Teaching Greek Verbs: A Manifesto

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ABSTRACT

We propose that the teaching and learning of Greek verbs be reformed in three areas in order to improve comprehension and reduce frustration: (1) Students should begin working with sound combinations before beginning to study Greek verbs, and every set of forms they learn should be an opportunity to reinforce the rules of sound combination. (2) Students should build their understanding of the architecture of Greek verbs on the structure embedded in a "Master List" (based on distinguishing primary and secondary, active and middle, and the thorough integration of -μι verbs). A two-page outline of verb endings and structure is appended to the article for this purpose. (3) Students should concentrate on an abbreviated but well-organized mastery of principal parts (the first three principal parts, organized by patterns in stem formation).

Perhaps no area of learning ancient Greek frustrates students and teachers quite as much as the Greek verbal system. Verb forms and verb types seem so numerous and exceptions so frequent that it has become a truism that Greek verbs are exceptionally difficult and complicated. Like many truisms, however, this particular truism is not really true. To be sure, the principles of constructing Greek verbs are highly productive and generate many distinctive forms, but the principles are not especially complex. The analysis of stems, connecting vowels, and endings is usually fairly easy to see, and a few patterns of endings are used over and over again. The verb system is able to do so much with so little by using different verb stems, varying the usual pattern of connecting vowels (occasionally leaving them out), and adding prefixes and suffixes.

Why, then, is there so much confusion and near despair about Greek verb forms? The answer is not difficult to see if we consider what busy teachers and students find when they look to standard textbooks for help in simplifying and conceptualizing how verbs work. New verb formations (tenses, voices, etc.) are often accompanied by a cloud of exceptions, ever finer distinctions, and endings that seem to mean one thing and then later mean something else (e.g., passive and deponent verbs). And, should teachers and students look for some kind of "big picture" explanation in an appendix on verbs, the arrangement of the material and the sheer quantity of verb forms will likely overwhelm any hope of simple explanation.[1]

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1 Even overviews or summaries of Greek verbs in beginning textbooks consistently run ten or more pages. Consider the following survey of twenty currently available textbooks (alphabetical by author): Balme and Lawall (*Athenaze*) Book II: 294-308 (15 pages), Beetham (*Learning Greek with Plato*): 396-428 (33 pages, includes participles), Chase and Phillips: 149-63 (15 pages), Crosby and Shaeffer: 296-323 (28 pages), Groton: 461-95 (35 pages, includes participles), Hansen and Quinn: 650-84 (35 pages), JACT Grammar and Exercises: 400-435 (36 pages), Keller and Russell workbook part 1: A95-108 (14 oversized pages), Luschnig and Mitchell: 298-307 (10 pages), Mastronarde: 359-78 (30 pages), Mollin and Williamson: A28-48 (11 oversized pages), Nairn and Nairn: 203-77 (75 pages), Paine has no

The present article is intended to provide a simple core and starting point for the study of Greek verbs and to articulate a range of recommendations designed to be of practical help for both students and teachers. The article, moreover, has grown out of the conviction that Greek verbs are actually simpler than they seem and that commonly used textbooks unwittingly make learning this area of Greek much harder than it need be. Textbooks do this, not because what they say is wrong, but because the way they present the material obscures the simple and regular principles that underlie the verbal system. Specific examples are legion, but they reduce to three basic tendencies: 1) a focus on the exceptional rather than emphasis on the regular; 2) multiplication of charts and descriptions rather than stressing basic, common principles of construction; and 3) mixing the problems of morphology and semantics rather than separating, as much as possible, the difficulties of form from difficulties of meaning.

Since one of the main goals of this article is to provide a "big picture" view of Greek verbs, we have aimed at a certain level of generality in framing problems and recommendations and have tried to keep interesting details from drawing the discussion too far from the main argument. We have, for example, sought to avoid assumptions about what textbooks teachers may be using or what pedagogical approach they may employ (e.g., so-called "grammar based" or "reading-based" methods). We have also resisted the temptation to cite specific examples from specific textbooks, since doing so only suggests that the pedagogy of Greek verbs is limited or framed by one or more textbooks. Finally, we have not suggested specific scenarios for how the various recommendations might be put into effect in the classroom. Future articles devoted to specific topics such as teaching contract or -μι verbs will have to fill in the details, but for now, an overarching summary of key issues needs to be kept clearly in view. Such overall generality, therefore, means that the recommendations offered must be understood as a range of possibilities and options from which instructors may choose as their circumstances dictate. Some suggestions will be easy to implement in almost any Greek classroom, no matter what the text or method. Other recommendations will appear as ways to work around problems or deficiencies of textbooks in use. Finally, some suggestions are made with a new and ideal arrangement of the material in mind and will likely be difficult to actualize within the framework of any currently available teaching text. The recommendations of this last variety may not have the same practical appeal, but we feel that it was nonetheless important to raise these issues in the interest of laying the foundation for better books and more effective teaching materials in the future.

The Master List of Endings of Greek Verbs

Appended to this article are two pages which will be referred to as the "Master List" (short for "The Master List of Endings of Greek Verbs"). The first page lays out the endings of the indicative mood. Six boxes highlight (in 14-pt red font) the various sets of personal endings, with information about where these endings are deployed boxed in a smaller font below the endings. The second page lays out the endings for other moods, again with the key endings highlighted in red.[2] The goal of the format is to provide two easy-to-read reference sheets for both students and

summary, Peckett and Munday: 204-43 (39 pages), Rouse and Mahoney has no summary, Ruck has no summary, Saffire and Freis: 241-48 (8 oversized pages), Shelmerdine: 285-306 (28 pages), Taylor part 2: 295-307 (13 pages). In fairness, these summaries are designed more as reference pages to consult than brief overviews, but the absence in these books of any concise snapshot of the construction of Greek verbs is telling.

2 Participles are not included, since they use adjective endings. A clean, printable copy of the Master List is available on the *TCL* website, along with a copy of the Master List with the highlighted material blanked out, so teachers and students can practice filling in the blanks.

teachers, which could, for example, be printed as the front and back of a single sheet for continual reference and testing.

