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The development of the Proto-Indo-European syllabic liquids in Greek

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5. κράτος, κρατερός and related forms in Epic and Classical Greek

Among the evidence for the regular outcome of **r* in Ionic-Attic, the root of κράτερός, κρατύς, κράτος and related forms is of vital importance. Since the correct judgment of this body of forms requires rather lengthy philological digressions at several points, I have separated the treatment of this root κρατ- from that of the Caland forms discussed in the previous chapter.

5.1 Derivational history, semantics, etymology

The analysis of κρατερός and related forms is complicated by two issues. First, the mechanisms underlying the root allomorphy κρατ- ~ καρτ- in Epic and Classical Greek have not yet been explained in a convincing way.⁴⁰⁷ Secondly, it is extremely difficult to disentangle the various meanings of the Greek formations, and to determine which meanings are original. This applies especially to κρατερός and its variant καρτερός in Homer. These difficulties in reconstructing the original meaning of κρατερός have overshadowed all previous attempts to provide the root with an etymology.

5.1.1 Derivational history

Let us start with the first problem. Obviously, the root allomorphy κρατ- ~ καρτ- may have come into being in one pair of forms and subsequently acquired a certain productivity, but such a starting point has not been indicated up till now. This can be ascribed to the fact that κρατ- was dogmatically considered to be the regular outcome of **k_{rt}-*, as a consequence of which the root allomorph καρτ- had to be left unexplained.

In forms like κράτος, for instance, the original full grade κρετ- was replaced by a secondarily introduced zero grade κρατ-.

In chapter 1, we have seen that the Epic pair καρτερός ~ κρατερός is troublesome for all explanations of the alternation αρ ~ ρα which depart from a regular development **r* > Pion. -ρα-. Apart from καρτερός ~ κρατερός, the alternation is also attested in κράτος ~ κάρτος, κράτιστος ~ κάρτιστος, and κρατύνω ~ καρτύνω.⁴⁰⁸ Since κρατ- ~ καρτ- is restricted to just these four pairs, it was clearly not possible to randomly create a form in καρτ- on the basis of an existing form in κρατ-.⁴⁰⁹ Departing from καρτερός ~ κρατερός as the oldest pair, I will now show how and why the allomorphy κρατ- ~ καρτ- was extended to the other three formations, making use of one important anchor-point. The evidence of three different dialectal groups shows that the Proto-Greek root was **kret-*, with a full grade II. This proves that κρατ- is an analogical zero grade, and that its allomorph καρτ- is the regular outcome of the zero grade PGr. **k_{rt}-*.

⁴⁰⁷ As we have seen in section 1.4.2, Lejeune's invocation (1972: 196) of the "mobilité générale" of liquids within a syllable amounts to a resignation to the problem. Strunk merely remarks that "inlautendes -ap- < **-r-* vor Konsonant (...) auch sonst gelegentlich statt oder neben -pa- vorkommt." (1975: 286). In his extensive discussion of κρατύς and related words, de Lamberterie (1990) treats κρατ- and καρτ- as freely interchangeable metrical variants. The only attempt to explain the allomorphy that is known to me is Ruijgh (1980), on which see section 5.2.8 below.

⁴⁰⁸ The value of κραταίποδ- (Pi.) beside the compounds in κραται- (Hom.+) is not evident: see below.

⁴⁰⁹ Beside the compounds in -κρατής, forms in ⁺⁺-καρτής are unattested. Beside the Homeric adjective κραταίος, there is no ⁺⁺καρταίος. The latter fact is of special importance, because ⁺⁺καρταίος would have provided a welcome means to avoid the obligatory use of *muta cum liquida* scansion in κραταίος.

My evaluation of κράτος, κρατερός, and related forms will be bolstered by a closer consideration of synchronic derivational relations. Once we take the lexical meanings of base form and derivative into account, it often appears to be possible to corroborate the assumption of artificially created forms in Homer. We will see, for instance, that the epic form κράτος is only used as an adjectival abstract, and that it never has the meaning ‘power, control’ of the normal Ionic vernacular form κράτος. This strengthens the idea that κράτος is an inner-epic derivative of the doublet κρατερός ~ κρατερός. As far as lexical semantics are concerned, the single most problematic word is κρατερός ~ κρατερός. Given that this item served as the basis of almost the entire system of derivations, it is of the utmost importance to determine its lexical meanings. I will use the remainder of this introductory section to review the problems with previous etymologies, and to explore the problematic semantics of κρατερός ~ κρατερός.⁴¹⁰

5.1.2 The competing etymologies

There is no generally accepted etymology for κρατερός and derivatives. Since the early days of Indo-European studies, the Greek group has been compared to two different formations.⁴¹¹ On the one hand, the Epic adjective κρατύς has been equated with Goth. *hardus* ‘hard’ and its Germanic cognates, the root of which must be reconstructed as PIE **kert-* (full grade I). On the other hand, κρατύς and the abstract κράτος have been compared to an isolated Indo-Iranian hysterodynamic masculine noun: Ved. *krātu-*, Av. *xratu-*, to be reconstructed as PIE **krét-u-* (with full grade II).⁴¹²

The connection with Goth. *hardus* has most recently been advocated by de Lamberterie (1990). On the basis of an extensive discussion of the Greek attestations and their semantics, he argues that the primary meaning of κρατερός and κρατύς can be reconstructed as ‘hard, firm, solid’.⁴¹³ Furthermore, he proposes (1990: 349) to derive the Greek and Germanic forms from the verbal root **kert-* ‘to cut’.⁴¹⁴ The semantic development would lead from ‘cutting’ to ‘sharp’ and then, independently in Greek and Germanic, to ‘hard’.⁴¹⁵ A serious problem with this reconstruction is the different full grade slot of the root **kert-*.⁴¹⁶

⁴¹⁰ The lexical semantics of the other formations will be commented on in the following sections.

⁴¹¹ As far as the Greek evidence is concerned, previous treatments include Trümpy (1950: 202ff.), Frisk (s.v. κράτος), Benveniste (1969), Strunk (1975), Breuil (1989), de Lamberterie (1990: 323-353). For an overview of the older literature, see Strunk (1975: 265f.). Numerous discussions of the evidence have been obscured by careless citation of forms and/or by casual glossations of the individual lexemes. A salient example is Meier-Brügger in his *Indogermanische Sprachwissenschaft* (2010: 357): “Positiv κρατύς (so u.a. Homer; in der Prosa meist statt dessen κρατερός) ‘stark’ mit Komparativ ion. κρέσσων (...) und Superlativ κράτιστος”. The analysis to be provided below will show that almost every single one of these statements is erroneous.

⁴¹² I see no reason to reconstruct an acrostatic substantive on the basis of the Indo-Iranian noun, which is hysterodynamic. The meaning of the Indo-Iranian word has been much discussed; the best rendering seems to be ‘will-power, resolution, resolve’ (G. *Entschlossenheit*). The connection is accepted in the *Lfgre* (s.v. κρατύς): “Erbwort, verwandt mit Ved. *krātu-* ‘Kraft’ (...)”, referring to Mayrhofer (*EWaia*) and Risch (1974), and also (though with some hesitation) by Frisk (s.v. κράτος). The last-mentioned author explains κράτος in the sense ‘political power, authority’ by referring to Old English *craft*, which means both ‘physical power, force’ and ‘craft, insight, dexterity’.

⁴¹³ De Lamberterie concludes that “les emplois de κρατερός concordent avec ceux de κρατύς: l’un comme l’autre amènent à restituer pour κρατύς, par reconstruction interne, le sens de “dur, ferme, solide”.” (1990: 336).

⁴¹⁴ Found as a verbal root in Hitt. *kartae-zi* ‘to cut off’, Ved. *kart-* ‘to cut (off), split, break’ (pres. *kṛntāti*, them. aor. *kṛtá-*, both RV+), Lith. *kiřsti* ‘to hew, hit, cut’ (pres. 1s. *kertù*), and PSlav. **čersti* ‘to carve, slash’ (ORu. *čersti*).

⁴¹⁵ De Lamberterie convincingly derives Lith. *kartūs* ‘bitter’ from the same root, from earlier ‘sharp, biting’ (comparing Lith. *kiřstas* ‘sharp’, of persons). The Germanic and Baltic forms agree in *o*-vocalism, which de Lamberterie (1990: 349) takes from an action noun of the φόρος-type, attested in Lith. *kařtas*, OCS *kratъ* ‘once, time’ < **kórt-o-* (**cutting*). As for the development of meaning from ‘sharp’ to ‘hard’, “il suffit de rappeler que κραταιός et κρατερός s’appliquent volontiers à des matériaux tranchants, pierre et métal notamment” (l.c.).

⁴¹⁶ This problem is not discussed by de Lamberterie.

Moreover, as I will argue below, I do not consider it very probable 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 mostly accepted without any hesitation.⁴¹⁷ It is to be noted, however, that κρατός is attested only in the Epic formula κρατὺς Ἀργεῖφόντης, the meaning of which cannot be determined with certainty. Therefore, the casual translation of κρατός as ‘strong’ which one often comes across is misleading. Strunk claims that the proto-meaning of PIE **krétu-* was ‘magical power’, but even if we suppose that this was the meaning of Indo-Iranian **krātu-*, it is unlikely that any magic was involved in the Greek concept of κράτος.⁴¹⁸

There is also a morphological problem: the side-by-side of an adjective (κρατός) and an isolated substantive (Ved. *krātu-*) requires an explanation. Strunk envisages two possible ways. On the one hand, he considers the possibility that the Indo-Iranian noun was originally an adjective. He deems this unlikely, because *krātu-* is inflected according to the hysterodynamic type, whereas κρατός is a proterodynamic *u*-stem adjective and part of an extensive Caland system. Strunk therefore suggests that κρατός may have originally been an abstract noun. Assuming that the formula κρατὺς Ἀργεῖφόντης is comparable to cases like βῆη Ἡρακλεΐη “the Herakleid force” (for ‘Herakles’) and that it had the meaning “the Argos-killing power”, he suggests that κρατός could be reinterpreted as an adjective in such instances. But since we do not really know the underlying synchronic meaning of κρατὺς Ἀργεῖφόντης, this is mere speculation.

The problematic relation between κρατός and *krātu-* is now often explained within the framework of internal derivation, under the assumption that Ved. *krātu-* reflects an acrostically inflected substantive **krót-u-*, **krét-u-*. Nussbaum, for instance, refers to κρατός as an “item (...) that is demonstrably an internal derivative of an acrostatic substantive” (1998: 154 n. 189). But κρατός beside Ved. *krātu-* is one of the rare examples for the supposed derivation of a proterodynamic adjective from an acrostatic substantive. Moreover, the semantic connection between these two items is not apparent. Finally, the problem remains that the entire Caland system of κρατερός, the most extensive of its kind in Greek, would have to be based on one single form, the proterodynamic adjective **krét-u-*, **krt-éu-*. It is therefore better to suspend judgment on this point.

A final proposal to be mentioned is Benveniste (1969), who based his etymological analysis on the synchronic semantics of the various lexemes in Homer. Since he was unable to reconcile the different meanings of κρατερός ~ 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-*.⁴¹⁹ According to Benveniste, the semantic difference between these groups is preserved faithfully in most Greek formations. Thus, a form like κράτος allegedly means only ‘superiority,

⁴¹⁷ For example Nussbaum (1998: 147) and Widmer (2004: 123ff.).

⁴¹⁸ The same problem applies to Benveniste’s proposal (1969): see below. There are no appreciable magical connotations (herbs, spells, rituals, or the like) of κράτος. It is true that κράτος is often granted by a god in Homer, but that does not make it a magical force.

⁴¹⁹ Benveniste summarizes his chapter about κράτος as follows (1969: II, 71): “*Krátos* ne signifie ni «force physique» (*iskhús*, *sthénos*) ni «force d’âme» (*alkḗ*), 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».”

prevalence’, and κραταιός would only mean ‘hard, cruel’. The two sets of meanings are supposed to coexist only in κρατερός.⁴²⁰

A number of objections can be made to Benveniste’s analysis. First of all, the Caland morphology of the Greek words suggests that we are dealing with just one etymon. Secondly, the supposed separation between the two groups breaks down on a purely synchronic basis: several of Benveniste’s central claims appear to be incorrect or incomplete.⁴²¹ In the third place, it is hard to see why the original semantic difference would be preserved *only* in κρατερός ~ κρατηρός, and not in any of the other formations. Finally, the assumption that two different etyma independently made an adjective in -ερός is difficult to account for. In fact, the origin of the adjectival suffix -ερός (rather than the expected Caland form -ρός) has to my knowledge never been explained.

5.1.3 The semantics of κρατερός ~ κρατηρός in Epic Greek

All three etymological proposals just discussed have their own formal or semantic problems. In my view, these problems are due to the difficulty to derive the various different uses of κρατηρός in Homer from one basic meaning. There is also widespread disagreement on the meaning of other Homeric formations, such as κράτος and καρτύνω. Thus, κράτος is translated as ‘strength, force’ by some scholars, but as ‘superiority, prevalence’ by others; again others stress the fact that κράτος seems to mean ‘hardness’ in one Homeric passage.⁴²²

The meanings of κράτος, καρτύνω and other controversial forms will be discussed in section 5.2, together with their derivational history. In this introductory section, we will tackle a recurring problem: the meanings of κρατερός ~ κρατηρός in Homer. I propose to distinguish two basic sets:

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

The following examples may serve to illustrate these meanings.⁴²³

The meaning ‘fierce, impetuous’ is most frequently attested as a qualification of warriors. At first sight, it seems that ‘strong’ would do just as well, and this is indeed how κρατηρός is often translated. In a large number of instances, however, κρατηρός specifically qualifies a fierce warrior or a violent mythical being. I have to limit myself here to a brief discussion of the two most telling instances. In the first instance, the Trojan prince Helenos refers to Diomedes, who is at the summit of his *aristeia* at this point, as

ἄγριον αἰχμητὴν κρατερὸν μήστωρα φόβοιο,
ὄν δὲ ἐγὼ κάρτιστον Ἀχαιῶν φημι γενέσθαι.
οὐδ’ Ἀχιλλῆα ποθ’ ὥδέ γ’ ἐδείδιμεν ὄρχαμον ἀνδρῶν,

⁴²⁰ “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: II, 81).

⁴²¹ For instance, κράτος ~ κάρτος does not only mean ‘power, superiority’ (as claimed by Benveniste 1969, II: 77), but it may also mean ‘fierceness, violence’ or ‘endurance’ (see section 5.2.5). Furthermore, κράτος ~ κάρτος qualifies not only human warriors (o.c. 78), but also animals (*Od.* 3.370, denoting the endurance of horses) and iron (*Od.* 9.393).

⁴²² ‘strength, force’: traditionally accepted, see e.g. *LSJ* (s.v. κράτος: “*strength, might*, in Hom. esp. of *bodily strength*”) and *Lfgre* (s.v. κράτος: “*überlegene Kraft* (...) beruht im wesentlichen auf *Körperkraft, Stärke*”); ‘superiority, prevalence’: e.g. Benveniste (1969); κράτος ‘hardness’ is stressed by Trümper (1950) and de Lamberterie (1990). Breuil (1989) goes even further than Benveniste when he assumes that ‘prévalence’ is the basic meaning not only of κράτος, but even of κρατηρός. It is difficult to take Breuil’s semantic claims seriously, for instance when he speaks of the “dents prévalents” of a lion (1989: 34), or when he translates κρατερὴ ὑσμίνη as “lutte prévalente” (o.c. 35).

⁴²³ Whenever this is appropriate, I will also adduce examples that illustrate the meaning of other formations, such as κράτος or ἐπικρατέως.

ὄν πέρ φασι θεᾶς ἐξέμμεναι· ἀλλ' ὅδε λίην
μαίνεται, οὐδέ τις οἱ δύναται μένος ἰσοφαρίζειν (Il. 6.97-101).⁴²⁴

“... [that] savage spearman, a fierce causer of rout who, I say, 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 beyond all measure, and no one can 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 Hektor (once) and Diomedes (twice) are called κρατερὸν μήστωρα φόβοιο “impetuous causer of rout”.⁴²⁵ These routs are ascribed, here as elsewhere, to a μένος ‘drive’ which is so vehement (λίην μαίνεται) that no one is able to vie with Diomedes in this respect, and that he cannot be contained anymore by mere human effort. If Achilles is repeatedly⁴²⁶ called κρατερός, this is not only because he is strong, but primarily because of his unrestrained and fierce attacking spirit. When, during his own *aristeia*, he fights the river god Skamandros, the latter calls his brother Simoeis for help:

ἵνα παύσομεν ἄγριον ἄνδρα
ὅς δὴ νῦν κρατέει, μέμονεν δ' ὃ γε ἴσα θεοῖσι (Il. 21.314-5)

“so that we may stop the wild man who is now rampant, and who in his rage is equal to the gods”.

The violent deeds of Achilles are characterized in exactly the same terms as the berserk battle rage of Diomedes (note ἄγριον ἄνδρα ~ ἄγριον αἰχμητὴν, μαίνεται / μένος ~ μέμονεν): he is rampant and knows of no restraint. Only the extreme elemental forces of nature can contain his fierce might which is described with the verb κρατέει (cf. σθένος ἄνδρος ... σχῶμεν, 21.308-9).⁴²⁷ The same sense is also conveyed by the adverb ἐπικρατέως ‘impetuously’, e.g. when Achilles instructs Patroklos (Il. 16.80-2) to make a dashing sortie so that the Trojans will be driven away from the ships and the Achaeans may regain momentum.⁴²⁸

⁴²⁴ For the μένος of κρατερός Διομήδης, cf. among other places Il. 5.135-143 (θυμῷ μεμαῶς Τρώεσσι μάχεσθαι ..., μιν ... ἔλεν μένος ὥς τε λέοντα, ... ὥς μεμαῶς Τρώεσσι μίγῃ κρατερός Διομήδης) and also Il. 5.239-256 where Diomedes comments on his abilities to withstand the approach of Pandaros and Aeneas, who are themselves called κρατερόν.

⁴²⁵ Similarly, Phobos (personified ‘Router’) is called ἅμα κρατερός καὶ ἀταρβής, “both κρατερός and fearless” (Il. 13.299). To be sure, the unextended formula μήστωρα (-ε) φόβοιο also qualifies the couple Aeneas and Pandaros (5.272), their mythical team of horses which Diomedes has captured (8.108), and Patroklos (23.16); it alternates with μήστωρας (-ε) ἀϋτῆς (4x Il.).

⁴²⁶ Achilles’ being κρατερός is related to his descentance from Thetis on a number of occasions in the *Iliad*. The traditional nature of the epithet is corroborated by e.g. Pi. *Nem.* 7.27, where Aias is called κρᾶτιστος in battle second only to Achilles. This can be compared with Il. 2.768, where Aias is called μέγ’ ἄριστος of the Achaeans as long as Achilles, who is πολὺ φέρτατος, maintains his μῆνις. In the episode telling his encounter with Agenor, Achilles receives the qualification κρατερός three times: λύσσα ... κρατερή (Il. 21.542-3), ὑπὸ κρατεροῦ Ἀχιλῆος (21.553), λίην γὰρ κρατερός περὶ πάντων ἔστ’ ἀνθρώπων (21.566).

⁴²⁷ Some hundred lines earlier, Skamandros has directly addressed Achilles: ὦ Ἀχιλῆϋ, περὶ μὲν κρατέεις, περὶ δ’ αἵσυλα ῥέζεις ἀνδρῶν (Il. 21.214). When applied to a champion during his *aristeia*, the sense of κρατέω is ‘to be rampant’, cf. also Il. 5.175 (Diomedes) and Il. 16.124 (Patroklos). 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 “contain” Lycaon (οὐδέ μιν ἔσχε, 21.58), and he adds: “Let us see whether the grain-growing earth will hold him back, which even holds down the fierce [warrior]” (ἦ τε κατὰ κρατερόν περ ἐρύκει, 21.63). Again, only the elemental forces of water and earth are considered capable of restraining an impetuous warrior.

⁴²⁸ ἀλλὰ καὶ ὥς Πάτροκλε νεὼν ἅπο λοιγὸν ἀμύνων ἔμπεσ’ ἐπικρατέως, μὴ δὴ πυρὸς αἰθομένοιο νῆας ἐνιπρήσωσι, “... but even so, Patroklos, you must ward off doom by attacking them impetuously, so that they will not set the burning fire onto the ships” (Il. 16.80-2). The sort of dash intended here by Achilles is frequently described in purely physical terms, e.g. ἐν δ’ ἔπεσ’ ὑσμίνη ὑπεραεὶ ἴσος ἀέλλη, ἦ τε καθαλλομένη ἰοειδέα πόντον ὀρίνει. “He fell onto the turmoil of battle like a mighty gust of wind, which comes down and stirs the dark-

The examples adduced here can be easily multiplied.⁴²⁹ They show that κρατερός and related words are consistently applied to warriors that are impetuous, as a general characteristic, or rampant at one 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 βίη) is called κρατερός.⁴³⁰ Note that 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 Typhoeus (*Th.* 824). For all these creatures, the translation ‘fierce, violent’ is more pertinent than ‘strong’.

Not only fierce warriors are called κρατερός. In Homer, the compound καρτερόθυμος ‘with impetuous spirit’ qualifies Diomedes, Achilles, and Herakles, but in Hesiod (*Th.* 378) it appears as an epithet of the three winds, ‘blowing turbulently’. The frequent syntagm κρατερόν μένος qualifies not only the violent 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 κρατερόν μένος αἰθομένοιο, *Od.* 11.220). Arrows, spears, and thrown stones receive the epithet κρατερός on various occasions, e.g. κρατερόν βέλος ‘dashing missile’ (*Il.* 5.104, the arrow shot by Pandaros at Diomedes), βολάων τε κρατεράων (*Th.* 683, stones thrown by the Hundred-Arms and Titans). In these instances, κρατερός denotes the momentum and destructive impact of the missiles.⁴³¹ It is probable, in my view, that this use of κρατερός originated in its application to heavenly missiles, notably the thunderbolt, the weapon by means of which Zeus ensures his supremacy (κράτος).⁴³²

colored sea” (*Il.* 11.297-8). Another natural phenomenon is referred to in εἰ δὴ κυάνεον Τρώων νέφος ἀμφιέβηκε νηυσὶν ἐπικρατέως “if indeed the dark cloud of the Trojans mightily surrounds the ships” (*Il.* 16.67). In all cases, ἐπικρατέως qualifies a verb of motion in the context of war action.

⁴²⁹ In my view, the following passages are the most telling. (1) In *Il.* 17.206-13, Zeus takes pity on Hektor and decides to grant him μέγα κράτος. As a consequence, a violent battle spirit (personified as Ares) enters Hektor, and his limbs are filled with extreme physical force, ἀλκῆς καὶ σθένεος. (2) Very close to this is *Il.* 13.59-61, when the two Aiantes are filled with a vehement battle rage by Poseidon (πλήσεν μένεος κρατεροῖο, 13.60). The effect is that they get “light hands and feet”. In short character speeches (*Il.* 13.73-80), both warriors express this 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 show us that κράτος, like μένος, is a combination of physical might and mental prowess. (3) *Il.* 13.481-6, the difference between the old but still brave warrior Idomeneus and the young and impetuous Aeneas is described in terms of κράτος. Aeneas is καρτερός at killing warriors, he rushes swiftly, and has ἥβης ἄνθος, which is called the “greatest κράτος”. Normally, ἥβης ἄνθος is translated as ‘flower of youth’, but in my view ἄνθος is better rendered here as ‘excess, surplus’. As for Idomeneus, on the other hand, lines 512-15 tell us that “the joints of his feet were no longer firm in a charge (ὀρμηθέντι), that he might rush forth (ἐπαῖξαι) after his own cast or avoid an enemy’s. Therefore he would still ward off the pitiless day of doom in close combat, but in flight his feet no longer carried him swiftly away from battle.” This passage clearly shows that κράτος is not merely muscular strength, but an impetuous force characteristic of young warriors, which allows them to make rushes, react quickly, evade approaching missiles, or to dash away when in dire straits. (4) A final illustrative episode is Agenor’s encounter with Achilles (*Il.* 21.538-70), who is possessed by a λύσσα ... κρατερή ‘vehement rage’ (21.542-3) and is called κρατεροῦ Ἀχιλλῆος (21.553). Achilles is also called “by far the fiercest human warrior” (λίην γὰρ κρατερός περὶ πάντων ἔστ’ ἀνθρώπων, 21.566). The wording is strongly reminiscent of the comparison between Diomedes and Achilles in *Il.* 6.96-101.

