

Chapter Eighteen

Stems and Modes

When I was a kid, I was not mechanically inclined, but I had a friend who was. I had, of course, learned to ride a bicycle, but it had never occurred to me that a bicycle could be anything more than just a bicycle. To my friend, though, a bike was an assemblage of mechanical components: a seat to place some human energy on; gears and chain to transfer the human energy to the rear axle; wheels to facilitate movement; handle bars to steer with. I discovered the utility of my friend's way of seeing a bicycle when he took me one day into his garage to show me what he had done with his old Schwinn. He had removed the wheels since he didn't plan to use it for transportation, and he had connected the chain to a generator. I got onto this newly configured contraption and pedal-powered a light bulb. My friend then exchanged the generator for a pump, and I pumped water from a wading pool. My friend, you see, had discovered that the combination *seat and rider + gears and chain* might reasonably be viewed as a power generator. The same power generator that was used to produce transporting motion in *normal bicycle mode* could, with a bit of tinkering, also be set to operate in *electric generation mode* or *water pumping mode*. My friend might also have discovered *wheat grinding mode* or *fan-turning mode* or any number of other possible applications for that wonderfully functional unit, the pedaled power generator."

Stems

In linguistics as in mechanics we configure units in different *modes*, i.e., to accomplish different purposes. And, in linguistics as in mechanics a couple of components sometimes comprise a wonderfully versatile functional unit that forms the core of each of those configurations.

In the Greek verb system the core component that drives verbs in all modes is what linguists call the **stem**. A **stem** consists of the **base** of a verb + the **aspect marker(s)** used to set that particular verb into one of the three aspects (event, process, resultant state) or to set it in **future time**. You have already encountered stems, with time markers and personal endings attached—configured, that is, to operate in indicative mode—to make ordinary statements or ask ordinary questions. In discussing indicatives I showed you (without emphasizing the matter) that **base + aspect marker** (and/or **future marker**, as you will learn) = **stem**. But now we are poised to learn how verbs are configured to operate in non-indicative mode, and I need to focus rather emphatically on **stems**.

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In the course of learning how verbs are configured to operate in indicative mode, you learned that Greek combines the **base** of a verb (“speak,” “run,” “die,” etc.) with an **aspect marker** in order to stipulate one of three different ways of conceiving of that action. Viewed as a single unit (the **stem**), these two components communicate something like (for example) **die-event**, **die-process**, or **die-state** (i.e., be dead). To configure these various stems to operate in indicative mode, you had to add a **time marker** and an indicative personal ending. So, for example, you learned to take the stem **die-state** and attach any of three **time markers** along with an indicative **personal ending** to say either “He is dead,” “He was dead,” or “He will be dead.” Schematically, the form of all indicative verbs is

time marker / stem [= base + aspect marker] / indicative personal ending

In the chapters that follow, you are going to learn how Greek verbs are configured to operate in modes other than the indicative. You will learn how to configure verbs to give commands, to express infinitive notions (“to die”), to function as adjectives, to express various kinds of possibilities. And, you will discover at the core of each of these modes not just one verb **base**, but one of several verb **stems** (**base** + **aspect**).

So, for example, in Greek you can command someone to **speak-event**, **speak-process**, or even (in very rare circumstances) to **speak-resultant-state**, i.e., “say something” (speak-event), “keep on talking” (speak-process), or even “be in a condition of having given your speech” (= “Hurry up, and be done speaking?”) (speak-resultant-state). Similarly, any stem can in principle be set in infinitive mode. So, Greek can say, “It is a good thing for a man to **die-event** or to **die-process** or to **die-resultant-state** for his fatherland.” I.e., It is good thing for a man “to take a spear in the heart and fall over dead (die-event)” or “to lie gasping out his life” (die-process) or “to have died and therefore be lying in his grave” (die-resultant-state).

In subsequent chapters, you will be learning how to configure verbs in various modes, and we will produce every one of these configurations by adding elements to the various stems. So, in this chapter you need to learn to view as **stems** the various combinations of **base** and **aspect marker** that you have already encountered in indicative verbs. You will need to learn which stems produce which forms, and you will need to be clear just what the various stems mean.

Stems and voices

You know that verbs, when functioning in indicative mode, can be expressed in any of the three voices (active, middle, or passive). And if you think about it, you will realize that changing voices involves changing the stem in some forms, but not in others. Let’s think through the indicative forms of the base **λαβ**/ (“take”) for example. (If you have trouble with any of these forms, you should look them up in your principal parts list.)