Embedded in these two pages are patterns and basic ideas about Greek verbs which subsequent sections of this article will explicate. Of fundamental importance is that this Master List is not just for regular -ω verbs, but for Greek verbs in general. This article's first strong claim is that this Master List provides a much-needed core structure for beginning students, one which will also enable them to progress in their recognition and comprehension of *all* Greek verb forms in an efficient and productive manner.

The following seven sections elaborate on the reasoning behind this structure, pedagogical consequences of using it, and recommendations for integrating it into beginning Greek instruction.

THE IMPORTANCE OF TEACHING SOUND COMBINATIONS

The Master List mostly avoids specifying spelling changes that result from combining consonants or contracting vowels when one of the elements is part of the stem. Thus the second person singular personal ending for primary tenses in the middle voice is given simply as -σαι, without noting that in many environments this ending contracts with the stem vowel to yield -η. Nor is there any mention of verbs whose stems happen to end in -α, -ε or -o ("contract" verbs). Likewise these pages do not show how combining -σ- with the verb stem (e.g., in the future tense) affects the pronunciation and spelling of individual forms.

Beginning students must, of course, learn such sound combinations. There are three categories of sound combination with which any reader of ancient Greek must be confident in order to recognize verb forms consistently:[3]

- combining sigma with adjacent consonants, such as labials (yielding ψ, e.g., γράφω → γράψω), velars (yielding ξ, e.g., λέγω → λέξω) and dentals (which disappear, e.g., πείθω → πείσω), and the reduction of -σ- itself (e.g., μένω → μενέω)
- lengthening and shortening of basic vowel sounds (α/η, ε/η, o/ω)
- contracting α, ε and o with each other.

The Master List omits this information, although it is necessary for beginning students, because none of the above phonological changes are bound intrinsically to verbs in general or in any specific way. Very often beginning students spend the most time studying vowel contraction when they meet "contract" verbs, but these rules of contraction apply widely in the language beyond verb forms (e.g., in nouns and adjectives). It is too easy for students to associate vowel contraction with a handful of verbs and not recognize that it applies to nouns and adjectives as well. At the other extreme, some specific verb forms do contract in ways not fully predictable from just the general rules above (e.g., an -α contract verb loses the iota in the present infinitive active), but such instances are in fact exceptions, and it is better for these sporadic instances to appear as such rather than have no overarching pattern to orient students.

Recommendations

Students in beginning Greek should begin practicing the above types of sound combinations as early as possible, preferably with their first words in Greek, and as quickly as possible after they learn the alphabet. Students do not need to know the meaning or grammatical identity of a word to practice manipulating sounds. Indeed, they should not link combining sounds with a

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3 For more on sound combinations in beginning Greek, see Major "On Not Teaching Greek," McClain, Wallace, and Probert.

word's morphological or semantic identity. As they learn verbs and other parts of speech, however, instances of sound combination should provide an opportunity to reinforce and provide repeated practice with this skill. Verb forms provide a wealth of opportunities for all three types. Sigmatic future and sigmatic aorist forms illustrate the rules for combinations with sigma, for example. The singular and plural forms of the most common -μι verbs illustrate shifts in the lengths of vowels. Contract verbs illustrate the most common vowel contractions. Greek textbooks make varying degrees of reference to sound combinations as they introduce verb forms, but it is always possible to highlight and practice these combinations.

The Importance of Distinguishing Primary and Secondary Endings

As the Master List illustrates graphically, the indicative mood in Greek makes a fundamental distinction between primary and secondary tenses. While Greek textbooks sometimes mention the different primary and secondary endings, standard charts summarizing the paradigms almost never use the distinction as an organizing principle. Consequently, most students do not really become aware of the distinction or its importance until they encounter it as a principle of complex syntax, i.e., in the sequence of tenses and moods. By then, the primary/secondary distinction is just one more rule that students have to learn, and they will likely miss the help that this formal distinction can provide.

If, however, students learn early to look for the distinction between primary and secondary endings, they will have a powerful tool for determining the tense of indicative verbs. In essence, primary and secondary endings can act as a kind of flow chart for analyzing tense. If, for example, a student sees a distinctly primary ending, the tense is probably present. It might be future, of course, but the stem and the presence of a sigma will confirm a future tense. The tense might also be perfect, but perfect tenses usually announce themselves even more clearly with reduplication and different stems than by their primary endings.[4] There is, as well, a useful negative principle in the distinction between primary and secondary endings. As soon as a student recognizes a primary ending on an indicative verb, the imperfect, aorist, and pluperfect tenses need not even be considered. Likewise, if the ending is secondary, then the verb cannot be present, future, or perfect.

When the primary/secondary distinction is coupled with knowledge of tense frequency and stem differences, this method of 'deducing' tense is even more precise. Such an approach, moreover, is especially important when students are confronted with new and unfamiliar verb forms. If, for example, the verb's ending is primary, it is most likely present tense. If its ending is secondary, the verb is likely to be aorist or imperfect.[5] If the verb with secondary endings has the stem of the first principal part, then it must be imperfect. If, however, the verb with secondary endings has a stem different from the first principal part, then it is probably aorist.

If the primary/secondary distinction is introduced early in elementary Greek, it need not appear as yet another arcane and burdensome rule. Students, moreover, will be motivated to learn the distinction when they realize that it will help them more easily identify verb tenses. Finally, students need not learn all at once the many grammatical implications of primary and secondary tenses; instead, they need only grasp some basic principles about what primary and secondary communicate:

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4 This is not to claim historical or generative relationship for this pattern, only to suggest its pedagogical value. For the patterns of these endings in a scientifically and historically grounded linguistic context, see Weiss.

5 Mahoney, analyzing Greek texts in the Perseus database, calculates that 7/8 of all verb forms in Greek can be accounted for by the present (46.7%), aorist (28.0%), and imperfect (13.2%).