⁴³⁰ 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).

⁴³¹ Nordheider (*Lfgre* s.v. κρατερός) recognizes this use when he speaks of “... Sachen ... die *kraftvoll*, *wichtig* sind und *kraftvoll* zupacken, schlagen, treffen”. More similar examples can be found in Pindar and the tragedians, e.g. καρτερώτατον βέλος ‘most dashing missile’ (*Pi. Ol.* 1.112), χερμάδας κραταιβόλους ‘stones hurled (or: hitting) with impetus’ (*E. Ba.* 1096), ἐκ χερὸς μεθέντα καρτερόν λίθον ‘launching a dashing stone from his hand’ (*E. fr.* 1044 Nauck). Note Pindar’s use of the factitive verb καρτύνειν (*Ol.* 13.95) in the meaning ‘to hurl’, i.e. to give the missiles a dashing momentum which creates a ρόμβον ‘whirl’.

⁴³² The κράτος which Zeus possesses and wields (οὗ τε κράτος ἐστὶ 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.*

In another set of attestations, κρατερός ‘vehement, violent’ qualifies turbulent motions or emotions. Highly frequent in formulae is κρατερὴ ὑσμίνη, where the epithet probably refers to the ardour or fervor of battle.⁴³³ The same meaning may be recognized in κρατερός τρόμος ‘vehement trembling’ (*Il.* 6.137), κρατερὴ λύσσα ‘vehement rage’ (*Il.* 9.239, 21.543, both of Achilles), κρατερόν δέος ‘extreme fear’ (*Od.* 14.88), κρατερόν μένος ‘impetuous spirit’ (*passim*) and perhaps also in κρατερ’ ἄλγεα ‘vehement pains’ (*Il.* 2.721, *Od.* 5.12 and *passim*).⁴³⁴

When κρατερός appears in a description of the physical qualities of a warrior or his body parts, it could be taken to mean ‘strong’ or ‘strength’. In most of these cases, however, κρατερός merely underlines the extreme nature of the force or violence that it qualifies,⁴³⁵ e.g. κάρτει χειρῶν ‘vigour of the arms’ (*Il.* 8.226 and 11.9), κρατερῇφι βίηφι(ν) ‘with unrestrained violence’ (*Il.* 21.501, *Od.* 9.476, 12.210). In post-Homeric poetry, we find e.g. κρατερόν σθένος (B. *Dith.* 4.40, of the victims of Theseus), κρατερᾶ ... ἰσχύϊ (B. *Epin.* 5.21, of Zeus’ eagle), χειρῶν ὑπο κρατερᾶν ‘under her violent hands’ (Pi. *Pyth.* 11.18, of the hands of Klytaimnestra).

In the second group of attestations, κρατερός ~ καρτερός means ‘steadfast, enduring; firm, solid’. Examples of ‘solid, hard’ are not yet numerous in Homeric Greek, but this meaning is ascertained in κρατερὴ ἀσπίς ‘solid, impenetrable shield’ (*Il.* 3.349 = 17.45) and κραταιγύαλος ‘with solid breastplates’ (*Il.* 19.361).⁴³⁶ Although after Homer, this material meaning is productive to a certain extent, it must be stressed that other supposed Homeric instances are ambiguous at best.⁴³⁷ Thus, ραιστήρα κρατερήν (*Il.* 18.477) is not necessarily a ‘hard hammer’, but rather the ‘fierce hammer’ of the smith Hephaestus, given that ραιστήρ is an 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 properties in action. Finally, κρατερῶνυξ (*Il.* 16.724 *passim*, cf. also κραταίπους, καρταίπους), a traditional epithet of horses and mules, is normally translated as ‘with hard hoofs’ (*LSJ*: ‘strong-hoofed, solid-hoofed’, cf. also Delebecque 1951: 148-50). However, a translation like ‘with fierce hoofs’ (referring to the violent kick of a horse’s leg) seems at least as appropriate and cannot be excluded.⁴³⁸

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 κρατερός, but the post-Homeric evidence strongly suggests that this is an old collocation. See e.g. δείσας μὴ τέξῃ κρατερώτερον ἄλλο κερανοῦ (Hes. fr. 343), καρτερόβρεντα Κρονίδα (Pi. fr. 155.1), κερανοῦ τε κρέσσον ἄλλο βέλος διώξει (Pi. *Isthm.* 8.34), παγκρατὴς κεραυνός (Pi. fr. 70b.15), ὃς δὴ κερανοῦ κρείσσον’ εὐρήσει φλόγα βροντῆς θ’ ὑπερβάλλοντα καρτερόν κτύπον ([A.] *PV* 922-23), ἀστραπᾶν κράτη νέμων (S. *OT* 201).

⁴³³ Attested in _T κατὰ (διὰ) κρατερὰς ὑσμίνας (7x *Il.*, 3x *Th.*), _T κατὰ κρατερὴν ὑσμίνην (10x *Il.*), (_T ἐνὶ) κρατερῇ ὑσμίνῃ (11x *Il.*, 1x *Od.*), _H κρατερὴ ὑσμίνη (1x *Il.*), _T ἀπὸ κρατερῆς ὑσμίνης (2x *Il.*), φυλόπιδος κρατερῆς _P (2x *Il.*).

⁴³⁴ A number of attributive uses of κρατερός can be rendered, as an alternative to ‘vehement’, with ‘lasting’: καρτερόν ἔλκος ‘lasting wound’, καρτερόν πένθος and κρατερ’ ἄλγεα ‘lasting pain(s)’; see below. For the meaning of the adverb κρατερῶς ‘heavily, vehemently’, cf. μάλα γὰρ κρατερῶς ἐμάχοντο (*Il.* 12.152), Διὶ δὲ κρατερῶς ἐνεμέσσα (*Il.* 13.16), μάλα γὰρ κρατερῶς ἀγόρευσε or ἀπέειπεν (*Il.* 8.29, 9.431 and 694). It is possible that Homer uses κρατερῶς instead of the older adverb κάρτα, which is preserved in Classical Ionic and in the tragedians.

⁴³⁵ Cf. Trümper (1950: 162): “Neben den Substantiven μένος, δεσμός und ἀνάγκη bedeutet κρατερός zweifellos ‘gewalttätig’. Ebenso sicher aber drückt das Adjektiv neben anderen Wörtern einfach eine Intensitätssteigerung aus und ist mit ‘gewaltig’ oder ‘wuchtig’ zu übersetzen.”

⁴³⁶ As we will see, κραται- functions as a Caland allomorph beside κρατερο- (see section 5.2.10).

⁴³⁷ After Homer: χῶρον ἀνὰ κρατερόν “place with solid ground” (*h. Herm.* 354), over which Hermes leads the cows he has stolen (so that they will leave no footprints), κραταίλειος ‘consisting of solid rock’ (A., E., containing λαῶς ‘stone’ as its second member), κραταίρινος ‘with a hard shield’, of a turtle (oracle in *Hdt.* 1.47), καρτερόν τεῖχος ‘solid defense wall’ (Class. prose).

⁴³⁸ Cf. Nordheider, *LfgRE* s.v. κραταίπους: “kann auf Trittsicherheit, Ausdauer oder harte Hufe gehen”.

The meanings ‘firm, tenacious, durable’ can be recognized in the following cases: κρατερῶ ἐνὶ δεσμῶ ‘in a firm/lasting bond’ (*Il.* 5.386),⁴³⁹ χερσὶ πίεζε νωλεμέως κρατερῇσι ‘he tenaciously checked [his mouth] with his firm hands’ (*Od.* 4.287-8, Odysseus seals the mouth of Antiklos as they lie in ambush in the Trojan horse), κρατερῇ δ’ ἔχεν ἱς Ὀδυσῆος (*Il.* 23.719-20, Odysseus puts a check on Menelaos during their wrestling match), and καρτερόν ὄρκον ‘lasting oath’.⁴⁴⁰ Furthermore, κρατερός ‘tenacious, stern’ is a fixed epithet of Hades (e.g. *Il.* 13.415, *Od.* 11.277, *h. Cer.* 404 and 430): as a πυλαρτής, he keeps the gates of the underworld sealed. In all these cases, we are dealing with a force that continues to be applied.

The verse-end κραταίπεδον οὔδας (*Od.* 23.46) is normally translated as ‘ground with hard soil’ (πέδον ‘ground’), but it has to be reinterpreted. In my view, the noun πέδη ‘shackle, hobble’ underlies the second member, so that κραταίπεδον means ‘which has firm shackles’. This syntagm is to be compared with κρατερῶ ἐνὶ δεσμῶ ‘(confined) in a firm bond’ (*Il.* 5.386). We have already encountered Hades as the ‘firm gatekeeper’ of the Netherworld; furthermore, Achilles refers to the Earth as putting a check even on men who are κρατερός (ἦ τε κατὰ κρατερόν περ ἐρύκει, *Il.* 21.63); and Moira shackles warriors when they are killed (verse-end Μοῖρα πέδησε, *passim*). This interpretation neatly fits the context of κραταίπεδον οὔδας. In the episode in question, the suitors have just been killed by Odysseus: “they are lying all around him, the one over the other, occupying the κραταίπεδον οὔδας”. It would make excellent sense if the poet referred here to the earth as a fetter that will contain the suitors forever: in this way, a lasting order could finally be restored in Ithaka.

Finally, in the following examples κρατερός refers to the stamina or resilience of warriors, and means ‘enduring, steadfast’: ἐστάμεναι κρατερῶς “to stand one’s ground firmly” (*Il.* 11.410, 13.56, 15.666), ἀλλ’ ἔχεο κρατερῶς, ὅτρυνε δὲ λαὸν ἅπαντα “but hold on firmly, and encourage all your men” (*Il.* 16.501 and 17.559), ἀμφίβασιν κρατερὴν ‘stout defense’ (*Il.* 5.623), φάλαγγες καρτεραί ‘enduring phalaxes’ (*Il.* 5.591-2, 13.126-7), κρατερὰς ... φάλαγγας (*Il.* 13.90), and |_P κρατεραί στίχες ἀσπιστάων ‘the enduring ranks of shieldbearing [hosts]’ (*Il.* 4.90 and 201).⁴⁴¹ This meaning is shared by Homeric Greek and the Classical language.

5.1.4 Reconstruction of the semantic developments

Given its wide range of synchronic meanings, it is no wonder that two radically different competing etymologies could be proposed for καρτερός ~ κρατερός. But how did one single lexical item acquire this broad range of meanings? Classical scholars have traditionally departed from a basic meaning ‘strong’, as canonized, for instance, in *LSJ* (s.v. κρατερός): “strong, stout, mighty, in Hom. mostly of bodily strength (...)”.⁴⁴² There are severe problems

⁴³⁹ Cf. also καρτερὰ δεσμά (*h. Merc.* 409), κρατερᾶς ἐν γυιοπέδαις ([A.] *PV* 168). It is possible that κρατερῇ has a similar meaning beside ἀνάγκη ‘coercion, constraint’ (κρατερῆς ὑπ’ ἀνάγκης Hes. *Th.*; *Cypr.*, *Parm.*).

⁴⁴⁰ This is variously translated as ‘strong oath’, ‘binding oath’, or the like. However, given that the most important characteristic of a good oath is that it lasts, the translation ‘firm, lasting oath’ seems more to the point. The original referent of ὄρκος is unknown.

⁴⁴¹ The meaning ‘enduring, steadfast’ is reflected in *LSJ*’s translation *stout* (as in the archaizing English expressions *stout resistance* and *stout supporter*). Benveniste and de Lamberterie have argued that the last three phrases denoted *impenetrable* phalanxes, in the sense that they were ‘hard, massive, solid’, but I agree with Strunk (1975: 270-75) that κρατερὰς ... φάλαγγας refers to the firm spirit of the warriors that form a phalanx: “Das homerische ἐκαρτόναντο φάλαγγας meint ein festigen der Schlachtreihen auch oder gerade unter Wiederherstellung des Abwehr- und Angriffsgeistes 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 ist damit zumindest in der homerischen Sprache (...) greifbar: mit ἀλκή, “kämpferischer Gesinnung”, haben beide Wörter zu Tun.” (Strunk 1975: 273-74).

⁴⁴² 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.

with this view. First of all, there are hardly any cases where κρατερός ~ κρατέρος clearly means ‘strong’: as a generic warrior epithet, κρατερός is best rendered as ‘fierce, impetuous, violent’. The latter meaning is also presupposed by formations κρατέω ‘to be rampant’ and ἐπικρατέως ‘impetuously’. The translation ‘strong’ is at best a common denominator: it serves to cover up the difficulty to reconcile the meanings ‘fierce, violent’ (when κρατερός qualifies warriors or monsters) and ‘solid, firm’ (when it qualifies shields, bonds, or oaths). Viewed from this perspective, we may understand why Benveniste proposed that two distinct etyma merged in κρατερός. But as we have seen, this idea cannot be upheld for morphological reasons.⁴⁴³

In his extensive semantic discussion, de Lamberterie (1990) takes an entirely different approach. In his view, ‘hard, solid’ was the basic meaning of κρατύς before this form went out of use. This is suggested, first of all, by the post-Homeric factitive verb κρατύνω which means ‘to harden, solidify, confirm’.⁴⁴⁴ Secondly, de Lamberterie claims that the original meaning of κρατερός is ‘hard, firm, solid’, and that this adjective is a replacement of κρατύς. Thirdly, he shows that κραταιός is semantically equivalent to κρατερός, and analyzes it as a reshaping of the old feminine of κρατύς (1990: 337-43). This allows him to derive all meanings of κρατερός ~ κρατύς directly from the root meaning of PIE *kert- ‘to cut’: ‘sharp’ would have developed to ‘severe’ and ‘violent’ on the one hand, and to ‘hard, solid’ on the other. This rethinking of the semantic problem is quite appealing, but as we have remarked above, the proposed etymological derivation from *kert- ‘to cut’ remains problematic in view of the wrong vowel slot.

Departing from the semantic framework set out in the previous section, we have to ask how the meanings ‘enduring, steadfast’ and ‘firm, solid’ is related to ‘fierce, impetuous’. The Homeric material allows us to retrace the intermediate steps. The traditional syntagm κρατερόν μένος can be translated as ‘fierce energy’ when it refers to the destructive ardor of fire that consumes a corpse (πυρὸς κρατερόν μένος αἰθομένοιο, *Od.* 11.220). Fire is a prototypical example of a fervent energy that cannot be stopped once it has been released. But κρατερόν μένος may also qualify an arduous stamina, as in the following passage. Menelaos and Meriones carry the corpse of Patroklos towards the ships and are protected from the assault of the Trojans by the Aiantes. They are compared to a pair of mules that draw heavy wooden logs from the mountains:

οἱ δ’ ὥς θ’ ἡμίονοι κρατερόν μένος ἀμφιβαλόντες
 ἔλκωσ’ ἐξ ὄρεος κατὰ παιπαλόεσσιν ἀταρπὸν
 ἢ δοκὸν ἢ δόρυ μέγα νήϊον· ἐν δέ τε θυμὸς
 τείρεθ’ ὁμοῦ καμάτῳ τε καὶ ἰδρῶ σπενδόντεσσιν·
 ὥς οἱ γ’ ἐμμεμαῶτε νέκυν φέρον. (Il. 17.742-6)

“Like mules that have dressed in enduring spirit drag forth from a mountain down a rugged path a beam or a large piece of shiptimber; and as they struggle, their spirit inside 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, both 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 the meaning ‘enduring’ also occur with

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 κρατερός as ἰσχυρός ‘strong’ is also reflected in the Ancient lexicographical tradition.

⁴⁴³ I will not further discuss Trümper (1950: 202-6), who assumes a basic meaning ‘hard’ for κρατερός and κράτος, and Breuil (1989), who gravely oversimplifies the Homeric situation by forcefully translating κρατερός as ‘prévalent’.

⁴⁴⁴ De Lamberterie (1990: 328-331) stresses that κρατύνω belongs to the technical terminology of medicine, metallurgy and warfare, which may preserve archaic meanings.

κράτος ~ κάρτος and other formations. Athena tells Nestor to provide his guest Telemachos with horses that are ἐλαφρότατοι θείειν καὶ κάρτος ἄριστοι (*Od.* 3.370), ‘swiftest in running and best in stamina’.⁴⁴⁵ In τείρεσθαι Τρῶας, μέγα δὲ κράτος εἶναι Ἀχαιῶν (*Il.* 6.387), the exhaustion of the Trojans is opposed to the untiring energy of the Achaeans. A beautiful testimony for κραταιός in the meaning ‘enduring, tough’ is *Od.* 18.383 (see section 5.2.10).

From ‘enduring, steadfast’ as a qualification of warriors or animals, it not difficult to arrive at ‘firm, tenacious’, qualification of an applied corporeal force, and at ‘durable, lasting’, qualifying bonds or oaths. The latter meaning may have developed to ‘solid, hard’ (e.g. in the sense of an impenetrable shield). A parallel semantic development is found in Latin *dūrus* ‘hard, solid, durable’ from PIE **duh₂-ró-* ‘distant; lasting long’ (Ved. *dūrā-* ‘far’, Gr. δηρόν ‘lasting long’, Arm. *erkar* ‘long’); the denominative verb *dūrāre* preserves the older meanings ‘to last; endure’.

On the basis of the above scenario, I conclude that the original meaning of the root κρετ- was ‘impetuous, fierce, vehement’. This appears to be in agreement with the careful treatment of κρατερός ~ καρτερός in the *Lfgre* by Nordheider, who posits *stark, kraftvoll* as the core meaning, but repeatedly uses translations like *unwiderstehlich, unbändig, unnachgiebig, unüberwindlich, unkonziliant, undurchdringlich, überschüssend, hemmungslos*.⁴⁴⁶ The apparent urge to render κρατερός ~ καρτερός with a privative German equivalent reflects an essential aspect of its original lexical meaning.⁴⁴⁷ The same basic meaning also allows us to understand certain specific uses of κράτος, κρατέω and ἐπικρατέως.⁴⁴⁸

Concerning the two etymologies that are traditionally proposed for the group of κρατερός, it now appears that the shared semantics with Goth. *hardus* ‘hard’ may have arisen by a series of secondary developments within Greek. Since the comparison with this Germanic word-group was already unlikely for formal reasons, it can be left aside. The comparison with Ved. *krātu-* and Av. *xratu-* ‘determination, resolve’ seems semantically conceivable, but it requires that Indo-Iranian underwent the same development from ‘impetuous, vehement’ to ‘enduring, steadfast’ as κρατερός, which is not trivial. It is also unlikely that the complete Caland system of Greek κρατερός was derived from a reinterpreted adjective κρατύς. I therefore find this etymology implausible, too.

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

5.2.1 The non-Ionic-Attic reflexes

Let us first review the evidence for an original root shape κρετ- (full grade II), which is well-attested in Aeolic and Arcado-Cyprian. In Lesbian poetry, Alcaeus attests the forms κρέτος, ἐπικρέτει, and κρέτησαι. The full grade is also preserved in onomastic material: Cypr. *ti-mo-ke-re-te-se* /Tīmokretēs/ (Masson, *ICS*² 361, 5th-4th c. BC), Arc. Δαικρετης (Dubois 1988, I: 111f.), Lesb. Δαμικρετης (Hodot 1974: 116). Last but not least, the comparative Hom. κρείσσων, Ion. κρέσσων, Att. κρείττων preserves the original full grade within Ionic-Attic.

⁴⁴⁵ Thus also de Lamberterie (1990: 346): “qualité physique de force et d’endurance”.

⁴⁴⁶ *Lfgre*, q.v. (slightly modified): “*stark, kraftvoll*, von Kriegern (gelegentlich Göttern, Tieren), Kräften, Sachen: *überlegen, überwältigend, unwiderstehlich, unbändig*, oder defensiv *unnachgiebig, unbeugsam, hart, fest*, gelegentlich mit Konnotation ‘*überschüssend, hemmungslos*’: *zu stark*, oder *mächtig*.”

⁴⁴⁷ English and French have less problems than German in expressing these concepts in a positive way, cf. ‘impetuous, turbulent, boisterous, riotous’, or ‘impétueux, fougueux, furieux, ardent’. I do not claim that *LSJ*’s translation ‘strong, stout, mighty’ is always incorrect, but the relation between κρατερός, κράτος and other related forms becomes much clearer if we depart from ‘impetuous, vehement’.

⁴⁴⁸ The meaning of κρατερός is much more restricted in Classical Attic: only ‘steadfast, enduring, solid’. The broad range of meanings of Homeric κρατερός ~ καρτερός could be explained if this pair is a conflation of κρατερός and κρατύς (cf. section 5.2.9).

The alleged evidence for a full grade I κερτ- merely consists of Lesbian personal names like Ικερτης, but apart from their late attestations, they probably have nothing to do with -κρητης (see Hodot 1974 and section 5.2.8 below). We may therefore safely depart from κρετ- in our analysis of the root allomorphy.

In Proto-Greek, the paradigm of the adjective and its forms of comparison was *κῆτερó-, *κρέτ-ιος-, *κρέτ-ιστο-.⁴⁴⁹ The positive is reflected in Central Cretan as καρτερος, the meaning of which is ‘having authority’ (over property, *Lex Gortyn, passim*) or ‘firm, trustworthy’ (as a witness, *IC IV 63.4*, Gortyn, late 6th or early 5th c.). A comparative κάρρων is attested in literary Doric (e.g. *Alcm. fr. 105*, *Epich. fr. 165*, *Sophr. fr. 59*).⁴⁵⁰ In its pre-form *κῆτ-ιος-, the zero grade was introduced from the positive. The form is found as καρτων ‘more trustworthy’ (as a witness) in Central Cretan (*Lex Gortyn*).⁴⁵¹ This dialect generalized the vocalized zero grade καρτ- in all other forms, cf. καρταιποδα ‘cattle’, καρτος ‘violence’ (*Lex Gortyn*), names in -καρτης, and the stative verb καρτέω (Lyttos).⁴⁵² Apparently, at least some West Greek dialects generalized the zero grade root of PGr. *κῆτερó- throughout the derivational system.⁴⁵³

Another dialectal reflex of PGr. *κῆτερó- is κοτερά· κρατερά, ισχυρά (Hsch.).⁴⁵⁴ This form is judged by *LSJ* to be “prob. Aeolic”, but since the regular vocalization of *r in the Aeolic dialects was -po- (see section 3.4), it seems more probable that κοτερά was taken from Arcadian or perhaps Cyprian. The regular Aeolic (or Lesbian) outcome of *κῆτερó- is unattested.⁴⁵⁵ Thus, reflexes of the adjective *κῆτερó- are found in three different dialect groups: Ionic-Attic, West Greek, and probably Arcado-Cyprian. This suggests that *κῆτερó- is an old, Proto-Greek adjective.

