ABSTRACT OF PHD DISSERTATION

STUDIES ON THE AUGMENT
IN GREEK AND INDO-IRANIAN

MÁTÉ ITTZÉS

Eötvös Loránd University, Faculty of Humanities
Doctoral School in Linguistics
Programme in Classical Philology

Supervisors:
Prof. Dr. János Harmatta, academician †
Dr. Imre Tegyey, PhD

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Subject and aims of the dissertation

My PhD-dissertation focuses on questions concerning the verbal prefix called augment, which is used in particular Indo-European languages, viz. Greek, Indo-Iranian, Armenian and Phrygian. The augment is attached to the verbal stem in the past indicatives (imperfect, aorist and pluperfect): e.g. Gk. pres. φέρω 'I carry' : impf. ἔφερον 'I carried'; OInd. pres. *bhárāmi* 'I carry' : impf. *ábharam* 'I carried'; Arm. pres. *berem* 'I carry' : aor. *eber* 'he carried'. The original form of the augment can be reconstructed as *e- (*h_1e-?): *e- > Gk. ὲ-, IIr. a-, Arm. e-, Phryg. e-.

The aim I set for my dissertation was to provide answers for some of the problems concerning the history of the augment in individual Indo-European languages, with special reference to Greek and the Old Indo-Iranian languages (Old Indian, Avestan, Old Persian). It was *not* my purpose to discuss all the questions raised by the history of the augment both in the various individual stocks and before their separation. No such monograph has ever been published that would try to answer all these questions. From what has been said it follows that my dissertation did not aim at doing that, either. But I am convinced that it is only by thorough clarification of the "*einzelsprachlich*" problems that one will be able to correctly interpret the verb system of the Proto-Indo-European and the "*zwischengrundsprachlich*" periods as well. It is this point I wanted to contribute to with my dissertation, particularly within the domain of Greek and Indo-Iranian historic linguistics.

My dissertation does not contain a "*Forschungsbericht*" on the augment in general. It would have been a hopeless, and in some sense aimless, enterprise, for most of those comparative or historical linguistic works that deal with either the parent language, or the historical grammar or even a minor detail of the verb of the augment-using languages usually touch upon the problem of the augment in one way or another. The complete enumeration of them is impossible. Of course, in the certain chapters, when it was relevant, I did survey the history of scholarship on particular issues.

My dissertation consists of five chapters, the first of which serves as the real introduction to the subject, while the other four can be regarded as a sequence of separate studies that search the answer for four "*einzelsprachlich*" problems.

marker of past tense in the augment-using language community. I also have to add that, although I did not take sides firmly in this respect, I think that K. Hoffmann's theory of the *Vedic* injunctive ("memorative"), widely accepted nowadays, is not without its own difficulties, either. In the third part of the chapter I described the fundamental questions and the main points of the development of the augment and the verb-system in the individual augment-using languages.

The augment in Mycenaean

In the linguistic records of Mycenaean dating from the 14–13th c. B.C., the so-called syllabic augment of the consonant-initial stems is generally omitted (e.g. <te-ke> *thēke*). In the case of the vowel-initial stems, the linear B writing system can not indicate the so-called temporal augment due to its orthographic peculiarities, so unfortunately we have to leave aside their examination (e.g. <o-po-ro> may be *ophlon* or *ōphlon*). However, the existence of the temporal augment can not be ruled out in the Mycenaean documents, because the very phenomenon must be a Proto-Greek, and therefore Pre-Mycenaean, development, as it is proved by the fact that the augment of the stems beginning with $*H_xe$- (> Gk. V_x-), $*H_xC$- (> Gk. V_xC-) does not show any dialectal differences.

In *Chapter II* of my dissertation, I first took into consideration one by one all those Mycenaean forms, in which the occurrence of the augment has already been suggested before. Two of them could be left aside with certainty, while two others called for a more detailed examination. Against the aorist <a-pe-do-ke> (PY Fr 1184), which is interpreted by most scholars, to my mind correctly, as augmented *apedōke* (from *apudidōmi*), two different objections have been put forward. According to one of them, we are rather facing a word with two preverbs, i.e. *ap-es-dōke* (Attic ἀπέσδοκε), while the other postulates a Pylian sound change /u/ > /e/, which operated also in the case of augmentless *apudōke*. The arguments of the two theories turned out to be untenable.