Process Aspect Stems. To find the **process markers** that this base uses as they are actually attached to the **base**, you look at the present indicative active form λαμβάνω. You know how to analyze this form:

ο/λα^νβ/αν/ω

If you remove the time marker and personal ending, you are left with the stem λαμβαν/ [λα^νβ/αν/]—i.e., the **base** of this verb and its particular **process markers**—including whatever changes they necessarily undergo in combining with the base (the euphonic change of ν to μ in λαμβαν/, for example). For convenience, grammarians usually call this **process stem** the **present stem** because we see it most commonly in present forms. You can readily identify the present stem in any present or imperfect form of any regular verb. *One* single stem, the **present stem** is the morphological and semantic core of **process aspect** verbs in all modes. We haven't yet taught you what markers to add to make verb forms in other modes, but you do know that in the case of λαβ/, every **process aspect** form in every mode will contain the *one* process stem λαμβαν/. (This is an important statement. Make sure you get it.)

And what about the different voices? You already know the principle because you know how present indicatives work: The middle/passive forms are constructed by adding **middle/passive indicative endings** to the same **stem** used to form the actives (i.e., the present stem). So, *the present stem is used to construct all three voices of process verbs in indicative mode*. The same is true of process verbs in all other modes.

Event Aspect Stems You can easily discover the stem that a given base takes in **event aspect** by looking up its aorist indicative form in a lexicon. If you will remember the chapters on the aorist active-middle indicatives and on the aorist passive indicatives, you will remember that *event forms use different aspect markers for their active and passive forms*. For the base λαβ/, the event forms are as follows:

Aorist indicative active: ἔλαβον [ἐ/λαβ/ο/ον].

Aorist indicative middles are also formed from this stem: ἐλαβόμην [ἐ/λαβ/ο/ομην]

Aorist indicative passives are formed from a different stem: ἐλήφθην [ἐ/λα^ηβ/θ/ην]

So, verbs use *two* different **stems** to make their **event aspect** forms. The first stem is formed from the **base** and the **event aspect marker** used to produce aorist active and middle forms. Grammarians call it the **aorist active stem** or simply the aorist stem. The second is formed from the **base** and the **event-passive aspect marker** used to produce aorist passive forms. Grammarians call it the **aorist passive stem**.

The **aorist active stem** is used to construct the active and middle voice forms of event aspect verbs in indicative mode and in all other modes as well. The **aorist passive stem** is used to construct passive voice forms of event aspect verbs in indicative mode and in all other modes as well.

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Resultant-State Aspect Stems. By now you get the point: Since the stem is contained in the indicative form, you can easily isolate a given stem from the appropriate indicative form. So, to find the resultant-state stems you look to the perfect indicative forms: the perfect indicative active, and the perfect indicative middle-passive.

Perfect indicative active: εἴληφα [ø/λε/λαⁿβ/‘/α]. The stem is εἴληφ.

Perfect indicative middle-passive: εἴλημμαι [ø/λε/λαⁿβ/μαι]. The stem is εἴληβ/. (See “Note on Perfect Middle Stems” below.)

So, resultant-state verbs are constructed from *two* different stems: the **perfect active stem** and the **perfect middle stem**. The resultant-state stem that you see in the active voice of the indicative is the same stem that is used to produce active forms of resultant-state verbs in all other modes. Grammarians call it the **perfect active stem**. The resultant-state stem that you see in the middle-passive voice of the indicative is the same stem that is used to produce middle-passive forms of resultant-state verbs in all other modes. Grammarians call it the **perfect middle stem**.

Note on Perfect Middle Stems. The perfect middle stem is often somewhat camouflaged by euphonic change. In the example above, for instance, the stem is not εἴλημ/. Obviously the reduplicated form of the base λαβ/ cannot magically change β to μ. The perfect middle stem is actually εἴληβ/ [ø/λε/λαⁿβ/]. The β changes to μ in the first person of the perfect middle indicative *only* because the personal ending μαι follows. The sound βμ always experiences euphonic change to μμ. Euphonic change is nothing new, of course. It is operative even in those indicative forms whose personal endings do not begin with μ. (The 3rd-person singular of the indicative is εἴληπται [ø/λε/λαⁿβ/ται].)

The Future Time Stem. In some (though not all) modes, verbs need to be able to express a sense of futurity. When the element of futurity is needed, it is constructed in the same way it is in indicative mode. Future verb forms are also constructed from two different stems: the **future active stem** and the **future passive stem**. The **future active stem** is evident in the future active indicative. All active and middle forms of the future in all modes are formed from the future active stem. The **future passive stem** is formed by adding σ to the **aorist passive stem**. So, for example,

Future Indicative Active/Middle (**aorist active stem** + σ): ληψομαι [λαⁿβ/σ/ομαι].