The semantics of the Cretan forms are interesting for the reconstruction of the Proto-Greek meanings. The meanings ‘firm’ or ‘having control’ are found for καρτερος (and the latter also underlies the comparative καρτων), whereas the abstract καρτος means ‘violence’. This means that the Cretan root has same semantic dichotomy found in Ionic-Attic κράτος, which means either ‘power, control’ or ‘violence, might’ (both in Homer and in Class. prose). Influence of Ionic-Attic on Cretan is unlikely: the Cretan forms have a different vowel slot, and their concrete meaning is slightly different. It seems, then, that the semantic split between ‘violence, might’ and ‘power, control’ can be reconstructed for Proto-Greek. This could be explained if the meaning of the inherited positive *κῆτερó- developed from ‘impetuous, violent’ to ‘enduring’ and then to ‘lasting, firm’ already in Proto-Greek, and in this way became detached from other forms with the root *kret-. The slot of the adjective

⁴⁴⁹ For the reconstruction of the root and suffix ablaut of the comparative and superlative, see section 4.1.3.

⁴⁵⁰ For further attestations, see *LSJ* s.v. κάρρων and Forssman (1980: 194 n. 77).

⁴⁵¹ It is commonly accepted that -τ- was analogically restored in Cretan after the stem of the positive καρτερος and the neuter καρτος (Bile 1988: 181, following *DELG* s.v. κράτος; Forssman 1980: 194-5 n. 83, following Lejeune 1972: 111). However, -ov- is not a comparative suffix, and the normal development of *-tj- after a consonant in Cretan is -σ- (e.g. πανσα = Ion. πᾶσα). Moreover, if Forssman’s derivation (1980) of ἔρρω ‘to be banished, go away’ from *wert-ǵō (PIE root *uert- ‘to turn’) is correct, the outcomes of *-rtj- and *-rs- must have been different already in proto-Doric. We therefore have to assume that the regular outcome *karrōn of *κῆτ-ιον- was remade into *kart-ιον- in early Cretan on the basis of the positive καρτερος, and that this form subsequently developed into the attested form καρτων-. In other words, its -τ- represents the outcome of restored *-tj- after a consonant (thus already Seiler 1950: 54). For the notation of intervocalic *-tj- in Cretan, cf. the overview in Bile (1988: 145-6). In Gortyn, it is regularly spelled -ττ- in the 5th c. BC, as against -θθ- in the 4th c. and later.

⁴⁵² Attested in *SEG* 35.991 (Lyttos, early 5th c.): pres. καρτει (line 3), aor. κα[ρ]τησαι (line 4-5).

⁴⁵³ On the West Greek development of *r, see section 3.3.

⁴⁵⁴ This gloss corroborates the meaning found in Classical prose, where both καρτερός and ισχυρός ‘strong’ are used to qualify walls and fortresses.

⁴⁵⁵ The forms κάρτερον (Alc. fr. 302 col. 2.19), καρτε[(Alc. fr. 119.19) may either be epicisms or borrowings from the Ionic vernacular (see section 3.4.5). In both instances, the meaning of the context is unclear.

corresponding to the neuter abstract **krétos* ‘violence, might’ was then filled up by the *u*-stem adjective **krétu-*, **krtéw-*, of which we only find traces in Ionic-Attic, but which may also have existed in other dialects.⁴⁵⁶

5.2.2 Synchronic description of the forms attested in Classical prose

Before analyzing the allomorphy κρατ- ~ καρτ- in Epic Greek, let us first consider the situation in Classical prose, because it appears that a clear distribution between the two allomorphs can be indicated there. The following table shows the forms with κρατ- and καρτ- attested in Classical Ionic-Attic. Forms that are exclusively attested in poetry are indicated as such; naturally, forms attested in 5th century hexameter poetry are not mentioned separately, because they are of Epic Greek origin. Unless otherwise indicated, all forms attested in Classical Attic prose are also found in Ionic prose (i.e. in Herodotus or in the Hippocratic Corpus).

Forms with κρατ-	Forms with καρτ-
κρατερός (poetic only)	καρτερός
κραταιός (poetic only)	
κραται- (poetic only) ⁴⁵⁷	καρται- (poetic only) ⁴⁵⁸
Κρατι- (in PN only)	Καρτι- (in PN only) ⁴⁵⁹
κράτος	κάρτος (poetic only) ⁴⁶⁰
-κρατής	
κρατέω	
κρατύνω	καρτύνω (poetic only) ⁴⁶¹
κρέσσων, κρείττων (-σσ-)	
κράτιστος	κάρτιστος (poetic only) ⁴⁶²
	κάρτα

Table 5.1: κρατ- versus καρτ- in Classical Ionic-Attic.

⁴⁵⁶ Further argumentation for this semantic development in pre-Homeric Ionic will be provided below.

⁴⁵⁷ The occurrence of Κραται- in epigraphically attested onomastic material may be due to Epic influence.

⁴⁵⁸ καρταί-ποδ- is only attested once in Pindar (*Ol.* 13.81) in the meaning ‘bull’, and in Cretan in the meaning ‘cattle’.

⁴⁵⁹ Meissner (1998: 244-5) thinks that the names in Καρτι- and Κρατι- are secondary creations on the model of names in Καλλι-, but this seems unlikely (see below). Note that names with a first member κρατερο- are not found except in Thessaly (Bechtel 1917: 260-1).

⁴⁶⁰ Outside of Epic Greek, κάρτος is attested only in Simon. fr. 15.1.2 and B. *Epin.* 5.114, which are clearly epicisms. In Hdt. 8.2, κάρτος is only a v.l. (codd. AB) for κράτος (as found in all other mss.). Trümper (1950: 202, referring to Bechtel 1921-24, III: 86 and Smyth 1894: 132) claimed that κάρτος is the Ionic form, as against Attic κράτος. In fact, neither Smyth nor Bechtel explicitly states this; both merely remark that the variation in the adjective καρτερός ~ κρατερός is also occasionally encountered in names in -καρτης. Bechtel mentions only three personal names, but in the first two his reading differs from that given by other editors: Μνεσικαρτες (Styra, where *IG* XII(9) 56, 283 reads Μνεσικαρίης); Καρτιες (ibid. 393), and Ευθυκαρτιδης ... ho Ναξσιος (Delos, *SGDI* 5419), which also occurs on a stone found on Naxos (*IG* XII Supp. 192.28). The names in -καρτης on an inscription from Miletus (McCabe, No. 142) belong to new citizens that emigrated from Crete. The 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 the single Naxian name Ευθυκαρτιδης. It is always possible that the few non-Cretan instances of -καρτης were influenced by names with a first member Καρτι- (beside Κρατι-). We may safely conclude that κράτος was the only Ionic form of the abstract.

⁴⁶¹ The only instance of καρτύνω in Classical poetry is Pi. *Ol.* 13.95, which may either be an epicism, or be due to a generalization of the licence to substitute ap for pa: cf. the use of θράσος and θάρσος as variants in Pindar, and the compound καρταίποδ- beside the Epic first member κραται-.

⁴⁶² Only in Simon. *Epigr.* 7.344.1.

Once we eliminate the forms restricted to poetry, the single most striking fact about the forms attested in Classical prose is that there are no real doublets. After Early Greek Epic, καρτερός is the only regular prose form; κρατερός is only found occasionally in poetry.⁴⁶³ Similarly, κάρτος, καρται-, καρτύνω, and κάρτιστος are each attested only once or twice in Classical poetry, and cannot be ascribed to the Ionic-Attic vernacular. The relic form κρατύς occurs only in one single Epic formula. This leaves us with καρτερός as the only adjective derived from this root attested in Classical prose. Thus, the Classical prose forms present the following picture:

- | | |
|---------------------------|--|
| 1. adj. καρτερός | ‘steadfast; firm’ |
| 2. comp. κρείττων | ‘better, stronger’ |
| 3. superl. κράτιστος | ‘most powerful, supreme’ |
| 4. adv. κάρτα | ‘very, heavily; surely’ |
| 5. abstract κράτος | ‘power, control’ (plus compounds in -κρατής) |
| → denom. verb κρατέω | ‘to rule’ |
| 6. factitive verb κρατύνω | ‘to harden, make solid’ |

This collection of forms is far from being a unity. The adjective καρτερός ‘persevering, steadfast, firm’ is no longer part of the same paradigm as κρείττων ‘better, stronger’, κράτιστος ‘most powerful, supreme’.⁴⁶⁴ This appears from its lexical meaning, as well as from the existence of a newly formed comparative καρτερώτερος, superlative καρτερώτατος, and derivatives καρτερία ‘perseverance’, καρτερέω ‘to persevere’.⁴⁶⁵ There is no synchronic relationship between καρτερός and the abstract κράτος ‘power, control’. The adverb and particle κάρτα ‘very, surely, certainly’ is derivationally isolated.⁴⁶⁶

As forms containing an aberrant vowel slot, καρτερός and κάρτα must be the regular reflexes of their respective pre-forms with zero grade root. Since the allomorph κρατ- cannot be the regular outcome of *k_ṛt-, its presence in each of the forms where it occurs has to be explained. Many of these forms are based on an older form with κρετ- into which the *a*-vocalism of the adjective was secondarily introduced: κράτος, ἐγκρατής ‘in control’⁴⁶⁷ and ἀκρατής ‘powerless’, and the derived stative verb κρατέω ‘to rule, be in control’ (cf. Lesb. ἐπικρέτει and κρέτησαι). As appears from the respective meanings, these forms are

⁴⁶³ Cf. *LSJ* (s.v. καρτερός): “Epic form of καρτερός”. All in all, καρτερός is rare after Homer, and most attestations are found in dactylic poetry (e.g. Sol., Thgn., Archil.). It is attested in Pi. (3x), B. (5x), Cor. (1x), and among the tragedians only in A. (2x, both times in lyrical parts). In Hdt., καρτερός only occurs twice, both times in oracles (1.67 and 8.77); Xenophon (*Mem.* 3.2.2, cf. also *Symp.* 4.6) gives a quotation of Homer, from which he subsequently cites. In Hp. *Art.* 2.10, καρτερὰς τὰς χεῖρας ἔχειν is epic phraseology. The only attestation in Classical Attic prose seems to be Pl. *Tim.* 75b, which speaks of a σαρκώδη ... καὶ νευρώδη κρατερὰν τε κεφαλὴν, a “head ... fleshy and sinewy and hard”. Here, it should be borne in mind that classical καρτερός does not occur in the meaning ‘hard’, so that this may again be an epicism. The same goes for the compound κρατεραύχην (Pl. *Phdr.* 253e).

⁴⁶⁴ It is usually thought that the Classical Attic grades of comparison κρείττων, κράτιστος synchronically belong to the positive ἀγαθός ‘good’, in the somewhat more specific sense ‘strong’. See e.g. Bornemann-Risch (1978: 55): “... ἄριστος (...) heisst oft ‘tüchtigster’, βελτ- bezeichnet besonders den ‘sittlich besseren’, κρεῖτ-/κρατ- (vgl. κράτος) eigentlich den ‘stärkeren’.” See also Kühner-Gerth I¹, 565. In my view, it may even be doubted whether κρείττων and κράτιστος belong to one and the same adjectival paradigm in Classical prose.

⁴⁶⁵ The special meaning ‘impetuous, fierce, violent’ of Epic καρτερός is not attested for καρτερός in Classical prose. In the tragedians, for instance, καρτερός does occur in the meaning ‘violent’; see *LSJ* (s.v. καρτερός) for the various different post-Homeric meanings in poetry.

⁴⁶⁶ As an adverb, κάρτα means ‘very, extremely’, but it is mostly attested as an asseverative particle meaning ‘surely, certainly’.

⁴⁶⁷ A relic meaning of ἐγκρατής is ‘tenacious’ (of the hand), i.e. “having κράτος = endurance inside”. The normal words for ‘able, powerful’ in Classical Greek are δυνατός and the participles κρατῶν, ἰσχύων.

derivationally associated in Classical Greek. Their semantic distance from καρτερός and κάρτα explains why κρατ- could not be introduced in these forms.

The case of κρατύνω is somewhat more complicated. In the tragedians, this verb has an intransitive meaning ‘to rule, gain control’ (+ gen.), but its older usage (normal in prose) is factitive: ‘to harden’ (e.g. bones, metal), ‘to strengthen, fortify’ (a place, position, or dominion). It is therefore difficult to synchronically derive κρατύνω from κράτος, because that abstract does not mean ‘hardness, solidity’ in Classical Greek. For this reason, de Lamberterie (1990: 328-30) argued that κρατύνω was derived from κρατύς when this was still a current form in Proto-Ionic. He concludes that at least one of the meanings of this adjective was ‘hard, solid’.⁴⁶⁸

In conclusion, the root appears in the Classical language in two productive and mutually unconnected lexemes καρτερός ‘persevering’ and κράτος ‘power, control’. Following productive schemes, new adjectives (e.g. ἐγκρατής), gradation forms (καρτερώτερος and καρτερώτατος), abstracts (καρτερία), and denominative verbs (κρατέω, κρατύνω, but καρτερέω) were based on these two forms. The clear semantic distinction between these two lexemes explains why the root shapes καρτ- and κρατ- are never mixed up in Classical prose. Finally, several relic forms have no synchronic connection to other forms of the same root: κάρτα, the primary forms of comparison κρείσσων, κράτιστος, and κρατύνω in the meaning ‘to harden, strengthen’.

5.2.3 Synchronic description of the forms attested in Homeric Greek

The following table shows the forms with κρατ- and καρτ- attested in Homeric Greek. As has been noted in the previous section, a number of the specifically Epic forms occur occasionally in other poetic genres.

Forms with κρατ-	Forms with καρτ-
κρατύς ⁴⁶⁹	
κρατερός	καρτερός
κρατερό-φρων, κρατερ-ῶνυξ	καρτερό-θυμος
κραταιός	
κραται- in compounds ⁴⁷⁰	
κράτος	κάρτος ⁴⁷¹
ἐπικρατέως ⁴⁷²	
(ἐπι-)κρατέω ⁴⁷³	
	καρτύνω
κρείσσων	
	κάρτιστος

Table 5.2: κρατ- versus καρτ- in Homeric Greek.

The most striking thing about the Homeric attestations is that there are only two doublets: κρατερός ~ καρτερός and κράτος ~ κάρτος. Thus, the scope of the allomorphy κρατ- ~ καρτ- is limited: epic poets could not just replace any κρατ- by καρτ- (or the other way around) for metrical convenience. In the following pages, I will show that a regular linguistic model

⁴⁶⁸ But κρατύνω ‘to rule’ must be derived from κράτος, cf. de Lamberterie (1990: 328 n. 4 with literature).

⁴⁶⁹ Only in κρατύς Ἀργεϊφόντης, a formula referring to Hermes.

⁴⁷⁰ In Homer only κραταίπεδος and κραταιγύαλος ‘with solid breastplates’; also κραταί-ποδ- in a Homeric *Vita*.

⁴⁷¹ After Early Greek Epic only in Tyr. 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.

⁴⁷² Only as an adverb in the meaning ‘impetuously’, but the adjective is also presupposed by ἐπικρατέω.

⁴⁷³ Present stem only; the aorist κρατῆσαι may have been avoided for metrical reasons. See section 5.2.5.

(proportional analogy) was at work in every instance where epic poets formed a metrical variant with κρατ- or καρτ-.

A second remarkable fact is that κραταιός and the forms with κραται- are completely isolated. At a first glance, they seem to contain -ρα- as the reflex of a syllabic liquid, and thereby to contradict the conclusion reached on the basis of καρτερός and κάρτα in Classical prose. But we have to take into account the fact that κραται- and κραταιός are limited to Epic Greek and later poetry, and that their use in the hexameter entails the use of the *muta cum liquida* licence, which is normally avoided in Homer.⁴⁷⁴ The reconstruction and derivational prehistory of κραται- and κραταιός will be discussed in sections 5.2.10-11; the origin of the reflex -ρα- in these and other epic forms will be examined in chapter 6. Let us now turn our attention, then, to the Epic doublets καρτερός ~ καρτερός and κράτος ~ κάρτος. Departing from the fact that καρτερός and κράτος are the regular prose forms, their origin can now be explained within Epic Greek.

5.2.4 καρτερός and κρατερός in Homer

From a morphological point of view, two adjectives are attested in Homer: κρατύς and καρτερός (with variant καρτερός). But when we take the semantics into consideration, it is unclear whether they were synchronic metrical variants of the type γλυκύς : γλυκερός. Being attested only as a relic in the formula κρατύς Ἀργεῖφόντης, epithet of Hermes, the meaning of κρατύς cannot be determined with certainty.⁴⁷⁵ On a synchronic level, then, Homeric Greek only has a pair καρτερός ~ κρατερός, with an extremely broad semantic scope.

How to explain the root allomorphs in this pair? Attempts to establish a semantic difference between καρτερός and κρατερός within Epic Greek turn out to be illusory. Both variants are used to qualify the same noun, as in φάλαγγες καρτεραί (Il. 5.591-2, 13.126-7) which is mirrored by κρατερὰς ... φάλαγγας (Il. 13.90, cf. also καρτεραί στίχες, 2x Il.).⁴⁷⁶ Furthermore, the first members of κρατερό-φρων and καρτερό-θυμος are clearly metrical variants. Thus, κρατερός and καρτερός function as plain metrical variants in Epic Greek. The Homeric numbers and distributions are as follows:

κρατερός (162 times)⁴⁷⁷: normal in all case forms

καρτερός (28 times): mainly -ός, -όν (mostly after |_B), rarely -οί, -αί, -ά.

The form καρτερός is awkward in the epic hexameter, because it cannot be used in a large number of case forms.⁴⁷⁸ On the other hand, κρατερός is almost six times as frequent as καρτερός, and it occurs in a large number of formulae: |_H κρατερός Διομήδης (or a metrically equivalent PN), |_P κρατερόν μήστωρα φόβοιο (3x), |_P κρατερόν μένος |_B (6x), |_H κρατερῆφι βίηφι(ν) (3x), |_T ἐνὶ κρατερῇ ὕσμινῃ (11x), |_T κατὰ κρατερὴν ὕσμινην (8x), etc. The larger relative frequency of κρατερός is obviously due to the anapestic structure of most of its case forms.⁴⁷⁹ Given that κρατερός is metrically so convenient and καρτερός so inconvenient, the

⁴⁷⁴ See chapter 6, and for the structural avoidance of *muta cum liquida* scansions, section 6.5.

⁴⁷⁵ Strunk (1975: 269-70) argues that κρατύς must originally have referred, in this formula, to a characteristic trait of Hermes such as cleverness, quick wits, or dexterity. Other scholars have argued for 'hard' or 'strong' as the meaning of κρατύς in this particular formula.

⁴⁷⁶ Furthermore, κρατερῇ ὕσμινῃ 'fierce battle' is mirrored in Classical prose by καρτερῇ μάχῃ 'id.'; Achilles and Diomedes are both qualified as καρτερός and κρατερός.

⁴⁷⁷ Including the adverb κρατερῶς and the comparative κρατερώτερος.

⁴⁷⁸ The Dp. and Gp. of all genders and most case forms of the feminine contain a cretic sequence.

⁴⁷⁹ This anapestic structure ensures that the forms can be used in any foot of the verse, without any noteworthy restrictions on the preceding or following word. The distribution of the 162 forms of κρατερός throughout the hexameter is as follows: 4th foot (after |_H) 94x, 3rd foot (after |_P) 28x, 2nd foot (before |_P) 26x, 5th foot 12x, 1st foot 2x. In these figures, each occurrence of a formula has been counted separately.

first question to be asked is: why does κρατερός exist at all? The only conceivable answer is that κρατερός was the older form, and that κρατερός arose within Epic Greek in order to supply for the impracticable case forms of κρατύς.

Thus, the Epic evidence neatly confirms the conclusion reached on the basis of the Classical prose forms: κρατερός is the outcome of Proto-Ionic **kr̥teró-*. It remains to indicate the model for creating κρατερός. It is possible that the different root shape was taken over from κρατύς before that form, moribund in the *Iliad* already, lost its currency. As will be shown in section 8.4.1, this κρατερός may have replaced a **kr̥teró-* that had been retained longer in Epic Greek. Subsequently, κρατερός may have been preferred over κρατύς for the reasons given in section 4.2.⁴⁸⁰

5.2.5 The s-stem forms and derivations in Homer

In view of the Lesbian form κρέτος, the oldest form of the neuter abstract in Ionic-Attic was clearly κράτος, with introduction of the root vowel of κρατύς. 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 that no semantic difference existed between κάρτος and κράτος, just as with κρατερός and καρτερός. The following table contains the numerical distribution between both Homeric variants in all attested case forms. For comparison, I have added the figures for σθένος ‘force’, which is semantically close to κράτος ~ κάρτος (and metrically equivalent to κράτος).⁴⁸¹

NAs.	κράτος (28x, of which 26x before _B)	κάρτος (6x, no fixed position)	σθένος (21x, of which 16x before _B)
Gs.	None	None	σθένεος (5x)
Ds.	κράτει (2x)	κάρτει (7x)	σθένει (15x, only <i>Il.</i>)
Recurring formulae	_T μέγα κράτος _B (6x)	None	_T μέγα σθένος _B (5x)

Table 5.3: forms of κράτος, κάρτος and σθένος in Homeric Greek

Forms of κράτος ~ κάρτος are only found in the NAs. and the Ds.⁴⁸² In the NAs., κράτος is by far the most frequent form, but in the Ds., κάρτει (5x *Il.*, 2x *Od.*) is more frequent than κράτει. This distribution can be explained as follows. With its sequence of three shorts, κράτει is awkward in the epic hexameter because it could be used only when followed by two consonants (as in ὃ τε κράτει προβεβήκη, *Il.* 16.54) or when followed by a vowel-initial and metrically long syllable (with elision or epic correption).⁴⁸³ Based on the already-existing allomorphy in the adjective καρτερός ~ κρατερός, the variant κάρτει was introduced as a supplement to the ill-practicable form κράτει. Subsequently, a new nominative-accusative

⁴⁸⁰ On the complicated relation between κρατερός and κρατύς, see further section 5.2.9.

⁴⁸¹ There is a syntactic difference between κράτος and σθένος, which seems to imply a lexical difference. While σθένος is often accompanied by ὄρσεν ‘evoked’, ὀρνυται ‘arises’, κράτος always takes a verb like δῶκεν, ἐγγυάλιξεν ‘gave’. Furthermore, σθένος denotes a powerful, but still inherently human characteristic, whereas κράτος has a tendency to be more extreme, and of heavenly or super-human 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.

⁴⁸² Hesiod does attest the genitive κράτεος (*Th.* 647, 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.

⁴⁸³ An irregular scansion is tolerated in οὗ τι κράτει γε (*Il.* 7.142), and a similar licence is found for the Ds. of σθένος in the first hemistich κάρτει τε σθένει τε |_T (2x). Even so, the possibility to create an unproblematic metrical alternative κάρτει was obviously welcome. It does not seem likely to me that we are dealing with remnants of an old dative (*-ei) or even instrumental (*-ē) ending. The parallel form σθένει is frequent in the formula |_H σθένει βλεμεαίν- (6x *Il.*; βλεμεαίνω is only attested in this formula), and is also used without metrical irregularity in σθένει |_P μεγάλῳ (2x *Il.*), κάρτει καὶ σθένει σφετέρῳ (*Il.* 17.322), and δίκησιν τε καὶ σθένει ᾧ (< **swōi*, *Il.* 16.542).