- Greek verbs by default use primary personal endings and refer to an indeterminate present. The -σ- marker attached to the stem, not a change in personal ending, indicates that a verb form refers to the future. Duplicating the initial sound of the stem signals perfect aspect. Beyond this, with the minor variations noted for the perfect active, all verbs use the three sets of endings in the upper register of the first page of the Master List.[6]

- To designate action in the past, Greek switches to the secondary by using a distinct set of personal endings. In Classical Attic and its descendants, verbs in the secondary nearly always mark the forms twice, once with the personal ending and additionally by adding an augment to the beginning of the stem.[7] As with primary forms, markers attached to or embedded in the stem designate tenses, but, with the variations allowed for the sigmatic aorist, all verbs use the same three sets of endings (the lower register of the Master List) for all secondary forms.

Recommendations

Students in beginning Greek should learn the distinction between primary and secondary from the first set of personal endings they encounter and consistently observe it. In practice this can be as basic and straightforward as organizing the arrangement of verb forms and endings accordingly (as on the Master List). A stronger recommendation would have students learn all three sets of primary endings and then all the three sets of secondary endings, thus structurally reinforcing the division. Since most textbooks bounce between primary and secondary tenses, this recommendation may prove difficult to implement.[8]

TEACHING THE VOICE OF GREEK VERBS

As with primary and secondary endings, the selection of voice is fundamental to generating the form of a Greek verb. The Master List organizes endings according to only two of the three canonical voices in Greek: the active and middle. It makes only brief mention of the passive (with reference to the secondary endings of the -μι conjugation, which are used for the "intransitive/passive aorist").

This arrangement reflects the historical development of the structure of Greek verbs.[9] The active voice is the default "unmarked" voice in Greek, while the middle voice is the marked voice. The distinct set of personal endings is the morphological marker. Semantically, the marking indicates that the subject remains involved in the action. The passive voice, or rather the passive construction (in which the grammatical subject is specifically the recipient of the action), is an offshoot of the middle voice, and the full passive construction developed over time. When it comes to the pedagogy of beginning Greek, this means students can legitimately learn active and middle forms and constructions initially, and then learn passive syntax later. There are distinct and decisive advantages to delaying the teaching of passive constructions until students are already comfortable with other, more common and straightforward types of sentences.

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6 The blending of the perfect active with secondary -μι endings in δίδωμι, τίθημι, and ἵημι will be addressed below.

7 Students who recognize canonical forms as doubly marked will be less troubled when they meet texts, such as Homer, where secondary verbs use only one marker, the secondary personal endings.

8 Textbooks often follow principal parts to organize tenses; on this problem see below.

9 See Allan for a detailed presentation of the model summarized here.

First, even though English formally has a passive voice, there is nothing unusual about students having a shaky grasp of its meaning and little ability to form it. It is not uncommon for adult English speakers to have difficulty discerning the difference in meaning between "is driving" and "is driven," for example, or "has driven" and "has been driven," to say nothing of being able to transform English sentences from one voice to the other. That passive constructions are deprecated by those who teach formal English means students are even less likely to have practice comprehending and generating such constructions. The point of this observation is not to lament the situation or call for changes, but to realize the consequences for many beginning Greek students.

If beginning students are introduced to "middle/passive" endings and sentences simultaneously, then they are obliged to engage in three substantive tasks in the same lesson: (1) learning a new set of personal endings, (2) comprehending a "middle" voice which does not correspond easily to any category in English, and (3) dealing with Greek passive constructions when they have only imperfect or unsure competence in such constructions in English. Passive constructions in Greek then become even less intuitive as only one tense, the aorist, formally distinguishes middle and passive uses, and the "active" appearance of "aorist passive" endings does not help recognition, especially when students may meet these forms only rarely. To be sure, to become confident, independent readers of Greek, students must attain a mature skill level in each of these tasks, but there is no need or advantage to piling them together and delivering them at once.

Recommendations

First, introduce middle endings with high-frequency verbs that have clear meanings. Deponent verbs like βούλομαι, δύναμαι and ἔρχομαι have simple definitions; can generate straightforward, meaningful sentences; and are high-frequency verbs. Furthermore, verbs like βούλομαι and δύναμαι also generate complementary infinitive constructions and so allow for further constructions with this additional mood.

Second, once students are familiar and comfortable with the formation of verbs with middle endings, begin using verbs which lend themselves to illustrating various dimensions of the middle voice. Teachers and textbooks generally already use a variety of means to acclimate beginning students to the middle voice, of course, and our recommendation is not to supplant these techniques but encourage a careful and gradual process. Even at the advanced level, the middle voice does not represent a single meaning or a series of discreet uses, but a range along a continuum. Purely by way of examples that we have found useful, we offer the following sequence which can lead students from the introduction of middle personal endings to passive constructions. The "intransitive" meaning of the middle can be illustrated simply and logically with a verb like παύω, "I stop," where the middle παύομαι means "I stop (and as middle subject, participate in the stopping)," which in English is rendered simply "I stop." A verb like μάχομαι can seem to be logically in the middle voice all the time, since the subject is always participating in the fighting and engaged in the continuing process of the fighting. Thus it is "deponent" in the sense that it seems inherently in the middle voice all the time by virtue of its meaning. The standard model verb λύω can also logically explain why some verbs require different English verbs to translate them in the middle voice. The active sentence λύω τοὺς ἄνδρας means "I set the men free," but λύομαι τοὺς ἄνδρας means "I set the men free (and get something out of the process)," or, more specifically, "I ransom the men" (the middle voice indicates that I get the ransom out of the process). At this point, examples can plant the seeds for passive constructions. For example, ὁ Σωκράτης τύπτει τὸν λίθον means "Socrates hits the rock," but ὁ Σωκράτης τύπτεται τῷ λίθῳ means "Socrates gets hit with a

rock" (i.e., he participates in the later part of the action), which is a short distance to "Socrates is hit by a rock." Still, full-fledged passive constructions with personal agents should be delayed (see final recommendation below).