Future Indicative Passive (**aorist passive stem** + σ): ληφθήσεται [λαⁿβ/θ(η)/σ/ομαι]

All Greek verbs, then, are formed from one of seven stems. But, since the future passive stem is *always* produced by adding σ to the **aorist passive stem**, we can economize. To efficiently learn the Greek verb system, we need to know *six* different stems of each Greek verb.

Principal parts

As a matter of tradition and convention, the six stems from which Greek verbs are formed are listed in lexica not as isolated stems, but as stems contained in the 1st-person singular indicative forms of six tenses: (1) present; (2) future; (3) aorist; (4) perfect; (5) perfect middle; and (6) aorist passive. These six verb forms are called the **principal parts** of a verb. To reiterate, they are important because they contain the six **stems** from which all the forms of that verb are produced.

English grammarians also rely on principal parts to explain English verb forms, though the English verb system is much simpler than the Greek one: *English has only three principal parts*. Think, for example, of the verb *to fall*. All of its forms are constructed from the principal parts **fall**, **fell**, and **fallen**.

From **fall**, we make *fall*, *falls*, *will fall*, *used to fall*, *falling*, *was falling*, *were falling*, *would fall*, and maybe some others.

From **fell**, most of us make only *fell* (though some of my students say *have fell*—ouch!)

From **fallen**, we make *has fallen*, *have fallen*, *had fallen*, and *will have fallen*.

Dictionaries expect us to know how to make all these various forms of English verbs if we know their principal parts.

Principal Parts Lists. Greek grammarians have produced two major tools to help students deal with principal parts. The first is the lexicon, which lists all the principal parts of each verb unless those principal parts are produced in an entirely regular and predictable fashion. The second is a reference chart called a **principal parts list**. Principal parts lists show the principal parts of those verbs that the grammarian deems important enough to include in the list. Due to dialectical variants, not all principal parts lists are identical.

You will encounter a couple of other confusing features of principal parts lists. First, if you encounter a verb with middle personal endings in a column (such as the present) which is normally devoted to the active voice, the reason is that that particular verb is deponent in that tense: It simply doesn't have active forms in that tense, and so the grammarian has shown you the equivalent middle form. Second, you will find some verbs whose forms are constructed from different bases. This is the phenomenon of suppletive systems, which you have encountered many times already.

What now?

Practice in extracting stems from principal parts. Since you will need to recognize the various stems to understand verb forms in non-indicative modes, you need to be certain that you know how to isolate the stem from indicative forms. Principal parts lists provide a convenient and systematic means to practice isolating stems.

The chart that follows consists of several verbs from the alphabetically arranged principal parts list in the *Appendix*. Your task is to isolate each stem by removing any augments and personal endings. Usually that task is straightforward, though a few complications arise.

Lengthenings at the end of bases. Rarely, you will need to remove lengthenings from the ends of bases. *If the base has lengthened because the aspect marker (or future time marker) was added, the stem retains those changes because it retains the aspect marker.* So, for example, most **bases** that end in α, ε, and ο lengthen before **aspect** and **future** markers (σ, σ, κ, θ). Since the **stems** retain the aspect marker, the vowel still needs to be lengthened. *At other times the stem does not retain the lengthening because the lengthening is not the result of adding the aspect marker.* Consider the present tense δίδωμι. The ω represents a lengthening in the base **δο/**, which occurs *in the singular forms only*. It is not the result of adding the aspect marker **δι**. Consequently, the present stem (**διδο/**) does not include the lengthening. So, you should expect to find *not* **διδω/**, but **διδο/** as the stem in infinitives, participles, etc.

- Remember that the **event (aorist) stems** *never* include an **augment (past time marker)**. The stem consists only of **base + aspect marker(s)**. Only in the future does the base include a time marker. But **resultant-state (perfect) stems** do include the lengthening of initial vowels that serves in place of reduplication. Resultant-state lengthenings are **aspect markers**, not **past time markers**.

- If an initial sigma or digamma is invisible in the indicative form in the principal parts list, it is invisible in the **stem** and will be invisible in all forms produced from that stem. So, for example, the present (process) stem of ἵστημι (ο/σι/στᾱ/μι) is **ἵστα/**, not **σιστα/**.