κάρτος was created beside the dative κάρτεϊ. There is no need, then, to assume inner-paradigmatic root ablaut in order to explain the side-by-side of κάρτος and κράτος in Epic Greek.

This scenario is corroborated by a semantic analysis of the abstracts κάρτος and κράτος.⁴⁸⁴ In Homer, κράτος has two primary meanings:⁴⁸⁵ 1. ‘power, dominion’, of a military leader or ruler,⁴⁸⁶ 2. ‘fierceness, brute force, power to endure’, in concrete violent confrontations.⁴⁸⁷ The second meaning is more frequent; the momentum in question is typically granted to warriors by Zeus or another divinity (formula μέγα κράτος ἐγγυαλίζω and inflected forms).

In the sense ‘fierceness’, both κράτος and κάρτος serve as adjectival abstracts to κρατερός ~ καρτερός. This becomes clear from the fact that κράτος ~ κάρτος has the same two nuances as its base form.⁴⁸⁸ In βίη καὶ κάρτεϊ εἶκον ‘yielding to violence and brute force’ (*Od.* 13.143 and 18.139, both about criminal or violent deeds) and κάρτεϊ χειρῶν ‘(trusting on) the might of their hands’ (*Il.* 8.226 = 11.9), κάρτος denotes a raw, unrestrained force.⁴⁸⁹ This meaning is also attested for the normal form κράτος in κράτος ... κτείνειν ‘the power to kill’ (*Il.* 11.192-3 = 207-8), as well as in *Od.* 1.70 where the unrestrained, brute physical force of Polyphemos is said to be greatest among the Cyclopes.⁴⁹⁰ The second nuance is ‘endurance’, the momentum or strength to persevere. This is attested e.g. in *Il.* 16.524 for κράτος (wounded Glaukos asks Athena for the power to endure), and in e.g. *Il.* 17.561-2 for

⁴⁸⁴ Cf. on Attic θράσος beside θρασύς, section 4.5.2.

⁴⁸⁵ With regard to the etymological connection with Germanic ‘hard’, it is often stressed that κράτος has the meaning ‘hardness’ in *Od.* 9.393. However, the context (9.391-4) is not unambiguous: ὥς δ’ ὅτ’ ἀνὴρ χαλκεὺς πέλεκυν μέγαν ἤε σκέπαρνον εἰν ὕδατι ψυχρῷ βάπτῃ μεγάλα ἰάχοντα φαρμάσσων· τὸ γὰρ αὖτε σιδήρου γε κράτος ἐστίν· ὥς τοῦ σίζ’ ὀφθαλμὸς ἐλαϊνέῳ περὶ μοχλῷ. “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 the eye [of the Cyclops] hiss around the stake of olive wood.” Here, the poet could just as well refer to the escaping sound and waterdamp as characteristic for the violent qualities of iron. The translation ultimately depends on the referent of τὸ γὰρ αὖτε.

⁴⁸⁶ That is, the lasting authority which allows a leader to control and direct a body of subjects. The *Lfgre* (s.v. κράτος) translates “Macht”. In my view, *Gewalt* is a better German equivalent: this may denote both an applied physical force and the authority of a ruler or institution. *Macht*, as a potential, is more appropriate as a translation of δύναμις.

⁴⁸⁷ Some scholars (e.g. Benveniste 1969, followed by Strunk 1975, cf. also Breuil 1989) have translated κράτος in this sense as ‘superiority, prevalence’ rather than ‘force, might’. Their motivation is that κράτος is often of a volatile and temporary character: it changes sides between Achaeans and Trojans according to the will of Zeus. But among its 30 attestations, there are unmistakable indications that κράτος is a force or energy of physical origin (cf. de Lamberterie 1990: 345-6 and especially O’Sullivan 1990: 14-15). I therefore reject abstract translations like ‘superiority’ or ‘prevalence’ for Homeric Greek. Nordheider’s definition of the core meaning as “überlegene Kraft” (*Lfgre* s.v. κράτος) is nothing more than a blend of Benveniste’s ‘superiority’ and the traditional translation ‘force, power’. Contrary to Nordheider and Trümper (1950: 204 on *Il.* 17.613), I think that victory (*Sieg*) is never required as a translation of κράτος in Homer.

⁴⁸⁸ Benveniste’s claim (1969: 77) that κρατερός may mean ‘superior, unrivalled’, corresponding the supposed meaning of κράτος ‘superiority’, is simply wrong. This is also noted by de Lamberterie when he stresses that κρατερός and κράτος are intimately related: “ce dernier groupe, loin de désigner uniquement la “supériorité”, se rapporte lui aussi, dans bien des cas, aux notions de dureté, de solidité, de vigueur” (1990: 345, with examples).

⁴⁸⁹ It is attractive to compare κάρτεϊ χειρῶν to a few instances where θάρσος has the same meaning, and especially to the formula θρασειάων ἀπὸ χειρῶν. Possibly, κράτος ~ κάρτος took over the semantic slot ‘fierceness, impetuosity’ from θάρσος after the latter form had changed its meaning to ‘confidence, courage, assurance’.

⁴⁹⁰ 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’ and κατὰ τὸ καρτερόν ‘with violence’ (e.g. in Hdt., Th., X., trag.).

the variant *κάρτος* (Menelaos is oppressed by enemies and asks Athena for the power to endure).⁴⁹¹

Thus, in the senses ‘violence, brute force’ and ‘endurance, stamina’, Homer uses *κάρτος* as a metrical alternative for *κράτος*. But in the meaning ‘power, dominion’, he uses only *κράτος* (and the denominative verbs *κρατέω* and *ἐπικρατέω* ‘to hold sway’).⁴⁹² Therefore, the doublet *κράτος* ~ *κάρτος* can be analyzed as a productive derivation from *κρατερός* ~ *καρτερός* in the meanings ‘impetuous, violent’ and ‘steadfast, enduring’.⁴⁹³

Homer has only one compound in *-κρατής*, and only as an adverb: *ἐπικρατέως* ‘impetuously’.⁴⁹⁴ A by-form in *++-καρτής* does not exist, because there was no metrical incentive to create it.⁴⁹⁵ An adjective **ἐπικρατής* is also presupposed by the denominative stative verb *ἐπικρατέω* ‘to have the upper hand; to be a slave’s master; rule over’ (7x Hom.).⁴⁹⁶ The more frequent stative verb is *κρατέω* (13x), which in Homer means ‘to have *κράτος*’ in both senses of the neuter: ‘to be rampant, berserk’ or ‘to be in control, rule’.⁴⁹⁷ On three occasions, *κρατέω* is modified by the adverb *μέγα* and therefore seems to be derivationally linked with *κράτος* (cf. *μέγα κράτος* 6x Hom.), not with *ἐπικρατής*.⁴⁹⁸ This could be important for the following reason. The aorist *κρατῆσαι* ‘to obtain victory or power’ is unattested in Homer. Although this may theoretically be due to chance, it seems more probable that the form, frequent as it is in Classical Greek, was avoided in Epic Greek for

⁴⁹¹ The passages in question are: (1) *δὸς δὲ κράτος, ὄφρ’ ἐτάροισι κεκλόμενος Λυκίοισιν ἐποτρύνω πολεμίζειν, αὐτὸς τ’ ἄμφι νέκυνι 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.* 16.524-6). Here, *κράτος* picks up the *ἔχεο κρατερῶς* in Sarpedon’s last words at *Il.* 16.501. (2) *εἰ γὰρ Ἀθήνη δοίη κάρτος ἐμοί, βελέων δ’ ἀπερύκοι ἐρωήν* ‘May Athena give me power [to continue fighting], and ward off the storm of arrows’ (*Il.* 17.561-2). In both cases, the power to persevere is granted by Athena. Cf. further *κάρτος τε βίη τε* (*Od.* 4.415, about the tenacious force which Menelaos has to apply in order to control the shape-shifting Old Man of the Sea) and *Od.* 3.370, where *κάρτος* denotes the endurance or stamina of horses.

⁴⁹² In Homer: *Il.* 16.54 (Agamemnon over the Achaeans), *Od.* 1.359 and 21.353 (Telemachus over his household), 5.4 (Zeus), 11.353 (Alkinoos over the Phaeacian *ἄϊμος*). This distribution also holds good for Hesiod, provided that one follows the evidence of the mss. for the genitive *κράτεος* 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). On *κάρτος* as ‘power’ in *Od.* 6.197, see the next footnote.

⁴⁹³ The situation is perhaps slightly more complicated. Although there is no trace of *κρατερός* ~ *καρτερός* in the meaning ‘powerful, in control’ in the *Iliad*, there are two possible instances of *καρτερός* in this meaning in the *Odyssey* (14.116 and 15.534). It is also possible to translate *κάρτος τε βίη τε* in *Od.* 6.197 as ‘(whose) power and might (are greatest among the Phaeacians)’, but this use of the formulaic collocation *κάρτος τε βίη τε* seems slightly strained. In my view, then, the specific sense ‘authority, dominion’ was found only in the abstract *κράτος* when *κρατερός* ~ *καρτερός* served as a model for the creation of *κάρτος*, and the incidental use of *καρτερός*, *κάρτος* in the meaning ‘power(ful)’ in the *Odyssey* is innovative. In Classical prose there is no trace of such derivational patterns (see section 5.2.2): *κράτος* and *καρτερός* have gone their separate ways.

⁴⁹⁴ Further attested in Hes. *Op.* 206, *Scut.* 321, 419, 461, Stes. fr. 40.24 Page, Ibyc. fr. S199.6 Page.

⁴⁹⁵ The only evidence for *-καρτής* comes from a few epigraphically attested personal names, most of which are of Cretan or Thera origin. See section 5.2.2 above.

⁴⁹⁶ It is conceivable that *νήσοισιν ἐπικρατέουσιν ἄριστοι* (3x *Od.*) is to be segmented as *νήσοισιν ἐπι κρατέουσιν ἄριστοι* ‘the noblemen that rule on / over (ἐπι) the islands’. It may further be asked whether *ἐπικρατής* is a possessive (‘having *κράτος* on it’) or deverbative compound in origin (see section 5.3 on the verbal root underlying *κρατερός*). Deverbative compounds in *-ής* are derivationally associated with uncompounded positive adjectives: in the present case with *κρατερός* ~ *καρτερός* on the surface, but perhaps more originally with *κρατύς*.

⁴⁹⁷ Commenting on cases where *κρατέω* refers to the *aristeia* of a warrior (Diomedes, Patroklos, Achilles), Trümper thinks that ‘*κρατέω* setzt hier Siege voraus und garantiert gleichzeitig weitere Siege. Es bedeutet nie ‘siegen’, sondern ‘siegreiche Überlegenheit haben.’’ (1950: 205). But in these instances, the past or future victories are accidental; *κρατέω* merely refers to the impetuous and destructive momentum of warriors.

⁴⁹⁸ Tucker (1990) has demonstrated that uncompounded stative verbs in *-έω* (with aorist in *-ησ-*) were originally derived from *s*-stem compounds, rather than from *s*-stem neuters. But *μέγα κρατέω* beside *μέγα κράτος* seems to prove that this derivational rule does have exceptions in Homer.

metrical reasons.⁴⁹⁹ It must then be asked why the metrical problem was not mended by creating an artificial form ⁺⁺κρατῆσαι, based on the proportion κράτος : κρατῆσαι (both spoken Ionic) = κάρτος : X (Epic Greek).⁵⁰⁰ Perhaps, the reason was that the meanings of κράτος ~ κάρτος ‘brute force; endurance’ and κρατῆσαι ‘to obtain victory or power’ (not: ⁺⁺‘to acquire brute force or endurance’) diverged too much. Synchronically, κρατῆσαι could only be linked to κράτος in the meaning ‘power, control’, not to κάρτος.

5.2.6 The forms of comparison in Homer

All Greek and Homeric grammars state that κρείσσων and κάρτιστος are the Homeric forms of comparison of the positive κρατύς, at least in origin. The *LfgreE*, for example, has one single entry “κρατύς (κρείσσων, κάρτιστος)”; cf. also Chantraine (1942: 255-6). This doctrine appears to be incorrect for two reasons. First, given that κρατύς has no clear synchronic meaning in Homer, one wonders why the grades of comparison are not included under καρτερός ~ κρατερός; indeed, as we will presently see, κάρτιστος is the synchronic superlative of καρτερός ~ κρατερός in Homer. Furthermore, κρείσσων is synchronically isolated, i.e. it remains without a corresponding positive or superlative in Homer.

Let us start with the superlative. Whereas Classical κράτιστος means ‘most powerful, supreme’, the Homeric form κάρτιστος (11x) only means ‘fiercest, most impetuous’, as I will now show. Synchronically, then, there is no doubt that κάρτιστος is the superlative of κρατερός ~ καρτερός, cf. the following two examples:

- (1) ἄγριον αἰχμητὴν κρατερὸν μήστωρα φόβοιο, ὃν δὴ ἐγὼ κάρτιστον Ἀχαιῶν φημι γενέσθαι “[Diomedes] that savage spearman, a fierce deviser of rout, who has definitely, I say, proven to be [the] fiercest [warrior] of the Achaeans” (*Il.* 6.98-9).⁵⁰¹
- (2) καρτίστην δὴ τὴν γε μάχην φάτο δύμεναι ἀνδρῶν “this battle of men, he said, was the fiercest that he ever took part in” (*Il.* 6.185) can be compared with κρατερὴ ὑσμίνη ‘fierce battle’ (frequent in Homer) and κρατερὴ μάχη ‘id.’ (*Hdt.*).

If the only Homeric superlative form is κάρτιστος, this is clearly due to the avoidance of κράτιστος for metrical reasons.⁵⁰² Given the doublet κρατερός ~ καρτερός, the variant form κάρτιστος could be created beside the regular vernacular form κράτιστος by means of a simple proportion.⁵⁰³

In eight of the remaining nine attestations, the being qualified as κάρτιστος is the fiercest or strongest of his group or class. Warriors may be ‘fiercest’ in comparison with other

⁴⁹⁹ As appears from the vocalism of Lesb. ἐπικρέτει and κρέτῃσαι, the pre-form of κρατῆσαι never contained a syllabic liquid. The use of κρατῆσαι would therefore require the application of the *muta cum liquida* licence, which is systematically avoided in Homer (see section 6.5). There is no reason to assume that κρατῆσαι did not yet exist in spoken Ionic when the Homeric poems reached their final form, because it belonged to the relatively small group of “Tucker statives”, in which the aorist in -ησ- is old (type θαρσέω : θαρσῆσαι, never -έ(σ)σαι, cf. Tucker 1990: 38).

⁵⁰⁰ As in Hom. καρτύνω for κρατύνω, which could be reanalyzed as derived from κάρτος ~ κράτος after the adjective κρατύς had become obsolete. See below.

⁵⁰¹ For a discussion of this passage, see section 5.1.3 above.

⁵⁰² See section 4.1.3 for the reconstruction of a full grade root **kret-isto-*, and section 6.5 on the avoidance of *McL* scansion before original full vowels

⁵⁰³ It may even be asked whether Homeric κάρτιστος ‘fiercest, most impetuous’ is a metrical replacement of the forerunner of Classical κράτιστος ‘best’, or whether it is merely an artificial superlative to καρτερός ~ κρατερός ‘fierce, impetuous’. There is no indication that Classical κράτιστος ‘best’ originally functioned as the superlative of καρτερός ‘steadfast, firm’. The isolated position of κράτιστος and κρείττων rather suggests that they were originally forms of comparison of κρατύς before that form became obsolete.

men.⁵⁰⁴ 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) “both the fiercest and the swiftest of birds”.

Since all the above cases point to the meaning ‘fiercest’, it is imperative to closely consider the only place in Homer where κάρτιστος allegedly means ‘best’, which is also its only occurrence in the *Odyssey*. Kirke instructs Odysseus how to evade the monstrous Skylla:

ἢ δέ τοι οὐ θνητή, ἀλλ’ ἀθάνατον κακὸν ἐστὶ,
 δεινὸν τ’ ἀργαλέον τε καὶ ἄγριον οὐδὲ μαχητόν·
 οὐδέ τις ἔστ’ ἀλκή· φυγέειν κάρτιστον ἀπ’ αὐτῆς.
 ἦν γὰρ δηθύνησθα κορυσσόμενος παρὰ πέτρῃ,
 δεῖδω μή σ’ ἐξαῦτις ἐφορμηθεῖσα κίχησι
 τόσσησιν κεφαλῇσι, τόσους δ’ ἐκ φῶτας ἔλῃται.
ἀλλὰ μάλα σφοδρῶς ἐλάαν, ... (*Od.* 12.118-24).

“She is not mortal, you know, but an immortal evil, terrible, difficult, and wild: not to be fought with. There is no defense: flee from her with all your might (κάρτιστον). For if you tarry arming yourself by the cliff, I fear that she will jump forth again and reach you with as many heads [as before], and catch as many men. No, you should row away most energetically, (...).”

Line 120 is commonly translated as: “there is no defence: fleeing from her is [the] best [thing to do]”.⁵⁰⁵ In my view, this grammatical interpretation is wrong; instead, I propose to read φυγέειν as an *infinitivus pro imperativo*, and to take κάρτιστον as an adverbially used accusative, which yields “you must flee from her with all your might”. This is clearly an improvement, because φυγέειν κάρτιστον is picked up in line 124 by μάλα σφοδρῶς ἐλάαν “you should row most energetically”, with the same syntactic construction.⁵⁰⁶ Note that the new translation of φυγέειν κάρτιστον agrees with the use of καρτερός ~ κρατερός to qualify darting missiles and warriors.⁵⁰⁷

A more complicated problem is the status of the Homeric comparative form κρείσσων ‘stronger, superior; better’ (17x). In West Greek dialects, as we have seen, the root shape of the positive καρτερός spread to all derivationally connected forms, including the comparative κάρρων (literary Doric), καρτων (Gortyn). Ionic-Attic, however, did not introduce the analogical root shape κρατ- in κρείσσων. This morphological difference with the superlative κράτιστος is remarkable and requires an explanation. It seems to follow that κρείσσων was no longer conceived of as the comparative of κρατύς when κρατ- was introduced in κράτιστος. Let us see whether a semantic justification of this conjecture can be found.

⁵⁰⁴ In *Il.* 1.266-68, the Lapiths and the Centaurs both receive the same epithet in a description of their war: κάρτιστοι δὴ κεῖνοι ἐπιχθονίων τράφεν ἀνδρῶν· κάρτιστοι μὲν ἔσαν καὶ καρτίστοις ἐμάχοντο φηρσὶν ὄρεσκόοισι καὶ ἐκπάγλως ἀπόλεσσαν. The Lapiths were the fiercest mythical human warriors, the Centaurs were the fiercest non-human mortal creatures. Here, κάρτιστοι ... ἀνδρῶν (also in κάρτιστον ... ἄνδρα *Il.* 7.155 and κάρτιστος ... ἀνδρῶν *Il.* 9.558) is paralleled by καρτερός ἀνὴρ (*Od.* 4.242, 4.271, 20.393).

⁵⁰⁵ Cf. Wyatt’s “the best course is to flee from her”; similarly *Lfgre* s.v. κρατύς. It may be wondered whether the syntax of this phrase is in order for a nominal sentence: wouldn’t one expect a predicative κάρτιστον to be in final position?

⁵⁰⁶ This is the only occurrence in Homer of the prose adjective σφοδρός, which means ‘violent, impetuous, fierce, energetic’. As I will show below, there is a complementary distribution between σφοδρός (Classical Attic prose) and καρτερός ~ κρατερός (Epic poetry). This corroborates the semantic reinterpretation of Epic κρατερός ~ καρτερός proposed in section 5.1.

⁵⁰⁷ Compare the words by which Idomeneus explains why he lacks κράτος, *Il.* 13.481-6.

In Classical Greek, κρείσσων generally means ‘better, stronger’, but in most Homeric attestations it still means ‘more powerful’, in a violent confrontation or a duel of main force.⁵⁰⁸ It never means ‘more violent, fiercer’ and is therefore paradigmatically unrelated to κρατερός ~ καρτερός and κάρτιστος, which refer either to the actual might or violence of a combatant, or to fierceness as a characteristic property. Hom. κρείσσων may be used either with or without a term of comparison in the genitive, depending on whether a concrete duel is thought of or whether a person is superior in general. There is an interesting restriction: almost without exception, κρείσσων refers to the result of a future conflict that can still be avoided.⁵⁰⁹ The seer Kalchas, for example, is afraid of Agamemnon’s wrath and asks Achilles for protection before he interprets the dire situation of the Achaeans. His motivation: κρείσσων γὰρ βασιλεύς ὅτε χώσεται ἀνδρὶ χέρηϊ (*Il.* 1.80), “For the king wins out [in the end] 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. Tell me whether you will safeguard me.” (1.80-3).⁵¹⁰ These lines illustrate how Agamemnon’s power (κράτος) is based on the principle that the threat is stronger than its execution.⁵¹¹

Thus, κρείσσων ‘stronger, superior’ (in an imaginary or future confrontation) is an isolated lexical item. Although its genitive complement betrays its origin as a comparative, it sometimes functions as a plain adjective. The paradigmatic isolation of κρείσσων is also reflected in the single occurrence of κρατερώτερον ... ἄεθλον ‘[no] fiercer contest’ (*Od.* 11.624), a newly-formed comparative which confirms that ‘fierce’ is a productive meaning of κρατερός in Homeric Greek.⁵¹² Given that κάρτιστος is current as the superlative of καρτερός, it does not come as a surprise that the superlative κρατερώτατος is absent from Homer; it is first attested in Hesiod, referring to iron, and may mean either ‘the hardest’ or ‘the fiercest’.⁵¹³

The above conclusions are summarized in the following table:

⁵⁰⁸ In one instance only (*Od.* 6.182), κρείσσων has the bleached meaning ‘better’ that is also found in Classical Greek.

⁵⁰⁹ The *Lfgre* gives the following translations: “aktuell sich im Zweikampf als der stärkere erweisen ~ siegen (...); dauernd stärker (...); mächtiger (...); mit Angabe des Bereichs überlegen in/an (...); besser (...).” The translation *siegen* goes back to e.g. Trümpy (1950). On the basis of *Il.* 3.71 νικήση κρείσσων τε γένηται, he asserted that victory is a prerequisite for being κρείσσων: “... für κρείσσων ist ein Sieg Voraussetzung” (1950: 205-6). But this formulation fails to take into account that κρείσσων never qualifies an actual victor in Homer. Parties that have won a specific confrontation are referred to in Homer with the ptc. νικήσας, and the victory with νίκη. I would therefore modify Trümpy’s words to: “für κρείσσων ist ein *gedachter* Sieg Voraussetzung”.

⁵¹⁰ Another illustrative case is *Il.* 19.216-9, when Odysseus addresses Achilles: ὦ Ἀχιλλεῦ Πηληϊὸς υἱὲ μέγα φέρτατ’ Ἀχαιῶν, κρείσσων 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 κρείσσων, cf. also *Il.* 20.334 and *Il.* 23.578. When the νόος ‘mind’ of Zeus is qualified as κρείσσων (*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.