Third, introduce the "aorist passive" forms with intransitive examples. There is nothing deceptive or harmful in doing so. The intransitive use of these forms is venerable, persistent and productive in the language. Again βούλομαι and δύναμαι are excellent models, verbs with aorist "passive" forms (ἐβουλήθην and ἐδυνήθην) but which make sense easily, and only, as intransitive. As a bonus, two similar forms often presented as irregular and troublesome can be presented at this point as regular and logical: the athematic aorist of βαίνω (ἔβην, again logically intransitive) and the intransitive strong (2ⁿᵈ) aorist of ἵστημι (ἔστην). The key point, however, as with middle endings, is to allow students to learn and become comfortable with the forms and without having to grapple with a complex new construction (not to mention issues of tense and aspect).

Finally, only after students have built up their confidence with the above morphology, introduce full passive constructions. Now students can learn passive sentences as a matter of which forms to use, along with how to express agency, etc. This falls under the umbrella recommendation of teaching syntactical issues separately from morphological ones. Textbooks regularly proceed this way with dependent clauses (purpose clauses coming only after presenting the subjunctive and optative, for example). The same procedure makes sense for passive sentences. It also structurally reinforces the difference between middle, intransitive, and passive use of verbs.

INTEGRATING -μι VERBS INTO BEGINNING GREEK

Perhaps no component of the Greek verbal system is presented in so problematic a way by textbooks as the -μι conjugation. The first difficulty is that the -μι verb family often appears only very late in beginning Greek or is even relegated to some place in the curriculum beyond the beginning sequence. Delaying -μι verbs so long, however, creates numerous problems for students. The most obvious is that such a delay withholds the explanation of an essential and high-frequency feature of the language. The verbs εἰμί, εἶμι, φημί, δίδωμι, τίθημι, ἵημι, ἵστημι, and their compounds are to be found on page after page of almost any text students are likely to read. The earlier students learn -μι verbs, the sooner normal texts with their frequent -μι verb forms become accessible; and the earlier -μι verbs are presented, the more time students have to assimilate their forms. Late introduction also leads to misapprehension. If for months students have known only -ω verbs, when -μι verbs finally appear, they are bound to seem difficult and "irregular." The new "difficult" verbs are made all the more daunting because students are usually confronted with them in more than one tense and sometimes in all three distinctive tenses (present, imperfect and aorist) and two voices.

Early introduction of -μι verbs avoids such pitfalls. If -μι verbs are presented in tandem with -ω verbs, then students avoid the mistaken impression that -μι verbs are somehow irregular. Instead, students simply learn that there are two families of Greek verb, each with its own slightly different set of endings, and each with its own system of connecting stem and endings. Another advantage of early introduction is that the tenses of -μι verbs can be introduced gradually (as are the tenses of -ω verbs), instead of all at once.

The Master List illustrates graphically the basic pattern of personal endings for -μι verbs (a simple pattern often obscured or ignored in the concatenation of forms presented in textbooks). Moreover, another benefit from early introduction and thorough integration of -μι verbs emerges: the endings of the -μι conjugation are in fact very close to and interwoven with the forms of -ω

verbs. The secondary endings active are exactly those used in the aorist "passive." Indeed, the personal endings in the active voice of the -ω and -μι conjugations could conceivably be taught as refractions of the same set of endings, and there is historical validity to presenting them as such.[10] It is primarily as a practical matter that they are set out as different here, the endings listed being given in a form which makes them maximally recognizable to students in the words they will see.[11] Finally, the Master List not only integrates and maintains perspective on -μι verbs, in that their active endings are interwoven with -ω verbs, but in the middle voice, it is immediately apparent that the two conjugations use the same endings.

Introducing -μι verbs concurrently with -ω verbs (while maintaining the distinction between primary and secondary, active and middle) provides a coherent structure for students to acquire and grow confident with -μι verbs, so that they can focus on patterns specific to verbs in this conjugation and true irregularities when they occur. Classes and patterns within the -μι conjugation also help. The -μι conjugation falls into two classes, and each benefit from the structure of the Master List and an early, progressive introduction of their forms:

- The -νυμι class (e.g., δείκνυμι) includes some of the most regular verbs in all of Greek, provided they are analyzed as regular -μι verbs rather than as deviations from -ω verbs. These verbs are athematic in the present and imperfect tenses only and they deploy the endings on the Master List with almost no variation or contraction.
- The root class includes the verbs most notoriously associated with the -μι conjugation: δίδωμι, τίθημι, ἵστημι, ἵημι, φημί, εἶμι, and εἰμί. The deponent verbs δύναμαι and ἐπίσταμαι also belong to the root class. Other verbs in this class are less common and rarely highlighted in beginning textbooks (e.g., ἧμαι, κεῖμαι, ὄλλυμι, πίμπλημι), but once again, if students are comfortable with the -μι conjugation generally, the appearance of these verbs will not be problematic. Outside of rare differences in the perfect system (of which only the inflection of οἶδα is of consequence for beginning students), verbs of the root class of the -μι conjugation are distinctive in at most three areas: the present active, the imperfect active and the aorist active. Highlighting patterns among these most volatile verbs will be helpful here (and for beginning students):
  - In the <u>present</u> active, the stems of most root class -μι verbs (δίδωμι, τίθημι, ἵστημι, ἵημι, φημί, εἶμι) have long vowels in the singular and short ones in the plural (δίδωμι/δίδομεν, τίθημι/τίθεμεν, ἵστημι/ἵσταμεν, ἵημι/ἵεμεν, φημί/φαμέν, εἶμι/ἵμεν). The contractions in ἵστημι and ἵημι are straightforward (ἱστάασι → ἱστᾶσι, ἱέασι → ἱᾶσι). More importantly, all these verbs consistently use the standard primary endings on the Master List.

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10 In PIE, the personal endings of thematic verbs differed from those of athematic verbs only in the primary active singular. See Rau 184-85 for a quick overview.