In connection with the supposed sound change /u/ > /e/, I dwelt on the form <po-ro-e-ke-te-ri-ja> (PY Ta 709), and taking this as a starting point I also discussed the nouns with the complex suffix -tērio-/-tēriā- in Homeric and Mycenaean. I found that the analogical development of substituting the full-grade root for the zero-grade root before the suffix -tērio/ā- (and -tēr), which can be observed in the epic language, can already be demonstrated in Mycenaean as well. However, it can always be accounted for by the avoidance of homonymic clash or the analogy of other members of their word family.

The origin of the augment and the development of the verb system

The previous stages of the augment's history can not be ignored even when dealing with its "*einzelsprachlich*" problems. There are two current opinions among Indo-European linguists as regards the question, how far these stages can be traced back in the case of the prefixal verbal augment. According to one of them, the augment had been part of the Proto-Indo-European verb system, and later it was lost in some languages, but retained as an archaism in those that in fact use it. The other possibility, which is *a priori* more probable in view of the fact that the languages concerned are connected by many isoglosses, is that the augment is a common innovation of the "*zwischengrundsprachlich*" community (or dialect block) of the ancestors of Greek, Indo-Iranian, Armenian and Phrygian. Theoretically, the first possibility can not be ruled out automatically either, but, as the *a priori* less probable suggestion, it could be proved only if we were able to demonstrate factually its former existence in the other languages, as well. In the first part of *Chapter I*, I dealt with the attempts that aimed at doing exactly this (in Germanic, Hittite, Balto-Slavonic, Albanian, Tocharian and Celtic).

I drew the conclusion that none of these attempts proves undoubtedly the former existence of the augment in other languages, therefore we have to give preference to the second of the two possibilities mentioned above. The most solid argument in favour of the existence of the augment already in the parent language would have been the demonstration of the augment in Hittite. However, the past tense of the verb 'to be' (1st sing. <e-šu-un>/ésun/) adduced by some scholars as an evidence is not conclusive in this regard.

All this means that we have to view the augment as an innovation that came into being *before* the period of the individual languages, but *after* the disintegration of the parent language, and whose spread and development in the individual languages can be grasped partly through reconstruction and partly through linguistic records.

In the second part of the chapter I sketched the development of the tense-mood system of the Proto-Indo-European verb. The so-called injunctive, which is one of the most often discussed phenomena, is regarded by many as a category of the PIE verb with the distinctive semantic feature of "mentioning", but, following others, I consider it rather an ancient verb form that is unspecified for the dimensions of tense and mood and one that is the most archaic layer of the history of the verb. The tense and mood categories evolved gradually from the injunctive through the morphological marking of various semantic features. It is in a late phase of this development that the augment appeared as the

All this means that the augment is in fact used in the linear B documents, but in a very small percentage. But we have to remark that the number of the augmentless past tenses is also few: 31 altogether, with only 16 that can be interpreted with certainty. A number of theories have been suggested for the problem of the Mycenaean augment. According to what has been said above, we had to reject immediately those theories which reckon with the total absence of the augment in the documents. On the basis of the examination of the dialectal peculiarities of the individual scribes, we could also refute the hypothesis that the use of the augment is bound up with the dialect division „mycénien normal" ~ „mycénien spécial" set up for Mycenaean by E. Risch.

The explanation of the problem is given by the fact that the past marker augment, being an innovation, gained ground only gradually in Greek, and particularly in Mycenaean as well. In the aorists that record facts, the type of aorists that occurs in the documents (we have no certain instances of imperfect!), its spread had just commenced, but it had in fact started not only in the innovative language usage of the lower social classes, as supposed by many, but also in the language of the higher classes and the chancellary idiom. We can assume that in language usages and communicative situations different from that of the documents the augment played a greater part even at that time, too.

The problem of the augmentless Ionic iteratives

The group of the so-called Ionic iteratives, to be found mostly in Homer and Herodot, consists of exclusively past tense (imperfect and aorist) verb forms, in which a suffix -σκε/ο- is attached to the primary verbal stem (aspect stem), which suffix is followed by the so-called secondary endings (e.g. φεύγεσκον, σπείεσκον, ἵστασκε, δόσκον). These verb forms are practically always used without the prefixal augment. They express the iterative and other related (durative, distributive, usitative, etc.) types of "Aktionsart" (manner of action).

In *Chapter III* of the dissertation I first examined the usage and the morphological peculiarities of the iteratives, also dwelling on the irregular forms in Homer. After that I discussed the problem of dialect affiliation and drew the conclusion that the opinion of the ancient commentators, though often disputed, is still in fact correct and we have no reason for assuming that the use of the iteratives is characteristic of the Homeric language only and everywhere else we have to do with epic imitiations.