⁵¹¹ κρείσσων appears to function as a positive in the meaning ‘having authority’ (+ gen., ‘over’) in one passage in the *Odyssey*: μήτερ ἐμή, τόξον μὲν Ἀχαιῶν οὐ τις ἐμεῖο κρείσσων, ᾧ κ’ ἐθέλω δόμεναί τε καὶ ἀρνήσασθαι (...) τῶν οὐ τις μ’ ἀέκοντα βιήσεται, αἱ κ’ ἐθέλωμι καὶ καθάπαξ ξείνῳ δόμεναι τάδε τόξα φέρεσθαι “Mother of mine, as for the bow, no one of the Achaeans has authority over me (οὐ τις ἐμεῖο κρείσσων), that I may give or deny it to whoever I wish to: (...). No one of them shall force me against my will (οὐ τις μ’ ἀέκοντα βιήσεται), even if I should wish to give this bow once and for all to the stranger to carry it away with him.” (*Od.* 21.344-45 and 348-9). Here, κρείσσων functions as the positive of an adjective corresponding to the abstract κράτος in the sense ‘power, authority’ (G. *Gewalt*) and κρατέω ‘to have authority’. In Class. Attic, κρείττων may also function as a positive, e.g. in κρείττων αὐτοῦ ‘in control (master) of oneself’.

⁵¹² In this instance, κρείσσων obviously would not have yielded the intended meaning. Thus, at least in the *Odyssey*, a new comparative κρατερώτερος was formed to κρατερός. Cf. also κρατερώτερον ἄλλο κεραυνοῦ “[no] fiercer [weapon] than lightning” (Hes. fr. 343.8).

⁵¹³ σίδηρος, ὃ περ κρατερώτατός ἐστιν (Hes. *Th.* 864).

Positive	Comparative	Superlative	Meaning
None	κρείσσων	None	‘superior’; ‘better’
κρατερός ~ καρτερός	κρατερώτερος	κάρτιστος	‘fiercer’, ‘fiercest’

Table 5.4: The grades of comparison with κρετ-, κρατ- ~ καρτ- in Homer

In Homer, κρείσσων is an isolated comparative formation, which synchronically belongs neither with κρατύς nor with καρτερός ~ κρατερός.⁵¹⁴ It mostly means ‘stronger, superior’, in an imaginary duel or confrontation. On the other hand, κάρτιστος functions as the superlative of καρτερός ~ κρατερός; κρατερώτερος is the synchronic comparative form.

5.2.7 κρατύς and καρτώνω in Homer

Hom. καρτώνω is attested only as a middle aorist ἐκαρτώναντο ‘they roused their ranks’ (vel sim.), in a repeated battle scene where a phalanx is formed.⁵¹⁵ It has a different vowel slot in comparison with κρατύς and Classical κρατώνω, which requires an explanation. It is unlikely that καρτώνω was derived from the weak stem of the *u*-stem adjective before the vocalization of *r*, because Epic καρτώνω and Classical κρατώνω cannot both be the direct reflex of a pre-form **krtu-n-je/o-*.

It is not hard to find a motive for the creation of καρτώνω: like κράτιστος, the vernacular form κρατώνω may have been avoided in Homeric Greek for metrical reasons.⁵¹⁶ It remains to find a linguistic model for the creation of καρτώνω. At first sight, it is not so easy to indicate an adequate proportional analogy. Whereas κάρτος and κάρτιστος are derivationally and semantically linked with καρτερός ~ κρατερός, καρτώνω can be derived neither directly from καρτερός nor from κρατύς (which has no by-form ⁺⁺καρτύς). But as we have seen in section 4.5, καρτώνω may have been created beside the Epic form κάρτος in the sense ‘fierceness’ or ‘endurance’. The model for the proportion may have been the semantically close θάρσος ‘perseverance, courage’ : θαρσύνω ‘to encourage’. Since the original form **θαρσύς* had been ousted by θαρσαλέος, and since the lexical meaning of θαρσύς was distinct, θαρσύνω could be derivationally associated with θάρσος.⁵¹⁷ Thus, it appears that ἐκαρτώναντο φάλαγγας ‘they roused their ranks’ (beside κρατερὰς φάλαγγας) is

⁵¹⁴ A different question is whether κρείττων and κράτιστος are still part of the same paradigm in Classical Attic. It is normally thought that both forms belong to the positive ἀγαθός. But since the preserved *e*-grade of κρείττων suggests that the comparative form was paradigmatically isolated in Proto-Ionic already, the same must be assumed for Classical Attic, until the contrary is proven.

⁵¹⁵ After Homer, ἐκαρτώναντο is attested once in Hesiod (*Th.* 676) and in two epic fragments (Antimachus fr. 42.1 Wyss, also ἐλκαρτώναντο μελικί fr. 64.4 Lloyd-Jones & Parsons). Furthermore, the active present καρτώνειν is attested once in Pindar (*Ol.* 13.95). The middle in the Homeric formula ἐκαρτώναντο φάλαγγας could be interpreted, in the terms of Allan (2003: 82f.), as a collective motion middle. This can be rendered in English translation as “they filled *their* ranks with battle spirit”. Strunk (1975) points out that the line preceding ἐκαρτώναντο φάλαγγας, in all three Homeric attestations, depicts an army leader arousing the battle spirit (ἀλκή ‘resilience’) of his men. In his discussion of *Il.* 16.563, he remarks that the consequences of the leader’s call to arms “bestehen nicht nur im blossen zusammenrücken der φάλαγγες, sondern auch darin, dass diese neuen Anlass zum Kampf sehen und frischen Mut fassen.” (1975: 273). Alternative interpretations have been proposed by Benveniste (1969, II: 80, “la phalanx comme un corps solide et métallique”) and de Lamberterie (1990: 332, “objets solides et massifs ... lignes de bataille (φάλαγγες) aussi infrangibles qu’une bille de bois”). In my view, this is less likely: in Homeric imagery, bars, logs and walls are easily broken when they meet with a force that is κρατερός. Cf. especially *Il.* 5.85-94, where Diomedes, whose fixed epithet is κρατερός, is compared to a raging river that breaks everything on its way. Needless to say, it is difficult to pinpoint the meaning of καρτώνω with certainty on the basis of one single formula.

⁵¹⁶ The Ionic vernacular form κρατώνω was derived from the *u*-stem adjective κρατύς after the vocalization of the syllabic liquids and the subsequent spread of the allomorph κρατ- (see section 4.4).

⁵¹⁷ Strunk (1975: 296) gives the same derivation, but does not explain the other distributional peculiarities of the variations κρατ- ~ καρτ- and θρασ- ~ θαρσ-.

not necessarily a replacement of the vernacular form κρατύνω ‘to harden, strengthen’.⁵¹⁸ Rather, καρτύνω is a productive inner-Epic creation, meaning ‘to provide with κάρτος’.⁵¹⁹

5.2.8 κάρτα

The adverb and particle κάρτα ‘very, much, vehemently; surely, indeed’ is well-attested in Classical Ionic-Attic: it is frequent in Herodotus, the Hippocratic corpus, and the tragedians. However, it is not found in inscriptions, Thucydides, Xenophon and the orators, only 3x in Aristophanes, and it is almost entirely shunned in hexameter poetry.⁵²⁰ Its absence from prose authors suggests that κάρτα was not current anymore in spoken Classical Attic. On the other hand, it remained alive in Eastern Ionic.⁵²¹ As I will argue below, σφόδρα was introduced as a replacement of κάρτα in spoken Attic.

Since the semantic relation between κάρτα and κρατερός ~ καρτερός in the sense ‘fierce, vehement’ is clear, it cannot be doubted that κάρτα is the regular outcome in Ionic-Attic of a pre-form **kṛta* that was part of a Caland system.⁵²² The reconstruction of the Greek adverbial marker -α and the origin of the type are still subject to debate.⁵²³ In any case, the zero grade -αρ- in κάρτα (beside the full grade **kret-*) is at odds with the development of **r-* to -ρα- that was hitherto assumed to be regular. Illustrative for the embarrassment of previous scholarship is Ruijgh’s explanation of κάρτα:

“Noter que **κράτα* est le résultat phonétique de **kṛtḥ* (cf. ἔδρακον : δέρκομαι). 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 κρατερός etc.” (1980: 563 n. 10).

The assumption that not only κάρτα, but also καρτερός, κάρτιστος, κάρτος, and καρτύνω must be explained as influenced by an unattested form **κέρτος* is bizarre. First of all, there is no evidence whatsoever for a form **κέρτος* in Ionic-Attic. As we have seen above, the epicisms κάρτος and κάρτιστος can be explained after the model of καρτερός : κρατερός, where καρτερός is the regular reflex of **kṛteró-*. Furthermore, the name Ἰκερτης is not found in Ionic, but in Lesbian. As is shown by Hodot (1974), Lesbian names in -κρέτης are attested from the 5th c. BC onward, whereas those in -κέρτης first appear in the 2nd c. BC and for this

⁵¹⁸ According to de Lamberterie, the meaning of κρατύνω in later prose is “«endurcir, raffermir, consolider, renforcer», au sens le plus matériel, le plus physique du terme.” (1990: 328).

⁵¹⁹ In the words of Strunk (1975: 273-4): “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.” Strunk claims that his philological analysis of Homeric καρτύνω does not depend on the derivation of this factitive verb from κάρτος (1975: 294), but I think that de Lamberterie (l.c.) is right in claiming that it does.

⁵²⁰ In pre-Classical poetry: Aristaeas Epicus fr. 5.2, Empedocles fr. 4.4; cf. also Protagoras fr. 9, Epicharmus fr. 85 Austin. It occurs only once in Plato (*Tim.* 25d, in the story about Atlantis). This story is said to be due to the elder Critias, who is supposed to have heard it from Solon (ὕπὸ τοῦ παλαιοῦ Κριτίου κατ’ ἀκοὴν τὴν Σόλωνος), who in turn was told it by an Egyptian priest. This is a clear example of high register speech.

⁵²¹ That κάρτα was current in spoken Eastern Ionic is suggested by its occurrence not only in Herodotus, but especially in Hipponax (fr. 32.2), the poet from Ephesus and Clazomenae reputed for his use of low register vocabulary.

⁵²² In both form and meaning, κάρτα looks like Lat. *certus* ‘certain’, adverb *certe* ‘certainly, surely’, but the similarities are merely superficial because the Latin word is derived from **kritó-* ‘sifted, distinguished’ (cf. de Vaan *EDL* q.v.).

⁵²³ For a summary of different theories regarding the origin of the Greek adverbs in -α, see Meissner (2006: 63-4). Ruijgh (1980) argued that the zero grade root vocalism of the type κάρτα (found e.g. in μάλα, ἄρα, ῥίμφα, τάχα, πύκα, λίγα, λίπα, etc.) was inherited from PIE.

reason must be considered an innovation. Hodot convincingly suggests that Lesb. -κέρτης is the regular outcome of -κρίτης.⁵²⁴

Ruijgh misses the mark again (1980: 562 n. 8) when suggesting that κάρτα could be the result of a post-Homeric analogy μάλα : μάλιστα = X : κάρτιστα. This model breaks down because the artificial Homeric form κάρτιστος does not occur in the Ionic vernacular, which is where κάρτα is attested. As an alternative model, one could think of a proportion μάλα : μαλερός = X : καρτερός. This would require, however, that μαλερός ‘crushing, vehement’ was current in spoken Ionic-Attic when the analogy was operative.⁵²⁵ Again, there are serious objections: μαλερός is an exclusively poetic adjective, whereas κάρτα is also a prose form. Moreover, μαλερός would in this case have to be the outcome of a *ró*-adjective inherited from PIE, but a pre-form **mlh₁-ró-* could only yield ⁺⁺βληρός.⁵²⁶ I do not accept the existence of a Caland suffix **-eró-* alternating with *-ró-* in Proto-Greek, because all instances of the suffix *-erós* can be explained as having spread from καρτερός ~ κρατερός (see section 5.3.2 below). Therefore, μαλερός is better explained as an artificial poetic form, analogical beside μάλα on the model of κάρτα : καρτερός (or **kárta* : **karteró-*).

Since an analogical explanation of κάρτα cannot be given, we may conclude that it is the regular outcome of Proto-Greek **k_ṛta* (or **k_ṛtN*). Beside καρτερός, it is another valuable piece of evidence for the regular development **ṛ* > -ap- in Proto-Ionic.

5.2.9 From Proto-Ionic to Classical Ionic-Attic

On the basis of our comparison between the Homeric and Classical Ionic-Attic forms in the preceding sections, it is possible to reconstruct the following situation for Proto-Ionic, directly after the vocalization of **ṛ* to -ap- and the levelling in κρατύς, but before the generalization of -pa- to other former full grade forms:

1. **krétos*, **-kretés* (→ **kretéō*)

2. *kratús* (→ *kratúnō*)

Grades of comparison **krétsōn*, **krétistos*

⁵²⁴ Meissner (2006: 68-9) thinks that the compounds in -κρετής are recent creations anyway: “It seems quite possible that personal names in -κρέτης were created independently in the different dialects. This suggestion is supported by the fact that personal names formed from this root only appear to become frequent in post-Homeric Greek. κρέτος / κράτος does not seem to belong to the established lexical inventory out of which personal names are formed.”

⁵²⁵ I do not share Frisk’s doubts as to whether the meaning of μαλερός can still be established (s.v. μαλερός, “wegen der unbestimmten Bedeutung ohne überzeugende Etymologie”, with references to earlier proposals by Bechtel and Osthoff). I also disagree with Blanc’s claim (*DELG*, Supp. s.v. μαλερός) that μαλερός refers to the brilliant splendor of light, and therefore cannot accept his etymological speculations. Just like κρατερός, μαλερός qualifies lions, war, and especially fire as a consuming elemental force (in Homer only the last-mentioned usage). It can therefore be translated as ‘crushing, vehement’. In fact, μαλερός qualifies the same nouns as κρατερός. In Homer, μαλερῷ πυρὶ (2x *Il.*) and μαλεροῦ πυρός (1x *Il.*) can be compared with πυρὸς κρατερόν μένος αἰθομένοιο (*Od.* 11.220). After Homer, we find: (1) πυρὸς μαλερὰ γνάθος “the crushing jaw of fire” (*A. Choe.* 325); (2) Ἀρεά τε τὸν μαλερόν (*S. OT* 190), which may echo Ἀρηϊ κρατερῷ (*Il.* 2.515, cf. also *Scut.* 446) and formulae like φυλόπιδος κρατερῆς, κρατερὴ ὕσμινη; (3) πόθῳ στένεται μαλερῷ “[she] laments in vehement longing [for them]” (*A. Pers.* 62, transl. Weir Smyth), which may be compared with e.g. κρατερός ... τρόμος ‘vehement trembling’ (*Il.* 6.137) or κρατερόν δέος ‘heavy fear’ (*Od.*); (4) μαλερῶν λεόντων ‘fierce lions’ (*A. Ag.* 141), which may be compared with κρατεροῖολέοντος (*Od.* 4.335) and κρατεροῖσιν ὁδοῦσιν (*Il.* 11.113-4, of a lion’s teeth). A somewhat aberrant use of μαλερός is found only in *Pi. Ol.* 9.21-2: ἐγὼ δέ τοι φίλαν πόλιν μαλεραῖς ἐπιφλέγων αἰοδαῖς, “But as for me, while I light up (ἐπιφλέγων) that dear city with my μαλεραῖς songs, ...” (transl. after Race). It seems that μαλεραῖς ... αἰοδαῖς refers to Pindar’s Ode as a bundle of fiery arrows that bring light to the city. But as always in Pindar, the precise interpretation of the passage crucially depends on the rest of the Ode, which cannot be dealt with here.

⁵²⁶ In my view, the root underlying μάλα, μᾶλλον, μάλιστα is probably **melh₁-* ‘to crush, grind’. If the analogical model proposed in the text is correct, the meaning of μαλερός ‘crushing, vehement’ may have been influenced by that of καρτερός ~ κρατερός ‘vehement, violent’.

3. *karterós*
4. *kárta*

Homeric Greek and Classical Ionic-Attic agree in the *s*-stem forms κράτος, -κρατής, and in the denominative verb κρατέω. This suggests that -ρα- was introduced in κράτος, -κρατής, and the superlative κράτιστος as early as Proto-Ionic. This led to the following situation, still in Proto-Ionic:⁵²⁷

1. κράτος ‘power, control; fierceness’, -κρατής (→ κρατέω ‘to be in control; be rampant’)
2. κρατύς ‘impetuous, fierce’ (→ κρατύνω ‘to make firm, harden’)
- κράτιστος ‘most powerful’
- κρέσσων ‘superior’⁵²⁸
3. καρτερός ‘steadfast, enduring, firm’
4. κάρτα ‘vehemently’ > ‘very’

The allomorph κρατ- first arose in the adjective κρατύς.⁵²⁹ Whereas κρατύς is not alive anymore even in Homer, it must have been so in Proto-Ionic because the introduction of *a*-vocalism in κράτος and Class. κράτιστος started from this form. It is not possible to assume influence of καρτερός on **krétos*, **krétistos*. Firstly, the forms καρτερός and κράτος have different vowel slots in Classical Greek.⁵³⁰ The variant κρατερός cannot be reconstructed for spoken Proto-Ionic, because it clearly arose in Epic Greek. If the Homeric doublet κρατερός ~ καρτερός had also existed in the vernacular, it would be hard to understand why καρτερός, with its deviant vowel slot, was not ousted by κρατερός. Secondly, the semantic distance between Class. καρτερός ‘steadfast, firm’ and κράτος ‘power’ is considerable. As we have seen above, this is reflected in the fact that both forms have their own system of derivations in Classical Attic. A final argument for a prolonged presence of κρατύς in the vernacular is the productivity of the adjectives in -ερός beside -ύς in Epic Greek. As I suggest in section 5.3.2, the only feasible model for the creation of e.g. γλυκερός beside γλυκύς is a proportion with κρατύς : κρατερός.

Two questions remain. Why were there two adjectives καρτερός and κρατύς? And by which forms was κρατύς replaced in Homeric Greek and in Classical prose?

As for the first question, the formal distinction between κρατύς and καρτερός must have been accompanied by a semantic difference in Proto-Ionic. As we have seen, the Epic doublet κρατερός ~ καρτερός has two very different basic meanings: 1. ‘impetuous, violent, fierce’, and 2. ‘steadfast, enduring; solid, firm’. In Classical Attic, καρτερός never means ‘impetuous, violent, fierce’, and ‘solid, firm’ is limited to a few lexicalized collocations;⁵³¹ its only productive meaning is ‘steadfast, enduring, obstinate’, in continuity with Epic usage. It is therefore conceivable that Epic κρατερός ~ καρτερός is a conflation of Proto-Ionic κρατύς *‘impetuous, violent, fierce’ and καρτερός ‘enduring, firm’.⁵³²

⁵²⁷ In this overview, I leave aside the precursors of κραταιός and κραται- because these forms were limited to Epic poetry. Their vocalization has a special, inner-Epic explanation (see chapter 6). The case of κρατύς (also limited to Epic Greek) is different, as I will demonstrate in the main text.

⁵²⁸ I have cited the forms in Greek alphabet, because this is the situation reflected in Homer. Of course, the Proto-Ionic form was **kretsōn* rather than κρέσσων: the outcome of intervocalic *-tī- over a morpheme boundary was Proto-Ionic *-ts-.

⁵²⁹ See section 4.2.1 on the spread of *a*-vocalism in cases like θαρσέω, ταρβέω, where the respective *u*-stem adjective was ousted too.

⁵³⁰ The result of a levelling of the zero grade would have to be ++κάρτος, as in Gortynian Cretan (see below).

⁵³¹ These meanings do occur for καρτερός in Herodotus, see below.

⁵³² That κρατερός replaced κρατύς has been argued by de Lamberterie (1990: 331ff.), who considers the meaning ‘solid, hard’ to be original.

As for the second question, it appears to be possible to indicate the lexemes by which κρατύς was ousted in Classical Ionic and Attic. Classical Attic prose has its own adjective for ‘impetuous, violent, fierce’: σφοδρός. This also frequently appears as an adverb σφόδρα ‘vehemently, heavily; very’. Class. σφοδρός and Epic κρατερός ~ καρτερός show a considerable overlap in terms of the nouns which they modify.⁵³³ Moreover, with one single exception, σφοδρός and σφόδρα are completely absent from Homer.⁵³⁴ In other words, Class. σφοδρός and Epic κρατερός ~ καρτερός are in a complementary distribution: both adjectives replace the original form κρατύς. Among Classical authors, the same complementary distribution exists between the adverbs σφόδρα and κάρτα. Aristophanes and Thucydides only use σφόδρα, whereas the tragedians and Herodotus regularly use κάρτα.⁵³⁵ This means that the Proto-Ionic adverb κάρτα ‘very, heavily’ was retained in the Ionic of Herodotus and in older Attic, but ousted in spoken Classical Attic by σφόδρα.

In Eastern Ionic, κρατύς *‘vehement, fierce’ may have been absorbed by καρτερός, as appears from the testimony of Herodotus.⁵³⁶ But Eastern Ionic does preserve the adverb κάρτα, which appears not only in Herodotus but also in Hipponax, a poet well-known for his use of words from lower (non-poetic) registers. The relationship between σφοδρός and καρτερός can therefore be summarized as follows:

Variety of Greek	Adj. ‘violent, vehement’	Adv. ‘vehemently, heavily’
Proto-Ionic	κρατύς	κάρτα
Homer	κρατερός ~ καρτερός	κρατερῶς, σφεδανός
Herodotus	καρτερός (κρατερός in oracles)	κάρτα
Attic prose	σφοδρός	σφόδρα
Tragedians	καρτερός (κρατερός in lyrical parts)	κάρτα

Table 5.5: Adjective versus adverb ‘vehement(ly)’ in different varieties of Ionic-Attic

In view of the semantic difference to be reconstructed for κρατύς as opposed to καρτερός, we are not dealing with mere morphological variants. Since the root forms an extensive Caland system in Ionic-Attic, the secondary creation of a *u*-stem adjective κρατύς would not be difficult to account for. The suffix -ερός of καρτερός, on the other hand, is much harder to explain. I therefore propose that **kṛteró-* ‘impetuous, violent, fierce’ is the original, Proto-

⁵³³ The adj. σφοδρός basically means ‘vehement, violent, excessive’, e.g. σφοδρὸς πόνος ‘excessive trouble’. Like Epic κρατερός, σφοδρός qualifies violent words and vehement pains. For τὸ σφοδρὸν ‘vehemence, excess’ (Pl.), compare τὸ καρτερόν ‘id.’ (trag.). Further, σφοδρός means ‘violent, impetuous’, of men and their behavior, e.g. νέος καὶ σφοδρός (Pl.), also ‘active, zealous’ (X. Cyr. 2.1.31), ‘strong, robust’ (X. Oec. 5.5).

⁵³⁴ The only Homeric attestation of σφοδρός is the adverbial form σφοδρῶς (*Od.* 12.124, on which see section 5.2.6). The Homeric form corresponding to Class. σφόδρα may well be σφεδανόν ‘violently, furiously’ (only three times in the *Iliad*), which probably derives from the same root. It is interesting that σφεδανόν and λύσσα ... κρατερή, qualifying Achilles as he is routing the Trojans, are found side-by-side in *Il.* 21.542. Unfortunately, the etymology and morphological makeup of σφοδρός and σφεδανός are unclear: the *o*-grade root vowel is strange in a *ro*-adjective, the origin of the suffix -ανός is unclear, and the root σφεδ- has no outer-Greek connections.

⁵³⁵ The adverb σφόδρα occurs only 2x in Sophocles, 1x in Herodotus, and σφοδρῶς only 1x in Euripides. Aeschylus has no instances of σφόδρα or σφοδρῶς, but one instance of the factitive verb σφοδρύνω. The figures for κάρτα are: Hdt. 93x, A. 34x, S. 18x, E. 16x. The diminishing relative frequency of κάρτα in the tragedians suggests that κάρτα was present in older Attic, and preserved in poetry as an archaism. This seems to be confirmed by the only attestation of κάρτα in Plato (*Tim.* 25d). The passage contains the story about Atlantis, which according to Plato is due to the elder Critias, who supposedly heard it from Solon (ὑπὸ τοῦ παλαιοῦ Κριτίου κατ’ ἀκοὴν τὴν Σόλωνος), who in turn was told it by an Egyptian priest.