11 Consequently, the Master List does not highlight the presence or absence of thematic vowels. In understanding the construction of thematic and athematic vowels, beginning students need to understand what the thematic vowel is, even though its presence, absence and form carry virtually no semantic value. Since the thematic vowel is elided with primary active endings of thematic verbs, it makes more sense to present them in their standard, readily recognizable form on the chart. For -μι verbs, by contrast, with their shifting final stem vowels, the pattern to be emphasized is the stability of the personal endings. In the middle voice, the personal endings are more recognizable and stable for all verbs, whether they have a thematic vowel or not. Above all, the presence or absence of a thematic vowel should not, and in our experience does not, usually distract a student, so deploying it consistently in the future tense, for example, is easy enough, since the pattern is a common one and there is an additional tense marker (-σ-).

    o The <u>imperfect</u> active forms provide a good example of the value of not losing sight of the pattern for the individual variations. Again the stems of most root class verbs have long vowels in the singular and short ones in the plural, and while δίδωμι and ἵημι use variable long sounds, they are ones familiar from vowel contraction (ου, ει). More importantly, verbs of this class consistently use the standard secondary endings on the Master List.

    o In the <u>aorist</u> active, it is again important not to lose sight of the rule for the exceptions. Again there is the distinction between singular and plural forms, when three prominent verbs (δίδωμι, τίθημι, ἵημι) utilize -κ- in their singular forms (-κα, -κας, -κε). Except for these three, however, verbs of the -μι conjugation follow the regular rules of the Master List. Some have thematic (weak/1ˢᵗ) aorists: ἵστημι, φημί, all verbs of the -νυμι class. Most are athematic, but stable and regular: ἔστην (from ἵστημι), as well as common verbs that follow the -μι conjugation in the aorist ἑάλων (from ἁλίσκομαι), ἔβην (from βαίνω), ἔγνων (from γιγνώσκω) and so on. If students associate these personal endings with their place on the Master List, then the -μι conjugation, the sigmatic aorist, intransitive/passive aorist, and even the pluperfect active all reinforce each other.

Recommendations

Introduce -μι verbs and their conjugation early and in tandem with -ω verbs. Although it seems counter-intuitive, making a -μι verb a beginning student's first verb provides a number of positive pedagogical advantages. For the complete novice, the present active of a verb like δίδωμι is actually easier to understand and analyze than -ω verbs. δίδωμι is also a great boon when cases are introduced, since it takes both direct and indirect objects. Likewise, the verbs τίθημι and ἵημι are also useful since they easily motivate direct objects with various prepositions. The problem with such early presentation of -μι verbs is that it requires major revision of current texts and readings. The change, however, is worth the effort since ultimately it is not just about -μι verbs but about giving our students the most efficient and user-friendly introduction to the language that we can manage.

Ways to Introduce Moods after the Indicative

Following the organization of verbs as presented on the Master List for the indicative pays dividends in the presentation of the other moods. With all these moods, the "lack of augment" in secondary tenses is less confusing, because the Master List indicates the specific category (secondary tenses) for which to add the augment rather than trying to keep track of when it "drops."[12]

• The infinitive essentially has a single ending for each of the three columns (-ω verbs, -μι verbs, middle voice), with the contractions and exceptions noted.

• The imperative uses a small number of new endings (3ʳᵈ person endings are included on the Master List, but there is no great harm in delaying them to an intermediate or advanced level).

• The subjunctive uses primary endings with lengthened vowels.[13]

• The optative is marked by adding an iota before the (secondary) personal endings. The -ιη- and assorted variations are all different ways to make pronounceable the

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12 Cf. on principal parts below.
13 Cf. sound combinations above.

difficult combinations that result. Understanding this process is easier than trying to remember charts with alternative forms. This was an area where native speakers opted for different solutions, so it is legitimate for beginning students to understand the process and grow to observe and learn what individual dialects and authors do to solve the problem.[14] If students have had practice with the phonology and morphology of the indicative, this will be a familiar process.

Teaching and Learning Verb Stems

The discussion so far, and the bulk of the Master List, concentrates on the personal endings. The changes that result from the combination of these endings with tense and aspect markers (and those resulting from the addition of an augment, where appropriate) are matters of general phonology and orthography and thus here considered distinct from the morphology of the verb form itself (cf. section 2 above). There is, of course, another part of the verb which can undergo changes, ones that can further confuse and frustrate students and teachers alike: the stem.

Textbooks often conflate, to the detriment of clarity and consistency, two different meanings of the "stem" of a verb. There is the "stem" of a Greek verb in general, to which prefixes and suffixes are added to signal tense and aspect (with additional phonological changes sometimes resulting). But speaking of a "future stem" or other tense stem can lead to confusion, since it really refers to the basic verb stem with an additional marker (this is made even more confusing when students must further distinguish stems with and without the augment marking the secondary tenses of the indicative)[15].

The Master List integrates much of what are often termed "stem changes" by giving basic information about tense/aspect markers (future, aorist, perfect). Embedded in the brief statement about verb stems is the fact that the variations of stem formation of Greek verbs fall into three patterns:

- The stem appears in the present system and takes on additions to designate other tenses/aspects (e.g., λυ- of λύω). This is the most common pattern.
- The stem appears in the aorist and takes on additions to designate other tenses/aspects, including those of the present system. Most verbs with a strong (2ⁿᵈ) aorist follow this pattern (e.g., εὖρον → εὑρίσκω).

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14 For Greek speakers' struggle with the optative mood at later points in the history of the language, see Horrocks 82, 102-03, 130, 138, 141, 233-34, 240.

15 The terminology is tricky here and has shifted over the years. For example, Smyth distinguishes "verb-stems" or "themes" from "tense-stems" (367). Linguists use the term "root" distinctly from the various "tense stems," but textbooks rarely make use of or acknowledge the distinction: *Athenaze*, for example, uses the terms "future stem" and "aorist stem" but not "present stem" and implies that the present stem is the same as the root, even in cases when this is manifestly wrong.