It was necessary to touch upon the question of the general distribution of the Homeric augment too. I surveyed its most important semantic-functional and syntactic explanations, none of which I found completely convincing, however. I did not set the aim for myself to offer a definitive answer to this general problem, but it clearly appeared that none of these theories gives an acceptable answer to the question of the augmentlessness of the Ionic iteratives in particular, albeit some or more of their suggestions might be worth considering in other contexts.

In the next part I examined the syntactic behaviour of the iteratives in Homer. I drew attention to the fact not pointed out hitherto that, although the iteratives very often occur in groups (the best example being *Il.* 24, 3–24), another type of syntactic structure can also be observed as a tendency (more clearly in the *Iliad* and less clearly in the *Odyssey*), in which the iteratives form a coordinate connection with imperfects (but not aorists), which are morphologically unmarked for "*Aktionsart*", but still express repeated or long-lasting events or actions themselves. In such cases the latter verb forms, similarly to the iteratives, are also in a great number unaugmented. E.g.:

οὐδέ τι τόν μέμνηται, ὃ οἱ μάλα πολλάκις υἱὸν
τειρόμενον ὥεσκον ὑπ᾽ Εὐρυσθῆος ἀέθλων.
ἤτοι ὁ μὲν κλαίεσκε πρὸς οὐρανόν, αὐτὰρ ἐμὲ Ζεὺς
τῷ ἐπαλεξήσουσαν ἀπ᾽ οὐρανόθεν προΐαλλεν. (*Il.* 8, 362–365)

Neither hath he any memory of this, that full often
I saved (iterative) his son when he was fordone by reason of Eurystheus' tasks.
For verily he would make lament (iterative) toward him and from heaven
would Zeus send (imperfect) me forth to succour him. (transl. Samuel Butler)

Since it is not an indepent constituent that is involved, this phenomenon, to some extent similar to Kiparsky's conjunction reduction, was explained by me in that way that the first verb form extends or emits its morphologically marked iterative "*Aktionsart*" onto its following narrow context. However, this phenomenon should rather be interpreted as a process of strengthening or making something explicit, because the semantic feature that the iteratives thus mark for is implicitly present in the verb forms at the second and further positions as well. On the other hand, the fact that the imperfects at the second place of the coordinate structure are in a great number augmentless supports the view that the iteratives, which stand at the first place, are marked also for past tense, in other words that their morphological stucture involves this semantic feature, too.

In the last and main part of the chapter I made an attempt to explain the augmentlessness of the iteratives, taking the process of their origin and development as my starting point. The suffix -σκε/ο- of the iteratives, which is attached to the aspect stem, originates from the PIE present stem suffix *-sḱ-,

which was a thematic suffix attached to the zero-grade root in the parent language and which originally was used to express iterativity and other related meanings of verbal plurality. Therefore the iteratives are often connected to the Armenian weak aorist with a -c´- suffix (e.g. pres. *mnam* 'I stay' : aor. *mnac´i* 'I stayed'), which is, according to the traditional approach, also the reflex of the same PIE suffix. Nevertheless, many important differences can also be demonstrated between the two categories, therefore I accepted the view that the verb forms in questions came into being independently in the two languages, which means that I regard the formation of the iteratives as an inner-Greek, or to be more precise, inner-(pre)Ionic process.

The most important moment of this process was the following. The Ionic dialect inherited a present stem ἔσκε/ο- (< ie. *h₁s-ské/ó-) of the verb 'to be', which alone had retained the original iterative-durative meaning among the -σκ-stems. From its imperfect forms (e.g. 1st sing. ἔσκον, 3rd sing. ἔσκε), which after the disappearance of the functionally weak present indicative (and the other moods) were preserved alone from the verb's paradigm and were therefore unaugmented, the speakers analogically detached -σκον, -σκε, etc. and transformed them into a special set of "iterative endings". These iterative endings were then attached to the various athematic and thematic primary (aspect) stems, exactly similarly to the primary and secondary endings. Since for these reasons the new iterative endings were used only in past indicatives (in contrary to the secondary endings, which also occurred in the optative), they precluded the use of the augment, which is also the marker of past tense (indicative understood).

The problem of the supposed syllabic augment „*ē-"

On the basis of some Greek (e.g. Hom. ἀπηύρα, ἠείδη; Att. ἑόρων) and Rigvedic (e.g. *ā́naṭ, ā́raik, ā́vṛṇak*) verb forms some scholars have argued that in addition to *e- the syllabic augment also had a variant *ē-. In *Chapter IV* of my dissertation I examined this hypothesis through surveying all the relevant forms of the two languages.