⁵³⁶ This appears from cases like ὄνυχας καρτεροῦς ‘fierce claws’ (of the crocodile, Hdt. 2.68), μάχη (ναυμαχίη, προσβολή) καρτερή ‘fierce battle (attack)’ (Hdt. 1.76, 2.63, 3.11, 4.200, 6.101, 8.12), and ὑπνωμένου καρτερῶς τοῦ μάγου ‘while the Magus was in deep sleep’ (Hdt. 3.69). It is hard to exclude, however, that καρτερός in this sense is a Homerism in Herodotus; see below for a different analysis.

Greek form of the adjective.⁵³⁷ Early on, possibly already in Proto-Greek, it underwent a semantic development to ‘persevering, steadfast, enduring’, then to ‘lasting, firm’. Thereby, **kṛteró-* was dissociated from forms like **krétos* ‘fierceness, might, violence’, **kṛta* ‘vehemently’, and possibly from the then-existing verbal root. A new ablauting *u*-stem adjective **krét-u-*, **kṛt-éw-* ‘fierce, violent’, corresponding to the neuter abstract **krétos*, was then created, possibly directly based on the Proto-Greek reflex of the PIE verbal root **kṛeth₁-* (see section 5.3). As a productive derivation, the precursor of κρατύς preserved the older root meaning, while καρτερός ‘steadfast, enduring’ had become derivationally isolated and further developed its meaning to ‘lasting’ and ‘solid, firm’.⁵³⁸

Our questions regarding the problematic relationship between καρτερός and κρατύς can be answered as follows. Early on, the pre-form **kṛteró-* had become isolated from other Caland formations by a semantic development to ‘steadfast, enduring, firm’. After that, a new positive κρατύς ‘impetuous, fierce’ was productively created beside the other forms. In Ionic-Attic, κρατύς was eventually eliminated, but only at a post-Proto-Ionic stage: it was replaced by σφοδρός in Attic, and absorbed by καρτερός in Herodotus. In Epic Greek, however, it was retained directly in the formula $|_H$ κρατύς Ἀργεῖφόντης, and indirectly in κρατερός in its meaning ‘impetuous, fierce’.⁵³⁹

5.2.10 The reconstruction of κραταιός and κραται-

It is generally assumed that κραταιός, the first member κραται-, and κραταιῖς (PN Κράταιῖς) had pre-forms starting with **kṛt-*. Although there is no reason to assume that -ρα- replaced an older full grade in these forms, their morphological analysis (especially the origin of -αι-) remains an object of debate to this date. In the present section, I will review previous attempts to reconstruct κραταιός and κραται-, and offer a new proposal for both forms; κραταιῖς and Κράταιῖς are discussed in the next section. Anticipating the conclusions to be reached in chapter 6, there is one strong indicator for the former presence of **r*: of all lexemes containing the root κρατ-, the forms κραταιός, κραται-, and κραταιῖς are the only ones to undergo *muta cum liquida* scansion.⁵⁴⁰ In chapter 6, I will argue that the outcome -ρα- in such forms is the regular reflex of **r* in Epic Greek.

⁵³⁷ As I will argue in section 5.3, **kṛteró-* ‘impetuous, violent’ can be etymologically equated with Ved. *śithirá-* ‘loose’ < PIE **kṛth₁-ró-*.

⁵³⁸ As we have seen in section 5.2.1, such a semantic development also seems to be presupposed by the diverging semantics of the Cretan forms καρτερος ‘firm’ and καρτος ‘violence’.

⁵³⁹ Given the semantic difference between **krétu-* ~ **kṛtéw-* and **kṛteró-* reconstructed here for Proto-Greek, it remains to explain how κρατύς could be absorbed by κρατερός in Epic Greek. Could this be due to the same development reflected in the Ionic of Herodotus, where καρτερός retains the same wide gamma of meanings? This is not the only option: as so often, Herodotus could be Homerizing, and it remains unclear why Ionic would have given up the otherwise clear formal and semantic distinction between κρατύς and καρτερός. I am therefore inclined to consider an inner-Epic mechanism for the conflation of κρατύς and κρατερός ~ καρτερός. The form κρατύς is attested only in the formula $|_H$ κρατύς Ἀργεῖφόντης. When κρατύς ‘fierce’ had to qualify other names like Diomedes in verse-final position, its use was inhibited by Hermann’s Bridge. In fact, κρατερός occurs after $|_H$ in almost 60% of its instances. It is conceivable that there was an old distribution between κρατύς and κρατερός in pre-Homeric Epic: $|_H$ κρατύς $|_B$ V- [PN] ## versus $|_H$ κρατερός C- [PN] ##. After κρατύς had gone out of use in spoken Ionic-Attic, its fate in Epic Greek was sealed by the much greater metrical utility of κρατερός, and it survived only in one single relic formula. It might then be speculated that formulae like $|_H$ κρατερός Διομήδης and $|_H$ κρατερῇ ὕσμινῃ date back to a stage when **kṛteró-* still had the meaning ‘impetuous, fierce, violent’, and that **kṛteró-* underwent the development of Epic **r*, to be discussed in the next chapter. If the semantic development of **kṛteró-* to ‘steadfast’ was indeed Proto-Greek, this would suggest a very high antiquity for the epic hexameter. Needless to say, this scenario remains uncertain, but it seems clear that κρατύς and κρατερός were somehow conflated in Epic Greek.

⁵⁴⁰ The *muta cum liquida* licence is never used in other forms with κρατ- (κρατύς, κράτος, κρατερός, κρατέω). Moreover, forms like κράτιστος, κρατύνω and ἐκράτησα were apparently avoided in Homeric Greek. The only

As we have seen, κραταῖός is semantically equivalent to κρατερός ~ καρτερός.⁵⁴¹ Its reconstruction has been much debated, but a convincing solution has not yet been provided. It is often assumed that the masculine κραταῖός is a back-formation from the feminine, attested in the Homeric formula Μοῖρα κραταιή.⁵⁴² Authors like Risch, de Lamberterie, and Meissner suppose that κραταιή continues an archaic motional form **k_ṛth₂uih₂* of the *u*-stem adjective κρατύς, where the second *-a-* would be the outcome of a vocalized **h₂*.⁵⁴³ This explanation is inspired by Πλάταια (Πλαταιαί), which is analyzed as the direct outcome of a motional feminine **pl_hth₂u-ih₂* ‘wide’ (cf. πλατύς).⁵⁴⁴ The reconstruction as a relic *u*-stem form is corroborated by the pattern of accentuation (singular Πλάταια, plural Πλαταιαί), which recurs in a few other archaic motional feminines of Greek *u*-stem adjectives (see section 4.1). Furthermore, the root-final **-h₂-* can be reconstructed on the basis of the Indo-Iranian cognates and of the Greek substantive πλαταμών ‘flat surface’.

When this explanation is extended to κραταῖός, however, severe problems arise. First of all, there is no independent evidence that the root underlying κρατ- ended in **-h₂*. Meissner accepts the etymological connection with Vedic *krátu-* and Avestan *xratu-*, but these forms exclude a root-final laryngeal; he therefore assumes that a suffix **-h₂u-* (replacing older **-u-*) became productive in *u*-stem adjectives in Proto-Greek, which is clearly an *ad hoc* explanation.⁵⁴⁵ De Lamberterie (1990: 352-3) derives κρατύς from the root **kert-* ‘to cut’, and is forced to assume a contamination between **kert-* and **kerH-* ‘to cut’, which would have given rise to **kerth₂-*. Both ideas are designed specifically in order to explain κραταῖός, and neither of them is supported by further evidence.

A second problem concerns the inner-Greek developments that are assumed to lead to κραταῖός. The expected feminine of a *u*-stem adjective would be **κραταια* (with short *-ā*), but

exception is *Il.* 20.121, where κράτος stands after the trochaic caesura. For such incidental cases of *muta cum liquida* scansion, see section 6.4.

⁵⁴¹ According to de Lamberterie (1990: 337), κραταῖός “présente la même gamme d’emplois que la formation en *-ερός*, et cela est vrai aussi des composés en *κραται-*, *καρται-*.” To his representative list of examples I would add that the equivalence of κραταῖός and κρατερός is most clearly proven by *Od.* 18.383, where κραταῖός occurs in a speech of Odysseus (18.365-86). The “beggar” Odysseus addresses the suitor Eurymachos 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. This means that κραταῖός, in the verse καὶ πού τις δοκέεις μέγας ἔμμεναι ἦδὲ κραταῖός (18.383) “you think you are some big and tough guy”, refers to the stamina or endurance which the suitor Eurymachos, a daily consumer of banquets, is lacking. This shows that κραταῖός does not only appear in the sense ‘impetuous, fierce’ (likely in its other Homeric instances, and probably the more original meaning), but that it also means ‘enduring’ on at least one occasion.

⁵⁴² Risch (1974: 74), Nagy (1999: 85-89 and 349-54), de Lamberterie (1990: 337ff.), Meissner (2006: 62f.). In Risch’s words, “danach [i.e. after Πλάταια] wohl zu κρατύς : μοῖρα κραταιή (statt **-αιᾶ*), Versende 9 mal *Il.* (nachträglich ist κραταῖός gebildet worden).”

⁵⁴³ Most scholars reconstruct PIE **k_ṛth₂u-ih₂*, but departing from such a pre-form, I would expect the **u* to surface in Greek as a syllabic segment. For this reason, I prefer to reconstruct the Greek form as **k_ṛth₂-eu-ih₂*: see the next note.

⁵⁴⁴ This toponym may originally have denoted a wide or flat area (e.g. **πλάταια χώρα*). Of course, the normal feminine πλατεῖα to πλατύς is analogical. As explained in section 4.1.1, the reconstruction **pl_hth₂-u-ih₂* required by Ved. *pr_hthiv-* would not yield Greek Πλάταια, because one expects the **u* to surface as a syllabic segment in the Greek outcome. This means that the Greek and Indo-Iranian forms cannot be derived directly from one and the same pre-form. In my view, the full grade suffix *-ew-* presupposed by the Greek feminine (**pl_hth₂-eu-ih₂*) was taken from the weak stem of the masculine. Risch’s (1974: 74) suggestive reference to Pausanias, according to whom Πλάταια used to harbor a cult of the goddess Earth, does not necessarily imply a direct formal equation between Πλάταια and Vedic *pr_hthiv-* ‘Earth’.

⁵⁴⁵ Meissner uses this reconstruction to explain the compounding element κραται- from κραταιο-, which would have been altered under pressure of other compounds with a “linking element *-ai-* (of various origins) which is favoured over *-o-* wherever possible and (...) thus found not only in κλυται-, πυλαι-, κελαι- for κελαινο-, etc. [in Κλυταιμνήστρη, Πυλαιμένης, κελαινεφής, LvB] but even in comparative forms like γεραίτερος alongside γεραιός.”

this form is unattested, and κραταιή is found in the archaic Homeric formula Μοῖρα κραταιή.⁵⁴⁶ As explained in section 4.1, in a pre-form Ns. *κράταια I expect the accent to be on the root, which makes the final accent of κραταιή problematic. Furthermore, there is no apparent motive for replacing an earlier *Μοῖρα κραταιά by Μοῖρα κραταιή. The creation of a secondary masculine κραταιός beside κραταιή is not without problems either. De Lamberterie (1990: 339) proposed to call κραταιός a “masculinatif”, but most of the parallels cited for this process are from post-Classical Greek, and the similarities with κραταιός are only partial.⁵⁴⁷

In view of these objections, the proposal to derive κραταιός from the feminine of a *u*-stem adjective remains doubtful.⁵⁴⁸ Before further analyzing κραταιός, let us now consider the first member κραται-, which requires an explanation too. A number of details concerning its reconstruction remain unclear:

(1) What is the origin of -αι-? Is there a derivational relation between κραται- and κραταιός?

(2) A first member κραται- was metrically awkward, because it entailed the use of *muta cum liquida* scansion. Why was it created at all?

(3) What is the relation between names with Κραται- and those with Καρτι-, Κρατι-?

Let us first consider the existing opinions on the origin of -αι- in κραται-. Meissner argues that κραται- is a remodeling of κραταιο-, citing γεραιός ‘old’ beside the comparative γεραίτερος as a parallel.⁵⁴⁹ This is unlikely: it remains unclear why the thematic vowel would be dropped in the first member of a compound. Moreover, the assumed influence of γεραιός on κραταιός lacks a semantic motivation. Finally, γεραίτερος is not a compound but a comparative, and the relation between γεραιός and γεραίτερος is unclear itself.

For κραται-, the reconstruction of a pre-form **krth₂i-* does not really help: between two consonants, PIE **-h₂i-* is expected to yield -ι- rather than -αι- (cf. Nagy 1999: 86f. n. 5). Nagy assumes that κραται- arose within Greek as a cross of the adverb **krt-a* with the expected Caland allomorph **krt-i-*. 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 Ἀλκάθοος (*Il.* 12.93) and Ἀλκαμένης (Bechtel 1917: 35) beside ἀλκί-φρων. Indeed, a first member Κρατι- is also

⁵⁴⁶ De Lamberterie (1990: 340) proposed to recognize a trace of *κράταια in κραταιίς (*Od.* 11.597), which he derives from a syntagm *κράταια ρίς ‘strong force’ by haplogy. But this scenario cannot be further substantiated; for a different analysis of κραταιίς, see below.

⁵⁴⁷ A masculine form (Ϝ)ιδυῖος, which refers to an overseer of youngsters, occurs in late Laconian and Messenian inscriptions from the 2nd and 1st c. BC. The same form recurs in glosses ascribing the form to Attic in the meaning ‘witness’ or ‘jury in a homicide case’. De Lamberterie proposes that (Ϝ)ιδυῖος was based on the feminine pf. ptc. ιδυῖα, which seems likely. It deserves attention, however, that (Ϝ)ιδυῖος is a substantivization, whereas κραταιός is a full-fledged adjective. None of the other examples of “masculinatives” furnishes a clear parallel for κραταιός: beside πέπων (fem. πέπειρα), a new masculine form πέπειρος is found first in the Hippocratic corpus; beside Homeric θαμέες (fem. θαμειαί), the thematic comparative form θαμειότερος first occurs in Nicander. Finally, beside the inherited adjective στειρά ‘barren, sterile’, typically used with female referents, the secondary masculine στειρός is first attested in Euripides. Among the alleged examples, the only clear Homeric case is ἐταῖρος ‘companion’ beside ἔταρος. But here, it is hard to exclude influence of the feminine ἐταίρη on an already existing masculine form ἔταρος.

⁵⁴⁸ We have already seen that the *u*-stem form κρατύς may have been productively formed within Greek, induced by the semantic differentiation between the precursors of καρτερός and κράτος. Again, this casts doubts on the idea that κρατύς and its supposed feminine *κράταια existed when the root-final **-h₂-* was still intact. I will argue below (section 5.3) that the inherited form of the adjective καρτερός ~ καρτερός corresponds directly to Vedic *śithirá-* ‘loose’. This identification does point to a root-final laryngeal, then, but the root must be set up as **krēth₁-* in view of the -ε- in Ion.-Att. καρτερός. For the sake of the argument, one could be tempted to assume that the root was **krēth₂-*, and that *καρταρός was reshaped to καρτερός within Greek, for instance after ἱερός, which was originally close in meaning (‘active, agile’). However, this would not solve the other problems with previous explanations of κραταιός. It does not explain either why Cretan has καρτερος: corresponding to Hom. ἱερός, West Greek dialects have ἱαρός.

⁵⁴⁹ Meissner (2006); see also Meissner (1998: 244-46).

found, but only in personal names (Nagy 1999: 86). This scenario receives some support from the fact that an adverb **kṛta* is attested in Classical Greek as κάρτα. One would have to assume that **kṛta-*, of adverbial origin, could be used as the first member of a compound, and then extended with the Caland suffix *-i-* or contaminated with **kṛti-*. But unfortunately, there are no clear parallels to support this scenario.

A model for the creation of **kṛtai-* is difficult to indicate. But if we assume that this form is old, a motivation for its retention is available within Epic Greek. In compounds, the first member κραται- functions as an allomorph of κρατερός. This is clearly illustrated by personal names with Κραται- which correspond to Epic syntagms with κρατερός, cf. de Lamberterie (1990: 337):

Κραταιμένης (Th., inscr.)⁵⁵⁰ ~ Hom. κρατερόν μένος ‘impetuous fury’

Κραταίβιος (inscr. Delos)⁵⁵¹ ~ Hom. κρατερῆφι βῆῃφι ‘with vigorous force’.

Another piece of evidence is καρταίποδ-, attested both in Pindar (qualifies a bull in *Ol.* 13.81) and in Cretan inscriptions in the meaning ‘cattle’. Furthermore, κραταίποδες ‘with strong feet’, epithet of ἡμίονοι ‘mules’, is attested in the *Lives* of Homer.⁵⁵² This appellative compound must be compared primarily with the Homeric epithet κρατερῶνυξ, which (with one exception) qualifies horses and mules that are used as draught animals.⁵⁵³ In other words, κραταίποδες is the equivalent of a phrase “whose πόδες are κρατεροί”, just like κρατερῶνυξ means “whose ὄνυχες are κρατεροί”.

Given that κραται- functions as an allomorph of κρατερο- in compounds, we have to examine their distribution. In my view, the underlying principle is metrical and must be sought in Epic Greek. The only two Homeric compounds with a first member κραται- are κραταιγύαλοι ‘with solid breastplates’ (*Il.* 19.361, qualifies θώρηκες) and κραταίπεδον (*Od.* 23.46, qualifies οὔδας ‘ground’). In these cases, the second member starts with a single consonant and has a short first syllable. The same applies to the post-Homeric personal names Κραταιμένης and Κραταίβιος, which are clearly of Epic origin, and to κραταίποδες (cf. Cretan and Pindaric καρταίποδ-). In this context, both κρατερο- and καρτερο- were excluded for metrical reasons in Epic Greek, because they would have yielded a sequence of three or more short syllables. In front of a second member starting with two consonants or with a vowel-initial heavy syllable, we find κρατερο-: cf. κρατερόφρων, κρατερῶνυξ. When the first syllable of the second member was heavy and started with a single consonant, καρτερο- was used: cf. καρτερόθυμος). Thus, the distribution is as follows:

First member:	Second member starts with:
κατερό-(θυμός)	CṼ-, CVCC- ⁵⁵⁴
κατερό-(φρων)	CC-
κατερ-(ῶνυξ)	Ṽ-, VCC
κραταί-(πεδον)	CṼ(C)Ṽ-

⁵⁵⁰ The oldest attestation is the name of an Achaean victor in Olympia (*SEG* 22.345, appr. 600 BC). Further attested (mostly late) in Κραταιμένου *SEG* 19.108 I.117 (Attica, cf. *SEG* 23.124.2), Κραταιμένης *IG* V(1) 127.4 and 211 II.34 (Laconian), also *IG* V(2) 419.8 (Arcadian, 2nd c.), Εὐδημιος Κραταιμένου Ἐρετριεύς *IG* XII(9) 91.4 (Euboea). Cf. also Καρταίμενη[ς], *IG* XII (Supp.) 312 III.31 (Tenos, Ionic Cyclades, 2nd c.).

⁵⁵¹ 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).

⁵⁵² *Vit.* 19, 4 (ed. Wilamowitz).

⁵⁵³ The exception is λύκοι κρατερόνυχες ἡδὲ λέοντες (*Od.* 10.218), ‘with violent claws’ (vel sim.).

⁵⁵⁴ In κραταιρίνοιο ‘hard-shelled’ (oracle in Hdt. 1.47, hexameter), the allomorph κραται- is used in front of a heavy syllable starting with a consonant, but here, the underlying reason is the use of the genitive in -οιο.

The compounds with κραται- were preserved because they could not be replaced by compounds with *krtero- within Epic Greek.⁵⁵⁵ This makes it likely that κραται- represents a relic “Caland allomorph” of *krtero- as a first member.

The question then arises how the compounds with κραται- relate to personal names with Καρτι- and Κρατι-, which contain the expected outcome of a pre-form *krti-. As evidence for such names, Bechtel (1917: 256) mentions Κρατ-ερμος, Κρατ-ιπιδας, Κρατι-δημος and Καρτι-δαμας, Καρτι-νικος, Καρτι-σθενης. Meissner (1998: 244-45, cf. also Frisk s.v. κράτος) remarks that the attestations are not very early.⁵⁵⁶ For this reason, he claims that these names could be innovations of the classical period, when first members with -ι- enjoyed productivity, and remarks (1998: 245): “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.” However, given that κραται- occurs only twice, the absence of καρτι- ~ κρατι- in Homer is not necessarily remarkable in the first place. Furthermore, the above distribution suggests that κραται- was preserved in Epic Greek merely because it could *not* be replaced by κρατερο-. Since forms with *krti- may underlie the forms with *krtero-, Meissner’s argument is invalid. Since κρατερο- ~ καρτερο- is unattested as the first member of PNs in Ionic-Attic (see section 5.2.2), it seems much more likely that the personal names with Κρατι- and Καρτι- directly continue the inherited form *krti-, and that *krti- was replaced by *krtero- only in appellatives.⁵⁵⁷

We now arrive at the following scenario. In Epic Greek, the use of the inherited allomorph *krti- was problematic in front of a single consonant followed by a short syllable.⁵⁵⁸ This may have initially been solved by a metrical lengthening to *krtī-, e.g. *krti-pedo- >> *krtī-pedo-. Subsequently, the remaining cases of *krti- were replaced by *krtero- whenever this was possible (or by κρατερο- ~ καρτερο-, as soon as this option became available). Finally, the isolated first member *krtī- was replaced by *krtai- (which eventually developed to Hom. κραται-) under the influence of κραταιός. As we will see in chapter 6, this scenario accounts for the synchronically irregular *muta cum liquida* scansion of κραται-: the metrical lengthening occurred when *r was still in place.

Let us again return to the reconstruction of κραταιός. In view of its oxytone accent, a derivation with the unaccented suffix -i(i)o- can be excluded. As possible parallel formations, three other adjectives are of special interest: παλαιός ‘of the past’, γεραιός ‘old’, and δηναιός ‘long-lived’.⁵⁵⁹ Of these, δηναιός occupies a special position, because it probably derives

⁵⁵⁵ As a consequence, the compound κραταιίλεως ‘consisting of hard rock’ (only attested in the tragedians, containing λίθας ‘stone’ as its second member) must be considered a recent formation (note the Quantitative Metathesis). In Homer, one would expect to find a *καρτερόλαος.

⁵⁵⁶ According to Meissner, one example possibly dates from the fifth century, and the rest is from the fourth century or younger.

⁵⁵⁷ In Epic Greek, this replacement occurred before the vocalization of the syllabic liquids (which would have altered the metrical structure of *krti-).