The carefully worded but misleading presentation on pages 176-7 of *Athenaze* is typical of the resulting confusion as found in most textbooks. Here are presented the "Present" and "Aorist Stem" of three verbs. One of them (λύω), as the text rightly points out, adds a suffix to form its aorist stem. For the Thematic 2nd Aorist, the text says only vaguely, "the stem is changed," which, while not quite wrong, is not very helpful. The graphic presentation of the stems is outright distortion. A reader reasonably infers that the "Present" of λείπω generates the "Aorist Stem" -λιπ-, when in fact the reverse is happening. By the time readers reach the bottom of page 177, they are very likely to conclude that somehow the "Present" γίγνομαι changes into the "Aorist Stem" -γεν-. Combined with the admonition on page 155 (which sports the example of φέρω, οἴσω, ἤνεγκον, without acknowledging this is suppletion, not stem change), brute memorization of nonsensical principal parts seems to be the only option. More properly, of course, the root is -γεν-, and the present stem has a reduplication (γιγν-). Even a reader who tries to sort out roots and patterns will be thwarted by the mishmash of verbs presented on page 181.

- The verb uses two or more stems which are not phonologically or morphologically derived from each other; that is, they undergo suppletion. This is a phenomenon familiar in English. The verb "go," for example, has a perfect ("gone") but borrows the past tense of another verb for its simple past ("went" from "wend"). Similarly, Greek uses ἔρχομαι for "come, go" in the present system but ἦλθον in the aorist.[16]

Unfortunately, beginning Greek textbooks tend to treat verbs as "regular" if they build on their present stem and irregular if they do anything else. This idea leads to the impression that there are an overwhelming number of irregularities and variations in stem creation. Most verbs with a strong (2nd) aorist, for example, are easier to learn and remember if the student realizes that the aorist shows the basic stem and the other tenses, including the present, have suffixes (e.g., it is easier to remember εὑρίσκω, εὑρήσω, εὗρον "find" as εὑρ-ον + -ισκ- → εὑρίσκω and εὑρ-ον + -σ- → εὑρήσω). Furthermore, failure to acknowledge suppletion means students will grope to find phonological patterns in stem substitutions when there are none to be found. It is necessary to learn a few verbs whose stem displays complex variations (e.g. ἔχω) but this is not the same as true suppletion (e.g., ὁράω and εἶδον). It is in the presentation of principal parts, of course, that these distinctions can be clarified or obscured, which will be the subject of the final section.

TEACHING PRINCIPAL PARTS (AND WHEN NOT TO)

Speakers of English learn a straightforward pattern for generating the tenses of verbs (e.g., "walk" + "-ed" → "walked") and a three-part system of principal parts for verbs that do not follow the dominant pattern (e.g., "drive, drove, driven"). It is an efficient system, in that the three forms provide virtually every possible form someone will hear or see. Only a minor addition like the -s of the 3rd person singular present active or -ing to form the participle, the addition of auxiliary verbs, and the occasional irregular verb (e.g, "be") provide even the slightest variation. Moreover, there is a productive progression to the three parts. The first part provides the necessary stem to generate the present tenses (drive, drives, driving, etc). The second part provides the simple past (drove) and the third the participle necessary for more complex constructions such as the perfect and passive ("have been driven" etc).

Canonically a Greek verb has twice as many principal parts, but even these can seem not to be enough to know a verb thoroughly. Some verbs have alternate versions of one or more parts. Some forms of verbs are still difficult to recognize even in comparison to their principal parts (e.g., the present stem when it is augmented to form the imperfect indicative and the unaugmented aorist). Many verbs lack one or more parts. Scarcely any verb seems to be predictable through all six parts. These issues alone can bring beginning students to despair. Worse yet, the progression of the parts does not seem logical to the beginner. This article has argued that the primary/secondary tense distinction, conjugation, and voice are the better organizing principles of verb formation for beginning students, but principal parts do not consistently proceed along any of these axes: the first part gives the stem for a primary and secondary tense (active, or middle if the verb is deponent); the second for a primary tense (often deponent, even if the first part is not); the third a secondary tense (again active, or middle if the verb is deponent); the fourth a strictly active primary tense; the fifth the same primary tense only in the middle; and then the sixth is back to a secondary tense— the aorist—supposedly just in the passive (even if a particular verb can be only intransitive). As if to ensure any stability and patterns remain as difficult as possible to discern and learn, reference

16 See Kölligan for a detailed analysis of suppletion.

charts and textbooks list verbs in alphabetical order, so that patterns of phonological (and related orthographical) changes and true irregularities are heaped together. Nothing in this arrangement facilitates understanding and remembering the forms of a verb in a productive way for the novice.

The purpose of an alphabetical listing, of course, is to facilitate looking up a verb, and herein lies the true purpose of such lists and charts. They are reference charts to consult to check the exact form among the various possible permutations of a Greek verb. To a reader already comfortable with the core rules for generating verb forms, the principal parts are logical and helpful. Let us imagine a reader who is comfortable with the rules of sound combination (listed above) and with the information on the Master List. Such a reader can consult a list of principal parts and see that:

1. The first principal part most often gives the stem of the verb and indicates if it is deponent.
2. The second principal part indicates whether the future is deponent (an aspect not predictable from the first part) and perhaps whether the addition of -σ- leads to any unpredictable irregularity or if there is some more substantial difference in the stem (e.g., τίκτω → τέξομαι).
3. The third principal part tells whether the verb has a sigmatic or strong (2nd) aorist or some more substantial change in the stem.
4. The fourth principal part gives the perfect active, since verbs display minor irregularities in reduplication and adding -κ-, and also since not all verbs are attested in this tense.
5. The fifth principal part gives the perfect middle, although it is comparatively rare (but the proposed reader is advanced enough to meet examples), since verbs display minor irregularities in its formation, and also since not all verbs are attested in this form.
6. The sixth principal part gives the aorist "passive," again because some verbs have a stem that shows variation (e.g., λυω has a long stem vowel in the present, future, and aorist active, but not in perfect or the aorist passive), some display minor variations in adding the -θη-/-η- marker (e.g., τρίβω has the alternate formations ἐτρίφθην and ἐτρίβην, each logical in its way), and not all verbs are attested in this form.