In Greek, the verb forms with apparently long syllabic augment are used in the Homeric language and the Attic dialect and are almost entirely confined to stems that apparently began originally with "digamma", i.e. *u̯-. According to a wide-spread view, the two facts, long augment and digamma, are closely connected. However, this has already been refuted by many on the basis of such short augment forms as e.g. εἶδον < *éu̯idom, Hom. ἔειπε < *éu̯eu̯kʷet, etc. After thoroughly examining the

individual forms I drew the conclusion that none of them proves the former existence of a long syllabic augment *ē-.

In this context, the Attic imperfect ἑόρων is generally traced back to earlier *ἠ̆ϝορ-, in which the loss of digamma was followed by the so called quantitative metathesis. However, as the recent examination by O. Hackstein has proved, the verb is the continuant of a PIE root *sμerh₃r-. Therefore in the augmented forms we have to posit *é-sμor-. In Attic-Ionic the compensatory lengthening after the loss of *s > *h is a closed long vowel /ē/ (<ει> in the new Attic alphabet), which means that the outcome was *ésμor- > *éhμor- > *(h)ēμor- > *(h)ēor-. At this point it was necessary to discuss the question of the so-called Attic-Ionic quantitative metathesis (and the Binnenhiatkürzung, a related phenomenon, which is more common in Ionic), which sound change according to the traditional view affects only the open long vowel /ē/ <η> (i.e. ηο > εω and ηα > εα with metathesis). But as some scholars have already pointed out, the validity of the sound change also has to be extended to the closed /ē/, but thus far only a few isolated examples have been cited in favour of this. I consider one of the most important results of the chapter that in the case of *(h)ēor- > ἑόρ- and some other verbs I revealed new evidence for this type of the metathesis. I am aware that this needs some further examination, therefore I do not exclude the possibility that in the examples mentioned the constantly short vowel ἑ- of the syllabic augment served as an additional motivating factor for the sound change.

As for Vedic, the view has recently gained ground that the long syllabic augment is in each case the effect of the compensatory lengthening of a short augment due to loss of tautosyllabic laryngeals (*éH.C- > véd. ā́.C-), which was later normalized as short ā- after the Vedic period. In certain instances the circulus vitiosus of this hypothesis is obvious, since sometimes it is only the supposed Vedic lengthening of the augment that would be the evidence for the stem-initial laryngeal. In the second part of this chapter I examined the Vedic forms anew and pointed out that although in several cases the former existence of a laryngeal is indeed certain or probable, in three cases we can not absolutely reckon with this explanation. The origin of the latter forms in the Rigveda was explained by me by certain analogical effects of the former group and by metrical-prosodic reasons. Consequently, since all the Greek and Vedic verb froms that apparently show a synchronically long augment came into being without exception due to independent developments in the individual languages, we can not reconstruct an earlier variant *ē- of the syllabic augment.

The temporal augment in the Indo-Iranian languages

By temporal augment is meant the augmentation of the stems that synchronically begin with a vowel. The temporal augment consists of the change of the "temporal" properties, viz. lengthening or up-grading, of the stem-initial vowel, in different ways according to languages. Originally the prefix *e- had been in use with these stems as well, but, after the disappearance of the laryngeals, it merged with the stem-initial vowel in the individual languages.

In Old Indian, the explanation of the temporal augment becomes problematic in the case of the stems beginning with *i-*, *u-* (and *r̥-*, which, however, has to be treated separately) because in their augmented forms the result of the combination of the augment *a-* and the stem-initial vowel is, in contrast to the well known sandhi-rules *a* + *i* → *e*, etc., always a long, or in the system of vowel gradation vṛddhi, diphthong (e.g. pres. *uchati* : imperf. *auchat*). According to the most plausible interpretation, which in its main points has been accepted for a long time, the two vowels, which came into contact due to the loss of the intervocalic laryngeals in the Proto-Indo-Iranian period (*a-Hi-* > *a-i-* and *a-Hu-* > *a-u-*), formed a vowel connection *ai-* and *au-* respectively, which could be pronounced either mono- or disyllabic. When the original short diphthongs were regularly monophthongized in early Old Indian (*ai* > *e*, *au* > *o*), the augment was restored and retained in these forms, as a result of which vowel groups with hiatus came into being (*aï-* and *aü-* respectively). Later these vowel groups were contracted into the diphthongs *ai-* and *au-* and in this way merged with the original long diphthongs, which by this time had already been shortened phonetically and also became *ai-* and *au-* (*āi̯/ > /ai̯/ and *āu̯/ > /au̯/).