⁵⁵⁸ This is more or less in line with de Lamberterie (1990: 343): “Dans les composés, le système de Caland fait attendre un premier membre καρτι-, κρατι-, attesté effectivement dans l’onomastique; une fois constitué l’adjectif κραταιός (...), on conçoit qu’il ait pu fournir aux aèdes un modèle pour faire entrer dans l’hexamètre des formes amétriques comme *κρατίπεδος ou *κρατιγύαλος.” As explained in the text, I would prefer to assume metrical lengthening of *-i- at a stage before the vocalization of the syllabic liquid. In his immediately following remark, however, de Lamberterie seems to express his doubts about this explanation: “Il reste que l’existence de καρταῖπος en Crète interdit de voir dans les composés and κραται- une création littéraire artificielle; ils ont bel et bien une réalité linguistique.” If I understand this correctly, the Cretan form καρταιποδ- would invalidate, in his view, an exclusively inner-Epic explanation of the compounds in κραται-. However, the Cretan word for ‘cattle’ must be of poetic origin in any case: it was originally an epithet which replaced or supplemented an older word for ‘cattle’, such as τετράποδ-.

⁵⁵⁹ Other words which contain final -αίος- are: ἀραιός ‘thin, slender’ (no etymology), βαιός ‘small, slight’ (no etymology), γηραιός (probably a younger variant of γεραιός), ἀλαιός (only attested in Hsch., variant of ἡλεός ‘crazed’), λαιός ‘left’ = Lat. *laevus* etc. (an old formation PIE *leh₂i-uo-, cf. δεξιός ‘on the right’), σκαιός ‘left,

from a compound **dwān-aiw-ó-* ‘(one) having a long life-span’.⁵⁶⁰ On the other hand, the adjective *παλαιός* is already attested in Myc. *pa-ra-jo*, which excludes a compound with **-aiw-*.⁵⁶¹ It would not be illogical to derive *παλαιός* from the adverb *πάλαι* ‘in times before, for some time now’, which also occurs as the first member of compounds (e.g. *παλαιγενής* ‘born long ago’, *παλαίφατος* ‘said/hit some time ago’). Later, *παλαιός* may have induced the creation of *γεραιός*.⁵⁶²

The formation of *κραταιός* may theoretically be explained like that of *παλαιός*, or as a compound, like *δηναιός*. Nagy (1999: 353) tentatively suggested that *κραταιός* may be analogical after *παλαιός* (which he considers to be a “thematization” of *πάλαι*).⁵⁶³ A similar scenario had already been proposed in *DELG* (s.v. *κράτος*). But as Nagy himself admits, it is problematic that *κραται-* (unlike *πάλαι*) is not found as a simplex. In order to avoid this problem, one could think of a proportion between *κραται-* and *παλαι-* in compounds (cf. Frisk, s.v. *κράτος*). In other words, after *παλαιός* “(one) of a while ago” had been formed by adding hypostatic *-ó-* to the adverb *πάλαι*, it could be supposed that *κραταιός* was formed by analogy. It is problematic, however, that *κραται-* itself remains in need of an explanation – that is, unless one assumes that it was influenced by an already existing *κραταιός*, as suggested above.

I therefore propose to derive *κραταιός* from a compound PGr. **krt-aiw-ó-* ‘having impetuous vital force’, where **krt-* is the prevocalic variant of the Caland allomorph **krti-*, and **-aiw-* continues PIE **h₂eiu-*. Note that in Homeric Greek, *αἰών* does not only mean ‘life, life span’: it is also used as an equivalent of *μένος* in the sense ‘vital force’ (cf. *LfgreE* s.v. *αἰών*). The required meaning of **h₂eiu-* is probably also attested in the Vedic avatar *áyu(s)-* ‘life, lifetime, vital force’. This proposal is strengthened by the personal names *Κραταιμένης* and *Κραταίβιος*, which presuppose underlying syntagms *κρατερὸν μένος* and *κρατερὴ βῆη* with the same meaning ‘impetuous force’. In other words, **krti-* + **aiw-* is both formally and

western’ = Lat. *scaevus* (likewise old, PIE **skeh₂i-uo-*). It could also be interesting to compare the ethnicon *Ἀχαιοί*, on which see Nagy (1999: 349-54). The common classical form *ἀρχαῖος* ‘ancient’ does not occur in early epic, except in Hes. *fr.* 322. As the accent shows, this was formed in a productive way to the noun *ἀρχή* ‘beginning’; the suffix goes back to PGr. **-i(i)ó-*.

⁵⁶⁰ As is recognized by *DELG* (s.v. *δήν*), there is no reason to doubt the reconstruction of *δηναιός* as **dwān-aiw-ó-*, because the meaning ‘long-lived’ is consistent in both Homer and Aeschylus. Frisk (s.v. *δήν*) has problems with this etymology, presumably because of the unexpected adverbial form of the first member. He thinks that *δηναιός* could be an artificial formation influenced by *παλαιός* and *ἀρχαῖος* (“vielleicht sogar nach ihrem Vorbild direkt aus *δήν* erweitert sein”). However, *ἀρχαῖος* cannot be compared in view of its different accent. Even if the use of the adverb *δήν* in derivations is judged to be problematic, the same objection applies to Frisk’s own proposal. Is it possible that **dwān-* was introduced because the expected outcome **duwi-* of a PIE **duh₂-i-* had become morphologically opaque? Note, in this connection, that Homer does use *δήν* predicatively (e.g. οὐδὲ γὰρ ... *δήν ἦν* ‘for he [Lycurgus] did not live long’, *Il.* 6.130-1).

⁵⁶¹ As Chadwick has shown (1976), *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 tablets, *pa-ra-jo* qualifies wine and is used in opposition to *ne-wo* ‘young’.

⁵⁶² Since *παλαιός* is found in Mycenaean, this would be the most obvious scenario; but nothing excludes that *γεραιός* (30x 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*. As another possibility, one might consider a compound **ger-aiw-ó-* ‘(one) of an old lifetime / generation’. Karl Praust draws my attention to the Vedic compound *jarāyu-* ‘cast-off snake skin; outer skin of the embryo’ (as well as an unclear meaning in RV 10.106.6), which looks similar to the Greek adjective.

⁵⁶³ I disagree with Nagy’s proposal to reconstruct *κραταιός* as a compound **krtai-wi(H)-i(e)h₂* ‘having strong force’ (Gr. *ἴς*, Lat. *vis*). The pre-form would first have lost the laryngeal, and then removed its suffixal ablaut to yield **kratai-wyā*. This would, finally, have given rise to a secondary masculine form. Apart from the fact that the assumed laryngeal loss in a compound is not very pretty, the objections to the other two points are the same as for Risch’s proposal discussed above.

semantically parallel to **krti-* + **menes-* and **krti-* + **g^wiā-*.⁵⁶⁴ An objection to such an original compound is that κραταιός is not an epicene adjective (its feminine κραταιή is formed with **-ā-*). It would not be far-fetched, however, to assume that the feminine of κραταιός was influenced by that of adjectives like παλαιός, γεραιός, λαιός, σκαιός once it was no longer analyzed as a compound.

5.2.11 κραταιῖς, Κράταιῖς

The enigmatic form κραταιῖς (PN Κράταιῖς) occurs twice in Homer. The first time is in the story about Sisyphus in the *Nekuia*:

... ὁ μὲν σκηριπτόμενος χερσὶν τε ποσὶν τε
 λαῶν ἄνω ὄθεσκε ποτὶ λόφον· ἄλλ' ὅτε μέλλοι
 ἄκρον ὑπερβαλέειν, τότε ἀποστρέψασκε κραταιῖς·
 αὐτὶς ἔπειτα πέδονδε κυλίνδετο λαῶς ἀναιδής. (*Od.* 11.595-98)

“... 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 ‘heavy weight’ (e.g. “das Übergewicht, seine Wucht”, Ameis-Hentze ad loc.).⁵⁶⁵ Editors like von der Mühl and van Thiel print Κραταιῖς, but I fail to see how a personal name could have oxytone accentuation.⁵⁶⁶ A personal name Κράταιῖς is ascertained in the second attestation, where Kirke warns Odysseus about the monstrous Skylla:

οὐδέ τις ἔστ' ἀλκή· φυγέειν κάρτιστον ἀπ' αὐτῆς.
 ἦν γὰρ δηθύνησθα κορυσσόμενος παρὰ πέτρῃ,
 δεῖδω μή σ' ἐξαὐτὶς ἐφορμηθεῖσα κίχησι
 τόσσησιν κεφαλῇσι, τόσους δ' ἐκ φῶτας ἔληται.
 ἀλλὰ μάλα σφοδρῶς ἐλάαν, βωστρεῖν δὲ Κράταιῖν,
 μητέρα τῆς Σκύλλης, ἣ μιν τέκε πῆμα βροτοῖσιν·
 ἣ μιν ἔπειτ' ἀποπαύσει ἐς ὕστερον ὀρμηθῆναι. (*Od.* 12.120-26)

“There is no defence; flee from her as fast as you can.”⁵⁶⁷ For if you tarry arming yourself by the cliff, I fear that she may jump up again, and attack you with as many heads and seize as many men as before. Therefore you should row with all your might, and call upon Krataiis, the mother of that Skylla, who bore her to be a bane to mortals. She will then keep her from leaping forth again.”

⁵⁶⁴ A second member **-aiw-* extended with hypostatic *-ó-* could perhaps explain the etymology of the name Ἀχαιοί. In the Mycenaean tablets, the name of the region Achaea is attested as an allative *a-ka-wi-ja-de* / *Ak^haiwian-de* ‘to Achaea’. This means that a PGr. reconstruction **ak^h-aiw-ói*, denoting the men (Ἀχαιοί) “who have a painful life”, is formally possible. Although the possibility to etymologize such names may be doubted, the semantics of such a compound would fit the thematics of the Homeric epics uncovered by Nagy (1999). Himself, Nagy is clearly struggling when he tries to derive Ἀχαιοί from **ak^hai-wi-yā*, with the first member from the root of ἄχος ‘pain’, ἄχυνμαι ‘to suffer’, and the second member **wiH-* ‘force’. For the formal problems with Nagy’s analysis, see the previous footnote.

⁵⁶⁵ In the Anhang, Ameis-Hentze add: “die höhere Macht, die jedesmal die Kraftanstrengung des Sisyphos auf wunderbare Weise vereitelte, also die ‘Wucht’ in sinnlicher Belebtheit gedacht.”

⁵⁶⁶ Cf. the comment by Heubeck-(Hoekstra) 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.” For the name of such a figure, a possessive compound would be in order (see below on the etymology).

⁵⁶⁷ For this translation, see the discussion of the superlative κάρτιστον above (section 5.2.6).

Aristarchus held the opinion that lines 124-26 in this passage were later additions. But the fact that line 124 contains the hapax βωστρεῖν and the quasi-hapax Κράταιϊν strongly advises against athetizing it.⁵⁶⁸ Indeed, the idea has been mostly abandoned in more recent scholarship (see *Comm. Heubeck* ad loc.), but Merkelbach (1951) still argued that lines 125-6 (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 ‘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 Skylla’s mother to restrain her daughter?⁵⁶⁹ However this may be, it seems best to retain line 124 as authentic Homeric.

The correct morphological analysis of κραταιῖς and Κράταιϊς has also yielded problems from antiquity onwards; see de Lamberterie (1990: 340-43) for a clear summary of the issues. Before proposing my solution (5), I will first discuss the previous proposals (1 - 4).

(1) The oldest proposal goes back to Aristarchus, who analyzed κραταιῖς as an adverb in -ις. But this cannot be correct, because 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.

(2) Chantraine (*DELG*) tried to analyze κραταιῖς as an adjective: an anomalous feminine of κραταιός which allegedly qualifies λᾶας ‘stone’ in the next line. For the formation, he compared the Homeric feminine θοῦρις, belonging to θοῦρος ‘furious’. But as de Lamberterie remarks, λᾶας is always masculine in Homer.

(3) The idea of an irregular elision in an underlying κραταί᾽ ἱς cannot be maintained either, in view of the long -η in combination with the initial digamma of ἱς ‘force’. De Lamberterie’s proposal (l.c.) to reconstruct a syntagm *κραταιφὰ ρίς, that would have developed to κραταιῖς by haplology, remains hypothetical.

(4) Nagy (1999: 349f.) analyzed κραταιῖς as a possessive compound *κραται-ρις “whose force has κράτος”, which would make sense from a semantic point of view.⁵⁷⁰ On the formal side, however, the problems remain. If the second member were indeed ἱς ‘force’ < PIE *uiH-s (with long ī), this would contradict the proparoxytone accent of the name Κράταιϊς.⁵⁷¹ It would be unmotivated to assume a secondary shortening of the *ī.

(5) In view of the above problems, the analysis of κραταιῖς ~ Κράταιϊς as a feminine substantivization of the type νυκτερίς ‘bat’ (mentioned by Nagy 1999: 349) is worth consideration. As we have seen, the attestation of κραταιῖς suggests that it means something like ‘strong force, impetus’. Nagy objects that beside νυκτερίς and ἡμερίς ‘cultivated vine’, the corresponding adjectives (νύκτερος ‘nightly’ and ἡμερος ‘tame, cultivated’) retain their epicene inflection, where κραταιός is of three endings. But κραταιῖς functions as a substantive, and I fail to see why the possibility to derive a feminine substantivization in -ίδ- would be affected by the presence or absence of a separate motional feminine.⁵⁷² We may conclude that κραταιῖς, as a direct derivation from κραταιός, adds nothing new to the picture.

⁵⁶⁸ The formation of βωστρεῖν is unclear. It is conventionally translated as ‘to call to help’, and thought to be related to βοᾶω ‘to cry’ (*Lfgre* q.v.).

⁵⁶⁹ Within the new interpretation of φυγέειν κάρτιστον ‘flee as fast as you can’ (section 5.2.6), it would be attractive to view Κράταιϊς as a personified force which grants impetus to the boat, just like κραταιῖς in *Od.* 11.597 is a force which accelerates a stone. In that case, the interpretation of Κράταιϊς as Skylla’s mother in lines 125-6 could be due to a post-Homeric reinterpretation of the passage.

⁵⁷⁰ In a number of Homeric instances, ἱς refers to the impetus of natural forces (wind, river). In my view, a translation “whose force is κρατερός” would be preferable: as we have just seen, κραται- continues a relic allomorph of κρατερός.

⁵⁷¹ In fact, all analyses of the form as a compound (or syntagm) with ἱς ‘force’ suffer from the same problem.

⁵⁷² Moreover, if the analysis of κραταιός as an original compound is correct (see the previous section), this problem would disappear.

5.3 A new etymology for κρατερός

We have already discussed the previous etymological proposals for κρατερός and the problems involved (section 5.1). As a new etymology, I propose to directly equate Hom. κρατερός ‘impetuous, fierce’ with Ved. *śithirá-* ‘loose’, which belongs to a primary verbal root *śrathⁱ*- ‘to be loose’. This idea has several advantages:

(1) *śithirá-* and κρατερός can be derived from the exact same pre-form, PIE **k^rth₁-ró-*. Since the -ε- is not only found in the Ionic-Attic form, but also in Cretan and in the dialectal gloss κοπερά, we are dealing with a root ending in **-h₁-*. I accept the view that not only **h₂*, but also **h₁* regularly caused aspiration of a preceding stop in Indic.⁵⁷³ The Vedic outcome *śithirá-* is the result of a regular dissimilation of **ś^ṣthirá-* (see Lubotsky 1994: 96, with reference to Narten); in later, Classical Sanskrit, it occurs only in the form *śithila-* ‘loose, relaxed, slack’.

(2) Ved. *śithirá-* belongs to the primary verbal root *śrathⁱ*- ‘to be loose’, and the earlier existence of a primary verb in Greek makes it much easier to understand the large body of Caland formations.⁵⁷⁴ It is well-known that individual Caland forms could be analogically created in the more recent prehistory of Greek, as in ὀτραλέως (: ὀτρύνω) which was probably formed after θαρσαλέως : θαρσύνω. But it is unlikely that the entire Caland system of κρατερός, which is the largest of its kind in Greek, was based only on the adjective κρατός, as those who defend the connection with Ved. *krātu-* (section 5.1) would have it.⁵⁷⁵ If a verbal root also existed in Proto-Greek, the derivation of forms like **krētu-* / **k^rtéw-*, **krétos*, and **-kretes-* can be easily explained.

(3) Departing from an inherited adjective **k^rth₁-ró-*, we may explain not only the coexistence of two adjectives κρατερός and κρατός, but also the origin and spread of the Greek suffix -ερό-. Note that κρατερός ~ κρατός is by far the most frequent adjective in -ερό- in Homer. In section 5.3.2, I will show how -ερό- could acquire a certain productivity, and by which mechanisms it spread.

Obviously, the most important question is how the semantic side of the equation works. An extensive semantic analysis of the Vedic attestations is necessary, and I intend to elaborate this in a separate article in the near future. Presently, I will limit myself to an outline of the argument. The basic idea is that the original meaning of κρατερός in Proto-Greek was ‘impetuous’ (sections 5.1.3-4), and that this meaning developed from ‘unrestrained, unbridled, moving freely’. If Ved. *śrathⁱ*- ‘to loosen’ was originally an intransitive verb with the meaning ‘to be loose’, the apparent semantic gap with κρατερός can be bridged.

5.3.1 Vedic *śithirá-* ‘loose’, *śrath-* ‘to loosen’

Let us now first discuss the previous proposals for Vedic *śithirá-*. Peters (1993a) tried to revive Meillet’s connection between *śithirá-* and Greek καθαρός, but there are grave formal and semantic problems with this etymology, as we will see in section 9.4. We may therefore

⁵⁷³ For this point, see Lubotsky (2011: 115). The most important piece of evidence is Ved. *sphāyate* ‘to become fat’ < PIE **sph₁-oi-e/o-*, which belongs with Hitt. *išpāi* (3s. pres.) ‘eats to satiation’ < **sph₁-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-ⁱ*). The aspirate is also found in the old word for ‘foam, froth’, Skt. *phéna-* < PIE **(s)ph₁ói-mn-o-* (for this reconstruction, cf. Lat. *spūma*, OE *fām*, OCS. *pěna*, OPr. *spoayno*). Confirmation of this idea is furnished by the PIE adjective **piHuon-* ‘fat’, as reflected in Skt. *pīvan-*, Gr. πίων, where a laryngeal metathesis had regularly operated on the pre-PIE form with **ph₁iū-*; see Lubotsky, op. cit. 116 n. 23. The root also formed a *ro*-adjective **sph₁-ró-*, attested in Ved. *sphirá-* ‘fat’ and Lat. *prosperus* ‘prosperous’.

⁵⁷⁴ See the abundant evidence for derivation from intransitive verbs (stative-inchoatives) in Indo-Iranian and Greek collected by Rau (2009: 146-60), which proves that the Caland system was to a large extent deverbal not only in Greek, but already in the proto-language.

⁵⁷⁵ Strunk’s proposal (1975) to etymologically separate κρατός from the other Greek Caland formations is completely *ad hoc*: it is due to a desperate attempt to retain the etymological connection with Ved. *krātu-*.

leave it out of consideration.⁵⁷⁶ So far, the only other noteworthy IE comparandum that has been proposed for *śithirá-* and the verbal root *śrathⁱ-* ‘to loosen’ is the Germanic verb for ‘to save’ (e.g. OHG. and OE. *hreddan*). There is no obstruction, then, to a reconstruction of the underlying root as **k^hreth₁-*.

The meaning of Ved. *śithirá-* is glossed as ‘loose, lax, slack, flexible, pliant’, and similar meanings are attested for Class. *śithila-*. This meaning, especially ‘lax, slack’, seems to be almost diametrically opposed to the meanings ‘impetuous, fierce’ or ‘steadfast, solid’ of Greek κρατερός. But in the *Rigveda*, where *śithirá-* occurs only four times, it qualifies the whip (*áṣṭrā-*) by which the god Pūṣan controls a herd (RV 6.58.2) and the “loose, strong, golden arms” (*bāhū śithirā bṛhántā hiraṇyāyā*, RV 7.45.2) of the god Savitar.⁵⁷⁷ It is used in the construction *śithiré dhātām* “you two set free” (RV 7.71.5, of the Áśvins) and in *sárvā tá ví śya śithiréva deva* (RV 5.85.8) “... all das löse von uns wie lockere Bände, o Gott!” (addressed to Varuṇa). Clearly, *śithirá-* originally did not mean ‘slack, weak’, but ‘loose’ in the sense of ‘flexible, agile, moving freely’. This already brings us much closer to Homeric κρατερός in its oldest, but still productive meaning ‘impetuous’.

Let us now briefly consider the verbal root in the *Rigveda*, which is attested in the following forms:

- (1) transitive class IX nasal present *śrathnāti* (3x), also class X *śrathāyati* (3x) which is derived from a pre-form **-ṇH-īé/ó-* based on the class IX present.
- (2) causative *śratháyati* (1x), middle *śratháyate* (4x).⁵⁷⁸
- (3) causative reduplicated aorist *śís^rrathat* (8x).
- (4) middle perfect *śaśrathe* (1x).

As an inner-Indic innovation, the reduplicated aorist cannot be old, and the presents *śrathāyati* and *śratháyati* both look like secondary deverbative formations beside the older *śrathnāti*.⁵⁷⁹ In my view, the absence of an old aorist formation, in combination with the causative *śratháyati* and the transitive nasal presents, suggests that the verbal root was originally intransitive (non-agentive, i.e. an older middle or perfect). This is also made likely by the existence of a nominal derivative with Caland morphology, *śithirá*.⁵⁸⁰

The precise meaning of *śrath-* is a complicated problem. At a first glance, the original domain of application of *śrath-* seems to be the loosening of bonds. On a number of

⁵⁷⁶ Departing from a proto-meaning ‘loose’ for καθαρός, Peters compared the semantic shift in Greek λῦμα ‘dirt’, which is mostly derived from λύω ‘to loosen’. However, καθαρός does not originally mean ‘undefiled’, but ‘clean’ in the sense of ‘clear’. In its oldest attestations in Homer, καθαρός denotes a clearing (an open spot) and this use continues to be found in the Classical language (e.g. clear skies, cleared paths or plots of land). There is no indication whatsoever in Greek that ‘loose’ is the older meaning. For further criticism of Peters’ argument, see section 9.4.

⁵⁷⁷ *úd asya bāhū śithirā bṛhántā hiraṇyāyā ... anaṣṭām*, “Seine gelockerten grossen goldenen Arme haben sich [bis zu den Grenzen des Himmels] erstreckt” (Geldner).

⁵⁷⁸ Including **śrathayanta* RV 8.99.6, a generally accepted correction of *śnathayanta* found in the *Samhita* text. The hapax present *śratharyāti* (RV 10.77.4b) can be left aside for purposes of reconstruction: pace Peters (1993a), it must be a nonce formation based on *vithuryāti* in the same *pāda*.

⁵⁷⁹ This is, at least, the opinion of Jamison (1983: 104) “In the absence of any consistently intransitive formation to this root, *śratháyati* is best derived from the deverbative *śrathāyati* according to the type *grbhāyāti* : *grbháyati*.” She interprets the four middle forms of *śratháya-* as the “common creation of a med. intrans.-reflex. formation to act. trans. *-āya*-formations (...) In all cases, we find that the competition between two or more synonymous intransitive presents cannot be old” (1983: 104 n. 64). It cannot be excluded, however, that *śratháyati* is an older causative formation.