For beginning students on the path to reach the level where they can use this sort of information to improve their reading (or perhaps even composing), memorizing principal parts is legitimately overwhelming and provides limited returns. What is pedagogically sound for beginning students to learn and memorize, then? The present and aorist forms are essential. These are two of the most common tenses, the true stem of the verb is almost always evident in one of the two parts, and, while the relationship between the two parts is usually evident, it is not possible to predict one from the other consistently. Thus these two forms alone deserve commitment to memory and pay dividends for the student. The future is a comparatively rare tense, but the traditional ordering of parts makes it, on balance, prudent for beginning students to learn. The stem of the verb should be evident from these three parts, as well as the verb's deponency, if any. Thus these three parts usually give a good sense of verb and its stem progression. The last three principal parts, because they are less common forms and less often display serious morphological irregularity, are safe to delay until students are at least at the intermediate level (recall that beginning students should know how the perfect and aorist passive forms are generated; we recommend delaying only the specific memorization of the principal parts, not the tenses and forms in general). Doing so means that, for beginning students, Greek verbs effectively have the same number of principal as English verbs, albeit with more variation and complexity in their formation.

Recommendations

Beginning students should concentrate on mastering the first three principal parts of Greek verbs. It is critical that verbs be gathered into groups that reinforce the patterns and predictability of these parts. Some textbooks include information about such patterns and reinforce them structurally, while many do not. It is always possible, however, for teachers and students to organize, learn and review verbs in groups which assist retention.[17] Such groups include:

- Verbs with stems ending in a labial (e.g., βλέπω) or equivalent (e.g., βλάπτω), since they will tend to have -ψ- in their future and aorist parts.
- Verbs with stems ending in a dental (e.g., πείθω, δικάζω), since they will tend to have -σ- in their future and aorist parts.
- Verbs with stems ending in a velar (e.g., διώκω) or equivalent (e.g., πράττω), since they will tend to have -ξ- in their future and aorist parts.
- Verbs with stems ending in -α, -ε or -ο, since they will tend to show a lengthened vowel in their future and aorist parts.
- Verbs with stems ending in a liquid, since -σ cannot be added directly to these stems, and they mostly form their future and aorist tenses in similar ways (e.g., contract futures).
- Verbs which show their stem in the aorist and augment it to form the present and future. These are mostly verbs with strong (2nd) aorists and most can also appear in one of the above groups, but there is no harm in repeating a verb in multiple groups.
- Verbs which belong to the -μι conjugation, but those of the root class and the -νυμι class should be kept distinct. A number of these can also appear in one of the above groups, but again there is no harm in repeating a verb in multiple groups.
- Verbs whose parts show radical stem change or suppletion. These can and should be kept to a minimum and the number can be easily kept under ten. High-frequency verbs in this category include:

  αἱρέω αἱρήσω εἷλον take (mid: choose)
        with ἁλίσκομαι ἁλώσομαι ἑάλων be taken (= passive of αἱρέω)
  ἀποθνήσκω ἀποθανοῦμαι ἀπέθανον die (cf. θνήσκω/θνήσκω).
  ἔρχομαι εἶμι ἦλθον come, go
  ἐσθίω ἔδομαι ἔφαγον eat
  ἔχω ἕξω/σχήσω ἔσχον have, hold (stems are variations on σεχ-)
  πάσχω πείσομαι ἔπαθον suffer, experience
  τρέχω δραμοῦμαι ἔδραμον run
  φέρω οἴσω ἤνεγκα carry

Suppletion easily spills over into matters of semantics and word usage. In at least three areas, the suppletion merits discussion and practice rather than simple memorization of distinct principal parts.[18]

- It is common to give the future and aorist of λέγω (and/or φημί) as ἐρῶ and εἶπον, but this has little explanatory power. Verbs of speaking and saying deserve fuller treatment than a quirky presentation of principal parts, not least because this set of verbs

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17 For some vocabulary sheets organized along these lines, visit www.dramata.com. For the theory and application of the vocabulary selected for these sheets, see Major "Core Vocabulary" and Clark.

18 For very brief preliminary sheets laying out verb forms in these categories, visit www.dramata.com.

      is so common. Such a survey is also valuable for understanding direct and indirect statement.

- The interrelated verbs about seeing and knowing (ὁράω ὄψομαι εἶδον; cf. οἶδα) deserve discussion in their own right (especially in the context of sense perception in general and the constructions such verbs engender). Such discussion will help students to memorize the discordant principal parts and eccentricities of this group of roots and verbs.
- Unlike the two areas above, another area of suppletion tends to be ignored in beginning textbooks (and in the presentation of principal parts), although it is pervasive in the language. Even apart from the technical controversies in philosophical texts or subtle distinctions, it is beneficial to note both the overlapping and supplemental uses of verbs of being, especially γίγνομαι and εἰμί.

Conclusion

      In sum, we propose that teaching and learning Greek verbs be reformed in three areas in order to improve comprehension and reduce frustration:

- Students should begin working with sound combinations before beginning Greek verbs, and every set of forms they learn should be an opportunity to reinforce the rules of sound combination.
- Students should build their understanding of the architecture of Greek verbs as presented on the Master List (based on primary/secondary tense, active/middle voice, and the thorough integration of -μι verbs).
- Students should concentrate on an abbreviated but well-organized set of principal parts.

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GREEK VERB ENDINGS for the INDICATIVE

PRIMARY PERSONAL ENDINGS

-ω conjugation active

	Singular	Plural
1.	-ω	-ομεν
2.	-εις	-ετε
3.	-ει	-ουσι

- = present tense for -ω conjugation
- -σ- + these endings = future tense of all verbs
- for the perfect of all verbs, use these endings, but -(κ)α- replaces the initial vowel(s)

3rd singular ending -κε

-μι conjugation active

	Singular	Plural
1.	-μι	-μεν
2.	-ς	-τε
3.	-σι	-ᾱσι

- = present tense for -μι conjugation

middle voice

	Singular	Plural
1.	-μαι	-μεθα
2.	-σαι	-σθε
3.	-ται	-νται

- = middle primary tense endings of all verbs
- The future tense adds -σ- before these endings.
- The perfect middle never uses the -(κ)α- marker.