- The aorist (active/middle) stems of the three kappa aorists (ἔδωκα, ἔθηκα, ἤκα) do not include the κ. You will recall that the κ occurs only in the 3 singular forms of the indicative; the plurals are athematic strong aorists. The stems consist of **base + ο** (the event marker in the strong aorist): **δο/**, **θε/**, **ε/**.

Practice isolating the **stems** from the principal parts. I have done the first two rows for you.

Greek Before Christmas

Base	1 Present	2 Future	3 Aorist	4 Perfect	5 Perfect Middle	6 Aorist Passive
Time Aspect Voice	present process All	future event active/middle	past event active/middle	present resultant-state active	present resultant-state mid./pass.	past event passive
ἀγ/	ἄγω	ἄξω	ἤγαγον	ἤχα	ἤγμαι	ἤχθην
lead, act	ἀγ/	ἄξ/	ἀγαγ/	ἤχ/	ἤγ/	ἀχθη/
αἶρε/ έλ/	αἶρέω	αἰρήσω έλέω	εἶλον	ἤρηκα	ἤρημαι	ἤρέθην
pick up	αἶρε/	αἶρησ/ έλέ/	έλ/	ήρηκ/	ήρη	αἶρεθ/
ἀκοϝ/	ἀκούω	ἀκούσομαι	ἤκουσα	ἀκήκοα	ἤκουσμαι	ἤκούσθην
hear						
ἀν(α)/οῖγ/	ἀνοίγνυμι	ἀνοίξω	ἀνέωξα	ἀνέωχα	ἀνέωγμαι	ἀνέωχθην
open (up)						
ἀτιμαδ/	ἀτιμάζω	ἀτιμάσω	ἠτίμησα	ἠτίμακα	ἠτιμασμαι	ἠτιμάσθην
dishonor						
βαλ/	βάλλω	βαλέω	ἔβαλον	βέβληκα	βέβλημαι	έβλήθην
throw						
βιαδ/	βιάζω	βιάσω	έβιασα	βεβίακα	βεβίασμαι	έβιάσθην
force treat violently						
βλαβ/	βλάπτω	βλάψω	ἔβλαψα	βέβλαφα	βέβλαμμαι	έβλάβην
harm						
βουλ/	βούλομαι	βουλήσομαι	έβουλησάμην		βεβούλημαι	έβουλήθην
want, decide						

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Base	1 Present	2 Future	3 Aorist	4 Perfect	5 Perfect Middle	6 Aorist Passive
Time Aspect Voice	present process All	future event active/middle	past event active/middle	present resultant-state active	present resultant-state mid./pass.	past event passive
γελα/ laugh	γελάω	γελάσομαι	έγέλασα	γεγέλακα	γεγέλσασμαι	έγελάσθην
γεν/ become, happen	γίγνομαι	γενήσομαι	έγενόμην	γέγονα	γεγένημαι	έγενήθην
γνό know	γιγνώσκω	γνώσομαι	ἔγνω	ἔγνωκα	ἔγνωσμαι	εγνώσθην
γραφ/ write	γράφω	γράψω	ἔγραψα	γέγραφα	γέγραμμαι	έγράφη
δο/ give	δίδωμι	δώσω	ἔδωκα	δέδωκα	δέδομαι	έδόθην

So now you know how to extract six of the seven **stems** from the six indicative forms that are readily available to you in principal parts lists and dictionary entries. The seventh stem, the future passive, is readily produced by adding an σ to the aorist passive stem.

Am I ready to proceed?

- Do you understand the big picture of this chapter? In all modes:

All **process-aspect** verbs in all voices are formed from the **present stem** (which you can isolate from the **1st principal part**). Active voice forms are distinguished from middle/passive voice forms by **endings**, not by stem.

All verbs that indicate **futurity** in the active and middle voices are formed from the **future (active) stem** (which you can isolate from the **2nd principal part**). Active voice forms are distinguished from middle voice forms by **endings**. Passive forms are made from the **future passive stem**, which is produced by adding a **σ** to the **aurist-passive stem** [which you can isolate from the **6th principal part**].

All **event aspect** verbs (except futures) in active and middle voices are formed from the **aurist (active) stem** (which you can isolate from the **3rd principal part**). Active voice forms are distinguished from middle voice forms by **endings**. Passive forms are built from the **aurist-passive stem** [which you can isolate from the **6th principal part**].

All **resultant-state** verbs in the active voice are formed from the **perfect active stem** (which you can isolate from the **4th principal part**). Middle/passive forms are built from the **perfect middle-passive stem** (which you can isolate from the **5th principal part**).

- Are you able to accurately isolate the six stems from the six principal parts?

When you can do these things, you're ready to move on to the next chapter.