⁵⁸⁰ Cf. Rau (2009: 163): “The deverbative nature of many Caland system associative *ro*-stem adjectives can be seen clearly from the behavior of this suffix in Indic and Iranian. (...) the vast majority [of *ra*-stem adjectives] pair with primary verbs”, and of these, “the majority pair with state-oriented verbs or verbs of motion.” One of the examples in his table on p. 164-7 is *śithirá-*. In the accompanying n. 105, Rau remarks: “It is interesting to note that *ra*-adjectives in Indic and Iranian are not as a general matter made to verbs that are associated with result states.”

occasions, we find that a sin (*éna-*) is conceived of as a bond or noose, and removed from a worshipper. Consider, for instance, RV 1.24.14-5 (in Geldner's translation):

“Wir bitten dir den Groll ab, Varuna, mit Verbeugungen, mit Gebeten, mit Opferspenden. Du, der die Macht hat, einsichtsvoller Asura, König, erlass uns die getanen Sünden (*énāṃsi śīsrathaḥ kṛtāni*)! Löse die oberste Schlinge von uns, o Varuna (*úd uttamām varuṇa pāśam asmād ... śrathāya*), löse die unterste ab, löse die mittlere auf! Dann wollen wir, Sohn der Aditi, in deinem Dienste vor Aditi sündlos sein”.⁵⁸¹

This use is also attested in RV 2.28.5-7, where Varuna is asked to release a sin like a girdle (*vī māt chrathāya raśanām ivāgaḥ*, 5a), and to let go all neglect (*vī śū mṛdhaḥ śīsratho*, 7d) with the objective that the worshipper may live in freedom (*jīvāse naḥ*, 7d).⁵⁸² Common to these and similar passages is that sins or moral transgressions are conceived of as bonds, nooses or girdles (*pāśa-*, *raśanā-*).⁵⁸³ These bonds restrain the worshipper in his movements and cause *āmhas-* ‘narrowness, obstruction’ (cf. 2.28.6).

The removal of such restrictions, yielding free movement without impediments, is often expressed in the *Rigveda* by the verbal root *muc-* ‘to untie, release, liberate’, with or without preverbs like *vī*. This is especially salient in RV 1.24, where *muc-* and *śrath-* are used in a semantically completely identical way: compare *kṛtām cid énaḥ prá mumugdhy asmāt* “whatever sin has been done, release that from us” (9d) and *vī mumoktu pāśān* “let him remove the noose” (13cd) with *énāṃsi śīsrathaḥ kṛtāni* “untie the sins committed [by us]” (14d) and *pāśam ... śrathāya* “loosen the noose” (15), respectively. The root *muc-* is especially used to refer to the liberation of horses or the removal of their bridle; similarly, *śrath-* may qualify the movement of horses, in a few instances to be discussed below.

When *śrath-* refers to the liberation from bonds, it takes an accusative object (*pāśam*). Similarly, we find cases like *vī mumoktu pāśān* “let him remove the noose”. Now, Ved. *prati-muc-* ‘to put on clothes’, which has parallels in Iranian, shows that the older meaning of *muc-* was ‘to take off, remove from’ (e.g. clothes, harness, armor). Since *muc-* is the more frequent and productive lexeme in the meaning ‘to loosen a bond’ already in the RV, it may have influenced the less frequent lexeme *śrath-* in this construction.⁵⁸⁴ We therefore have to consider whether *śrath-* may originally have been an intransitive verb in the meaning ‘to be loose, move freely’.

This meaning is indeed attested in a number of instances of *śrath-*, where a connection with words for fury or impetuosity appears from the context. Consider RV 5.59.1cd: *ukṣānte áśvān táruṣanta ā rájō 'nu svām bhānūṃ śrathayante arṇavaíḥ* “they sprinkle their horses as they rush across the sky; along with their own radiance, they go loose (*śrathayante*) accompanied by floods.” This hymn is addressed to the Maruts, the storm deities (the monsoon winds) who are conceived of as riotous young warriors. Their “own radiance” (*svām bhānūṃ*) may well refer to the lightning which precedes the release of the heavy rains.⁵⁸⁵

⁵⁸¹ All following translations from the *Rigveda* are by Geldner.

⁵⁸² Geldner's translation of the intended parts of stanzas 5-7 runs: “Löse die Sünde von mir wie einen Gurt (*vī māt chrathāya raśanām ivāgaḥ*)! (...) Löse von mir die Angst, wie einen Strick vom Kalbe (*dāmeva vatsād vī mumugdhy áṇho*), denn fern von dir vermag ich auch nicht einen Augenblick zu sein. (...) Erspare uns fein die Unbilden, auf daß wir leben (*vī śū mṛdhaḥ śīsratho jīvāse naḥ*).”

⁵⁸³ A releasing of mistakes or sins (*āgas-*) is also found in *yāt sīm āgaś cakṛmā tát sú mṛḷa tát aryamāditiḥ śīsrathantu* “Wenn wir ein Versehen begangen haben, so verzeih uns das fein! Aryaman, Aditi sollen es uns erlassen” (RV 7.93.7cd, Agni is addressed). Cf. also, in almost identical terms, 5.85.7c (to Varuna). These parallels could suggest that the secondary *aya*-present *mṛḷāya-* ‘to forgive, release from sin’ (beside *mṛḷā-*) was due to the influence of *śrathāya-*.

⁵⁸⁴ Influence of *muc-* may also have caused the odd meaning (or reinterpretation) ‘to remove one's clothes’ for certain cases of *śrath-*.

⁵⁸⁵ Cf. the ‘horn’ referred to in the third stanza of this hymn (5.59.3), which (in Geldner's translation) runs: “Wie der Rinder Horn ist euer höchstes Horn prächtig zu schauen, wie das Auge der Sonne bei Aufhören des

In RV 5.54.10, the riotous motion of the Maruts is compared to the pace of their horses: “Wenn ihr gleichgewichtigen Marut, ihr Sonnenmänner, ihr Mannen des Himmels bei Sonnenaufgang ausgelassen seid (*mádathā*), so lassen eure Rosse in ihrem Laufe niemals locker (*ná vó 'śvāḥ śrathayantāha śísrataḥ*). An einem Tage erreicht ihr das Ende dieses Weges.” In his translation, Geldner uses a peculiarity of German with respect to horse-running: “lassen nicht locker” means that the horses do not relent, keep on going. It is perhaps pertinent to compare passages like RV 2.28.4: “Die Ströme gehen den regelrechten Weg des Varuna; sie werden nicht müde und spannen nicht aus (*ná ví mucanti*). Rasch wie die Vögel fliegen sie in ihrem Kreislauf.” Just like the rivers in 2.28.4 keep flowing, which is expressed in horse terminology as “they are not unharnessed” (*ná ví mucanti*), the Maruts are depicted in 5.54.10 as having horses which remain harnessed (*ná ... śrathayanta*). In other words, they keep running orderly in service of the Maruts, and do not bolt.

It is probable that the Maruts themselves are referred to with the unnegated form *śrathayanta* in 5.85.4d, in a hymn addressed to Varuna as a rain-bringer: “Varuna goss den Schlauch mit der Öffnung nach unten in beide Welten und den Luftraum aus; damit durchnetzt der König der ganzen Welt den Erdboden, wie der Regen das Korn. Er netzt den Boden, Erde und Himmel. Wenn Varuna gemolken haben will, dann kleiden sich die Berge in Gewölk und kraftbewusste Männer lockern das Kleid” (5.85.3-4). The last clause is Geldner’s translation of *taviṣṭyántaḥ śrathayanta vīrāḥ*. The context strongly suggests that *vīrāḥ* ‘strong men’, the subject of *śrathayanta*, are the Maruts. Since there is no trace of a piece of clothing in the Vedic text, I would rather translate *śrathayanta* as ‘they are released, release themselves, go loose’ and to compare this clause directly with *śrathayante arṇavaīḥ* “they go loose accompanied by floods” in 5.59.1, discussed above.

On at least three occasions, the object of *śrath-* is a rock or stone. Indra, whose heroic first deeds are briefly summarized in 10.112.8, is said to have “set the rock in motion” (*ásrathāyo adrim*) when he was “really angry” (*satīnāmanyur*).⁵⁸⁶ In 2.24.3 (to Bṛhaspati = Indra), the supreme hero’s feats are summarized as *ásrathnan dṛḥhāvradata vīlītā*, “Das Feste lockerte sich, das Harte gab nach”. In other words, even that which is immovable (*dṛḥhā-*, firm as a rock) was set in motion.⁵⁸⁷ In 10.94.11, part of a hymn to the pressing stones, these stones are called *ádrayo ásramaṇā áśrithitā ámrtyavaḥ*, “untireable, immovable, undying” (Geldner: “nie gelockert”).

Thus, verbal forms of *śrathⁱ* are used to refer to the violent actions of the Maruts, the setting in motion of a heavy stone or an oppressive rock, and the release of fettered human beings or yoked horses. The behavior of the Maruts may be compared with κρατερός ‘fierce’ as a warrior epithet, and their character as storm deities reminds of κρατερόθυμος ‘blowing

Dunkels.” I take *anu* ‘along, together with’ (+ acc.) as a preposition rather than a preverb, and I reject Geldner’s translation “sie lösen durch die Regenfluten ihren Glanz auf” because I fail to see how this could make sense.

⁵⁸⁶ *prá ta indra pūrvyāṇi prá nūnām vīryā vocam prathamā kṛtāni satīnāmanyur ásrathāyo ádrim suvedanām akṣhor bráhmaṇe gām*. Geldner translates “[du] machtest den Felsen mürb”, i.e. ‘you made the rock brittle’, but this is not easily reconciled with *śrathⁱ* in the meaning ‘to release, loosen’. It is interesting that Pindar speaks of a κρατερόν ... λίθον in the myth of Tantalos: ἄν τοι πατήρ ὕπερ κρέμασε κρατερόν αὐτῷ λίθον. τὸν αἰεὶ μενοινῶν κεφαλᾷ βαλεῖν εὐφροσύνας ἁλᾷται, “That [ἄτα], you know, the Father hung over him as a powerful stone. Always desiring to cast it from his head, he wanders far from the joys of festivity” (*Ol.* 1.56-58). The stone which Sisyphus has to push uphill, in the description of his labor in the *Odyssey*, is driven back at the decisive moment by a force called κραταιῆς ‘gravity’ vel sim. (see section 5.2.11).

⁵⁸⁷ Stanzas 2 and 3 of 2.24 together read as follows: “Der das Biegsame mit Kraft niederbog (*yó nāntvāny anaman ny ójasā*) und er zersprengte im Grimm die Sambarafesten. Das unbewegliche brachte Brahmanaspati ins Wanken (*prācyāvayad ácyutā*), da er in den schätzreichen Berg ein und hindurch drang. Das war die Aufgabe für den Göttlichsten der Götter: Das Feste lockerte sich (*ásrathnan dṛḥhā*), das Harte gab nach. Er trieb die Kühe heraus, spaltete mit dem Zauberswort den Vala, er beseitigte das Dunkel, liess die Sonne scheinen.” It may be wondered why Geldner translates the active class IX imperfect *ásrathnan* as an intransitive verb: it would be more likely, in my view, that Indra is the subject of *ásrathnan*.

turbulently’ (Hes.), of the winds. It may also be recalled that καρτερός and κραταιός (κραταιός) are used to qualify the pressure of heavy stones, and that horses are called κρατερόνυχες, which can be translated as ‘with impetuous hoofs’. Considering these instances together, I think that PIE **k^hreth₁-* already referred to an unrestrained or unstoppable violent motion, perhaps as a specialization of a more general meaning ‘to be loose’. As said earlier, more detailed proof of this proposition is forthcoming in the form of a closer inspection of the Rigvedic attestations. But this summary discussion already shows that the seeming gap between Homeric κράτος, καρτερός and Vedic *śrath¹-*, *śithirá-* is not so wide as to be unbridgeable.

5.3.2 The origin and spread of the suffix -ερό- within Greek

Previous etymological proposals for καρτερός have left the origin of the pair κρατύς : καρτερός unexplained. For instance, de Lamberterie states that we are dealing with a “supplétisme des suffixes -ύ- et -(ε)ρό-, hérité de l’indo-européen et bien représenté en grec” (1990: 331). But while there are other instances of inherited adjectives in -u- beside -ρό-, it remains unclear why καρτερός has -ερό-, rather than -ρό-. No instance of **-eró-* can be reconstructed for PIE.⁵⁸⁸ In Homeric Greek, only four examples of -ερό- appear beside a *u*-stem adjective:

κρατύς : καρτερός ~ καρτερός
 γλυκύς ‘sweet’ : γλυκερός ‘id.’
 ταφύς ‘numerous’ : τραφερός ‘solid’
 θαλύς ‘abundant’ : θαλερός ‘id.’

The only form in -ερός attested in Classical prose is καρτερός, whereas γλυκερός, τραφερός, and θαλερός are limited to Epic and poetic Greek. The limited productivity of -ερό- within Epic Greek, which led to the creation of γλυκερός, τραφερός, and θαλερός, must therefore have started out from κρατύς : καρτερός.⁵⁸⁹ For semantic and formal reasons, I have argued above (section 5.2) that the oldest form of the adjective is καρτερός, and that the precursor of κρατύς was of more recent, inner-Greek origin.⁵⁹⁰ This explains the origin of the pair κρατύς : καρτερός.⁵⁹¹

In previous scholarship, a reconstruction **-h₁-ró-* has been proposed for one other adjective in -ερός: ιερός ‘sacred; agile, energetic’ (Ion.-Att., Arc. and Hom.), already found in Myc. *i-je-ro* ‘holy, sacred’ and related to Ved. *iṣirá-* ‘energetic, active, flourishing’. Beside the South Greek form ιερός, several dialectal variants are found (ιαρός, ἱρος, ἰρός).⁵⁹² Beekes

⁵⁸⁸ Chantraine (1933: 229-30) does not distinguish between accented -ερό- and unaccented -επο- (as in ἐλεύθερος). The last word is the only good example of an adjective in **-ero-* that is found in more than one branch of Indo-European: cf. Lat. *liber* ‘free’ < **h₁leud^h-ero-*. In that case, however, the unaccented suffix **-ero-* has its normal oppositional value, “zum Volk gehörig” as opposed to ‘foreign’ (Frisk s.v. ἐλεύθερος; cf. **h₁leud^h-(o-)* ‘people’, which can be reconstructed on the basis of Germanic and Balto-Slavic). Note that θαλερός ‘abundant’ cannot be directly equated with Arm. *dalar* ‘fresh, green’, because **d^hlh₁-ró-* would yield Gr. ⁺⁺θαληρός (cf. the remarks in Clackson 1994: 118-20). The older Greek form is the *u*-stem adjective **θαλύς*, and θαλερός, like γλυκερός, must be a secondary formation.

⁵⁸⁹ We have seen (section 4.3.2) that τραφερός was probably formed beside compounds in -τρεφής, and therefore points not to κρατύς : καρτερός, but to -κρατής : καρτερός as a model.

⁵⁹⁰ Κρατύς may have supplied a new simplex adjective beside the Caland system of **krétos*, **-kretēs*, **k_ṛti-*, **k_ṛta*. If an intransitive verbal stem still existed in Proto-Greek, κρατύς may even have been deverbal.

⁵⁹¹ As explained in section 5.2.9, the semantic identity of κρατύς and καρτερός, which has to be assumed for an earlier stage of Epic Greek, could be due to a preservation of the older meaning of καρτερός in poetry.

⁵⁹² West Greek, Boeot., Pamph. ιαρός, Lesb. ἱρος, North-Eastern Ion. ἰρός. For the attestations, see Locher (1963: 5-8). Since the Lesbian form is ἱρος rather than ⁺⁺ἱπρος, García Ramón assumes that it was influenced by

(1969: 184f., 1973: 387f.) reconstructs a root **Heish₁-* and assumes that **Hish₁-ró-* > PGr. **iheró-* was assimilated to **ihiró-* in the dialects underlying Hom. ἰρός and Lesb. ἱρός, then contracted to *(*)hīró-*.

In his extensive discussion of the Greek evidence, however, García Ramón (1986, 1992) has argued that **-h₁-* is unlikely to have been root-final in PIE. He assumes that there was only one single Proto-Greek form **isró-*, and that ἱερός, ἰαρός, and ἰσῖρά- all have a secondary vowel. His second argument against a root ending in **-h₁-* is the comparison between Ved. *iṣṇāti* ‘to set in motion, send away’ and ἰνᾶω ‘to empty’ (medical term), ἰάομαι ‘to heal’ (which he derives from an older athematic reduplicated present). In his view, both Greek verbs point to a root ending in **-h₂-*. While some details of García Ramón’s analysis could be debated, I agree with him that the Greek adjectives are best explained from a pre-form **isró-*. West Greek ἰαρός may owe its suffix to one of the other adjectives in -αρός. In my view, South Greek may have formed **iheró-* after **krteró-*: the two adjectives are semantically close and occur in similar traditional syntagms.⁵⁹³ It appears, then, that the Homeric variants ἱερός and ἰρός were not necessarily taken from two different dialects: ἰρός is an archaism, ἱερός the productive South Greek form.

Let us now consider the other Homeric examples for the adjectival suffix -ερός collected by Risch (1974: 69). It is probable that σκιερός ‘shady’ (2x) is a later form than σκιάεντ- ‘id.’ (15x, formulaic). The word is clearly poetic; it is noteworthy that σκιερός on both occasions qualifies a sacred domain (νέμος, ἄλσος), and that Pindar and Bacchylides use σκιαρός. There are several options for a secondary origin of σκιερός: influence of ἱερός (assuming that σκιαρός is older: cf. West Greek ἰαρός) and/or δνοφερός ‘dark, gloomy’, both of which are semantically close, or analogy with the Epic pair κρύεντ- : κρυερός. It is further possible to assume that διερός ‘quick, lively’ (no established etymology, cf. *DELG*) was influenced by ἱερός in its original meaning ‘active, agile’. The poetic form μαλερός ‘vehement, crushing’ can be analogical after κρατερός ~ καρτερός on the model of the proportion μάλα : κάρτα (or their respective pre-forms with **r*; see section 5.2.8).

The remaining three Homeric forms with -ερό- are στυγερός ‘hateful, dreadful’, δνοφερός ‘gloomy’, κρυερός ‘dreadful, ghastly’. At first sight, κρυερός seems to be the oldest of them, in view of the similarity with Ved. *krūrā-*, Av. *xrūra-* ‘bloody’ < **kruH-ró-*. However, since -ερό- is not the same suffix as Ilr. **-rá-*, κρυερός has to be a secondary reshaping of Greek. The other two formations, στυγερός and δνοφερός, do not seem to be inherited. Since they have similar meanings, they may have influenced each other.⁵⁹⁴

In post-Homeric Greek, the suffix -ερό- was rather productive in poetry, and occasionally penetrated into prose.⁵⁹⁵ I have been able to identify two productive models for its spread:

neighboring Eastern Ionic. Differently Peters (1980: 325), who assumes that Lesbian ἱρός was borrowed from Mycenaean *i-ro*.

⁵⁹³ Compare ἱερόν μένος ~ κρατερόν μένος, ἱερὴ ἴς ~ κρατερὴ ἴς, and for the meaning ‘quick, agile’, cf. ἱερός δίφρος ‘swift wagon’ (*Il.* 17.464), ἱερός ἰχθύς ‘agile fish’ (*Il.* 16.407). The meanings are not identical: ἱερός seems to refer to beneficent energetic movement, whereas κρατερός has the connotation of unbridled and violent energy.

⁵⁹⁴ Cf. e.g. κλαυθμοῦ τε στυγεροῖο beside κρυεροῖο γόοιο, both ‘dreadful wailing’, στυγερός σκότος ‘hateful darkness’ beside δνοφερός ‘dark’. There are several possible ways to explain this. For instance, κρυερός could be a reshaping of an inherited formation PGr. **krūró-* after another adjective in -ερός (e.g. κρατερός ‘violent’) and may then have influenced the formation of στυγερός and of δνοφερός (note that the latter has no established etymology). Alternatively, if the most frequent form στυγερός (44x) is the oldest instance of -ερός among these three adjectives, it may have influenced the formation of δνοφερός and κρυερός. Note that στυγερός stands beside a present in -έω (στυγέω ‘to hate, shun’), and could in theory be analogical after κρατέω : κρατερός.

⁵⁹⁵ Chantraine (1933: 230) stresses that the adjectives in -ερός generally belong to a higher, mostly poetic register: only φανερός, φοβερός, φθονερός, and βλαβερός and “quelques autres” (we may certainly add

(1) creation beside an existing *s*-stem adjective. This may have happened in -βλαβής (Hom.+) → βλαβερός ‘damaging’ (Hes.+), -σφαλής (Hom.+) → σφαλερός ‘wavering; slippery’ (Class.), -φανής (Hom.+) → φανερός ‘shining, clear’ (Pi.+). The model may have been κρατερός beside -κρατής or θαλερός beside -θαλής, the two cases where both formations are attested in Homer.

(2) δνοφερός (Hom.) was reanalyzed as derived from δνόφος ‘darkness’ (A., Simon.). This single example led to a productive derivation of adjectives from thematic nouns: φόβος → φοβερός (Class.), γόος → γοερός (trag.), φθόνος → φθονερός (Thgn.+), ψόγος → ψογερός (Pi.), μόγος → μογερός (trag.), νόσος → νοσερός (Hp.) and similar forms. All these forms have negative connotations; the *o*-grade thematic substantive is clearly the primary formation, and the derived adjectives in -ερός are in most cases limited to poetry.

Even if the origin of στυγερός, δνοφερός, and κρυερός can be debated, we may conclude that all other instances of the suffix -ερό- in Epic and Classical Greek can be traced back to κρατερός ~ κρατέρως. In this adjective, which can be equated with Ved. *śithirá-* and reconstructed as **kr̥th₁-ró-*, the suffix -ερό- arose by a reinterpretation of the reflex of **h₁* as forming part of the inherited adjectival suffix -ρό-.

5.4 Conclusions for the vocalization of **r̥*

The present analysis of κράτος, κρατερός and related forms has corroborated the conclusions reached in chapter 4. Like the other *u*-stem adjectives, κρατύς (whence Class. κρατύνω) generalized a form with the vowel slot of the original strong stem. The root allomorph κρετ- was preserved only in the comparative Ion. κρέσσων, but κρατ- was introduced from κρατύς in κράτιστος, κράτος, -κρατής, and the derived verb κρατέω. Within Epic Greek, καρτύνω was based on the artificial form κάρτος. None of these forms can be used as evidence for the regular vocalization of **r̥*.

In the Homeric doublet κρατερός ~ καρτερός, only the latter form is the regular outcome of **kr̥teró-* < PIE **kr̥th₁-ró-*. In my view, it is to be derived from the verbal root **kr̥eth₁-*, and to be directly equated with Ved. *śithirá-* ‘loose’. The variant κρατερός replaces the *u*-stem adjective κρατύς (itself of inner-Greek origin) within Epic Greek, and came into being either as a cross between κρατύς and καρτερός, or as the regular Epic outcome of **kr̥teró-*. Apart from κρατερός, the regular Ionic-Attic reflex of **r̥* is also found in the post-Homeric adverb κάρτα. Once the doublet κρατερός ~ καρτερός existed, analogies within Epic Greek led to the creation of κάρτος (beside κράτος) and κάρτιστος (beside κράτιστος). Classical prose does not have such by-forms: it only has καρτερός (whence καρτερέω), κράτος, κράτιστος, and κρατύνω.

I conclude that of the formations belonging to this root, καρτερός and κάρτα are the only two to display the regular Proto-Ionic vocalization of **r̥* to -αρ-. The Epic forms κραται-, κραταιός and κραταιίς (all with *muta cum liquida* scansion) also directly continue a pre-form with **r̥*, but as I will argue in the next chapter, they did not vocalize in the Proto-Ionic vernacular: they underwent a separate, inner-Epic development **r̥* > -ρα-.

καρτερός) are found in prose. He further notes that the suffix was ousted by -ώδης in Ionic-Attic and in Koine Greek.