I pointed out that due to phonological reasons the roots beginning with "r̥-" (or PIE *Her-) have to be treated separately in this context in several respects, for in want of unambiguous parallels it can not be decided what the regular development of the sequences *VHRC was in the Vedic language.

The most important result of this examination is that in the phonologically irregular development mentioned above I revealed the role of important analogical factors, which have not yet been emphasized in the various interpretations. Such an analogy was provided in Old Indian by those stems of roots beginning with PIE *Hei̯- or *Heu̯- that contained a full or lengthened grade root throughout their imperfect or aorist paradigms. For these, in contrast to the type *uchati* : *auchat*, began with a "long" vṛddhi vowel in all of their augmented forms regularly (e.g. *oṣati* : *auṣat* < *h₁eu̯seti : *éh₁eu̯set). While in the case of the roots beginning with *Hei̯- and *Heu̯- it was only the thematic present that had a significant role in the formation of the Old Indian type of the temporal augment, in the

case of the roots beginning with *Her- we also have to add the root aorist as an important analogical factor.

In the Old Iranian languages we have only few examples of temporal augment, most of which have to be omitted because of other considerations. Therefore in the second half of the chapter I looked for an answer to the question, what type of augmentation we would find in the Old Iranian languages in the past tenses of the counterparts of the Old Indian stem types *uchati* : *auchat*. There are some scholars who suppose that Old Persian used a "long diphthong" augmentation quite similar to Old Indian, which seems be proved by the imperfect *ārsam* <a-r-s-m> (cf. OInd. *ārcham*) from the present stem *h₁r̥sḱé/ó-. Since we have no relevant forms from roots beginning with *Hei̯- and *Heu̯-, this suggestion could be proved if one demonstrated that in Old Persian, similarly to Old Indian, the phenomenon existed that the temporal augment and the vṛddhi-derivatives contained the same long diphthongs (e.g. Ved. *ichati* : *aichat* ~ *mitrāvaruṇā* ~ *maitrāvaruṇá-*). In want of other evidence the decision of this question depends exclusively on the interpretation of the Old Persian month's name <ϑ-a-i-g-r-č-i-š> DB II 46, which most probably hides a sound form *ϑāigračuiš* (although neither this is indisputable), which, being a two-stage derivative of *ϑigra- 'garlic', apparently shows the Old Indian type of nominal derivation (*ϑigra- → *ϑigraka- → ϑāigračī-). However, I suggested as an alternative explanation that the first step of the derivation could well be *ϑāigraka-, for we also have other examples too of the simultaneous application of vṛddhi-gradation and some derivative suffix. From all this I drew the conclusion that for Old Persian we have to assume short diphthongal vṛddhi-derivatives, which are abundantly known from Avestan, and thus also the same short diphthongal type of temporal augment. This means that the Old Indian long diphthongal temporal augment is without parallels even within Indo-Iranian and has to be considered an innovation unique to this language, similar to which did not come into being in Old Persian independently, either.

The most important results of the dissertation

Among these results I regard the following as the most important ones. Through revealing their origin and the process of their development I found an explanation for the augmentlessness of the so-called Ionic iteratives. I refuted the existence of an earlier long syllabic augment *ē- while explaining the Greek and Vedic verb forms that are apparently pointing to this by regular sound changes and analogical processes. During this I found new examples which support the view that the Attic-Ionic

quantitative metathesis does in fact affect the closed long vowel /ē/ too. I tinged the picture of the explanation of the Indo-Iranian temporal augment and the Mycenaean augment with several new considerations and details.

Publications in the field of the dissertation

Megjegyzések a mykénéi görög nyelv igeragozási rendszeréhez [Remarks on the Verb System of Mycenaean Greek]. In HORVÁTH László et al. (szerk.): *ΓΕΝΕΣΙΑ. Tanulmányok Bollók János emlékére [Studies in Memory of János Bollók]*. Budapest, 2004, Typotex, 675–683.

The Augment in Mycenaean Greek. *Acta Ant. Hung.* 44 (2004), 143–150.

Nomina with Suffix *-tērio-/-tēriā-* in Homeric and Mycenaean Greek. *Annales Univ. Sci. Bud. Sectio Linguistica* 26 (2003–2005), 103–118.

Problems of the Augment in Vedic. *Acta Ant. Hung.* 45 (2005), 207–223.