SECONDARY PERSONAL ENDINGS

-ω conjugation active

	Singular	Plural
1.	-ον	-ομεν
2.	-ες	-ετε
3.	-ε	-ον

- = imperfect tense for -ω conjugation
- = strong (2nd) aorist tense for -ω conjugation
- for the weak (1st) aorist, use these endings, but -σα- replaces the initial vowel

1st singular ending -σα
3rd singular ending -σε

-μι conjugation active

	Singular	Plural
1.	-ν	-μεν
2.	-ς	-τε
3.	-	-σαν

- = imperfect tense for -μι conjugation
- = aorist tense for -μι conjugation
- intransitive/passive aorist = -(θ)η- + these endings
- pluperfect = (sg) -κη -κης -κει, (pl) ε- + these endings

middle voice

	Singular	Plural
1.	-μην	-μεθα
2.	-σο	-σθε
3.	-το	-ντο

- = middle secondary tense endings of all verbs
- The pluperfect middle never uses the -(κ)α- marker.

STEMS

Most verbs build on their present stem, but some verbs build on their aorist stem.
To mark the perfect or pluperfect, duplicate the initial sound of the stem.
To mark secondary tenses, add an augment to the beginning of the stem.

INFINITIVE
- active:
  - Present and Aorist
    - -ω conjugation: -ειν
    - -μι conjugation: -ναι
    - sigmatic aorist: -σαι
  - Future
    - All verbs add -σ- + -ειν *(from -ω conjugation)*.
  - Perfect
    - All verbs add -(κ)α- + -ναι → -(κ)εναι *(from -μι conjugation)*.
- middle: -σθαι
  - All verbs in all tenses use -σθαι to designate the infinitive in the middle voice.

IMPERATIVE
- 2nd person: same endings as indicative
  - except 2nd singular active : -ε or -θι
  - except sigmatic aorist: 2nd singular: -ον (active) -σαι (middle)
- 3rd person: singular: -τω (active) -σθω (middle)
  plural: -ντων (active) -σθων (middle)

SUBJUNCTIVE
- All verbs form the subjunctive mood with augmented (ω/η) primary endings.
  - active: -ω -ῃς -ῃ -ωμεν -ητε -ωσι *(augmented -ω conjugation active endings)*.
  - middle: -ωμαι -ησαι -ηται -ωμεθα -ησθε -ωνται *(augmented primary endings)*.

OPTATIVE
- All verbs form the optative mood by adding an -ι- before secondary personal endings.
  - active: -μι conjugation secondary endings
    - *(except -ω verbs use -μι for the 1st singular and 3rd plural -σαν often reduces to -ν)*
- middle: secondary endings

GREEK VERB ENDINGS for the INDICATIVE

PRIMARY PERSONAL ENDINGS

-ω conjugation active

	Singular	Plural
1.	-	-
2.	-	-
3.	-	-

- = present tense for -ω conjugation
- -σ- + these endings = future tense of all verbs
- for the perfect of all verbs, use these endings, but -(κ)α- replaces the initial vowel(s)

3rd singular ending -κε

-μι conjugation active

	Singular	Plural
1.	-	-
2.	-	-
3.	-	-

- = present tense for -μι conjugation

middle voice

	Singular	Plural
1.	-	-
2.	-	-
3.	-	-

- = middle primary tense endings of all verbs
- The future tense adds -σ- before these endings.
- The perfect middle never uses the -(κ)α- marker.

SECONDARY PERSONAL ENDINGS

-ω conjugation active

	Singular	Plural
1.	-	-
2.	-	-
3.	-	-

- = imperfect tense for -ω conjugation
- = strong (2nd) aorist tense for -ω conjugation
- for the weak (1st) aorist, use these endings, but -σα- replaces the initial vowel

1st singular ending -σα

3rd singular ending -σε

-μι conjugation active

	Singular	Plural
1.	-	-
2.	-	-
3.	-	-

- = imperfect tense for -μι conjugation
- = aorist tense for -μι conjugation
- intransitive/passive aorist = -(θ)η- + these endings
- pluperfect = (sg) -κη -κης -κει, (pl) ε- + these endings

middle voice

	Singular	Plural
1.	-	-
2.	-	-
3.	-	-

- = middle secondary tense endings of all verbs
- The pluperfect middle never uses the -(κ)α- marker.

STEMS

Most verbs build on their present stem, but some verbs build on their aorist stem.
To mark the perfect or pluperfect, duplicate the initial sound of the stem.
To mark secondary tenses, add an augment to the beginning of the stem.

INFINITIVE
- active:
  o Present and Aorist
    ▪ -ω conjugation: -
    ▪ -μι conjugation: -
    ▪ sigmatic aorist: -
  o Future
    ▪ All verbs add -σ- + -ειν *(from -ω conjugation).*
  o Perfect
    ▪ All verbs add -(κ)α- + -ναι → -(κ)εναι *(from -μι conjugation).*
- middle: -
  o All verbs in all tenses use -σθαι to designate the infinitive in the middle voice.

IMPERATIVE
- 2ⁿᵈ person: same endings as indicative
  o except 2ⁿᵈ singular active : - or -
  o except sigmatic aorist: 2ⁿᵈ singular: - (active) - (middle)
- 3ʳᵈ person: singular: - (active) - (middle)
  plural: - (active) - (middle)

SUBJUNCTIVE
- All verbs form the subjunctive mood with augmented (ω/η) primary endings.
  o active: - - - - *(augmented -ω conjugation active endings).*
  o middle: - - - - *(augmented primary endings).*

OPTATIVE
- All verbs form the optative mood by adding an - before secondary personal endings.
  o active: -μι conjugation secondary endings
    ▪ *(except -ω verbs use -μι for the 1st singular and 3rd plural -σαν often reduces to -ν)*
- middle: secondary endings