

ABSTRACT:

This entry provides a survey of classical Greek morphology, looking at the nominal and pronominal systems, gender, number, and case; prepositions and particles; the structure of the verbal system, including discussion of the formation of tense/aspect stems, moods, suppletion and diathesis. The main focus is on the grammar of classical Attic, but this is supplemented with dialect data, which serves to illustrate at various points where the grammar of Attic behaves in a typical or atypical fashion.

KEYWORDS:

verb, noun, adjective, gender, case, number, dual, middle, passive, dialect

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Classical Greek Morphology

Morphology is 'the branch of grammar that deals with the internal structure of words' (Matthews 1991:9). The most important units of analysis are *morphemes*, the minimal units of form and meaning.

In the classical period there was no single standard Greek language, but a variety of regional dialects. The focus will be on Classical Attic, the best attested variety, since many aspects of its morphology can be taken as representative of Greek more generally. Salient points of contrast with other Greek dialects will be noted, to identify features of Attic which are unusual for Greek as a whole.

Greek is an inflecting language in which grammatical affixes mark important aspects of the function of most words. Many affixes denote multiple functions simultaneously without being susceptible to further analysis. For example, the nominative singular ending was often -s, but it is impossible to identify in this separate components marking nominative and singular respectively. Such suffixes are known as *portmanteau morphemes* and such a suffixation strategy is known as *fusional*.

Grammatical endings may attach directly to roots (the morphemes which determine basic lexical meaning), as in root nouns such as *hál-s* 'salt', or to stems which are morphologically complex, in gen. sg. ptc. *lú-ont-os* 'loosening', which consists of a root followed by a stem-forming suffix.

Greek also has prefixes, including reduplication syllables in e.g. *tí-thē-mi* and *lé-loip-a*, and the augment in e.g. *é-lath-on*. There is also a nasal infix, e.g. in *la-n-th-án-ō* based on the root *lath-*.

Greek maintained a clear division between the inflectional morphology of the nominal and verbal systems. There were mechanisms for the creation of new verbs from nominal stems and new nominals from verbal stems, but these then inflected according to regular verbal or nominal patterns.

Nominals and verbs may inflect for number (singular dual and plural). However, while the dual is used consistently in Attic inscriptions until the end of the 5th century BC, it was not preserved nearly so well in many other dialects; in Ionic it disappeared much earlier. The dual is an inherited archaism with parallels in other early Indo-European languages, most notably in Vedic. But it may have become perceived as a parochial feature of Attic dialect: it is infrequent in the prose of Thucydides, not used nearly as often as it could have been in early tragedy, yet frequent in the comedies of Aristophanes (see Willi 2002:123-4 and Colvin 1999:31-3); in any event, it was abandoned in favour of the plural during the development of the Koine.

Nominal morphology

The nominal system distinguishes three genders (masculine, feminine, and neuter), three numbers (see above), and five cases (nominative, vocative, accusative, genitive, and dative).

There is no strong formal distinction between adjective and noun inflection, but while gender is generally a fixed property of nouns, often having no overt morphological expression, adjectives must inflect to express agreement in gender, number, and case with the term they qualify.

Gender in nouns can, but need not, be morphologically encoded. For example first declension forms with nominatives in *-ā* are consistently feminine, whereas first declension forms with nom. sg. *-ēs*, gen. *-ou* are

always masculine. However, different genders can be assigned to morphologically equivalent forms, e.g. second declension *lógos* (m.) beside *phēgós* (f.), third declension *patēr* (m.) beside *mētēr* (f.).

The syntactic function of a noun phrase is partly indicated by its case, though there is not a distinct case form for every possible syntactic function. The five cases of Classical Greek represent a reduction of the system inherited from Indo-European, which is traditionally reconstructed with eight cases, largely on the basis of the system found in Sanskrit. This more extensive system included a separate instrumental, ablative, and locative. Mycenaean still had an instrumental case and remnants of these other case forms survive into the classical period in adverbial formations, e.g. there are traces of the ablative in Delphian *woikō* 'from home', Dor. *hópō* 'whence', locative in Attic *oíkoi* 'at home', instrumental in Lac. *hópē* 'in such a way as'. In post-classical Greek, the dative tended to disappear and ultimately it fell together with the accusative and genitive, see Horrocks (1997:66, 124-126, and 265). Such reduction in case distinctions is known as syncretism.

Athematic declension

Nominal declension may be divided into two major classes: athematic and thematic formations. Thematic forms were characterized by a stem vowel *-e/o-* (the so-called thematic vowel) and used rather different endings to athematic stems.

The basic inflectional endings for the athematic declension may be illustrated using an example with a stem final consonant like nom./voc. sg. *phúlak-s*, acc. sg. *phúlak-a*, gen. sg. *phúlak-os*, dat. sg. *phúlak-i*; nom./voc. pl. *phúlak-es*, acc. pl. *phúlak-as*, gen. pl. *phulák-ōn*, dat.pl. *phúlak-si*; nom./voc./acc. du. *phúlak-e*, gen./dat. du. *phulák-oin*. The main differences in vowel final stems are the ending of the acc. sg. *-n* rather than *-a* (e.g. in *póli-n*) and the treatment of the accusative plural (see

below on the *i*-stems).

The vocative of *phúlaks*, and many other stop final stems, is identical with the nominative. But the vocative originally constituted the bare stem, as in *páter*, *póli*, etc. Occasional relics of the original vocative exist for stop final stems as well, though the Greek loss of word final stops has altered their appearance considerably, e.g. *paî* 'child' (voc.) < **paid-Ø* (where \emptyset indicates a zero ending).

The nominative singular of animate stems ending in *-r-*, *-n-*, and *-s-* is almost always formed not by adding *-s*, but by lengthening the vowel of the final syllable, if it was not already long, e.g. *patér-Ø*, *hēgemón-Ø*, *poimēn-Ø*, *Sōkrátēs-Ø*, etc.

Neuter nouns do not distinguish between nominative, vocative, and accusative. In the singular we find the bare stem, e.g. *génos-Ø*, *ónoma-Ø*, *dóru-Ø*, etc.; in the dual there is an ending *-e*, e.g. in *onómate*, and we find *-a* in the plural, e.g. *onómata*. Otherwise the inflection of neuters is the same as that of animate forms.

A large number of athematic types exhibit stem changes within the paradigm.

The paradigmatic alternation in the voice and aspiration of the stem final stop in examples like nom. sg. and gen. sg. *aík-s*, *aig-ós*; *phlép-s*, *phleb-ós*; *ónuk-s* *ónukhos*; etc. can be straightforwardly attributed to the neutralization of contrast between voiced, voiceless and voiceless aspirated stops before /s/ in Greek.

Other alternations depend on grammatical contexts. There are traces of paradigmatic vowel alternations inherited from Indo-European (ablaut), e.g. alternation between a long vowel, short vowel and the absence of a vowel in the stem final element of *patér*, *patér-a*, *patr-ós*.

Some alternations in stem final consonant continue inherited patterns, e.g. the alternation between stem final *-ar* and *-at-* in *hêpar-Ø*, *hêpat-os* ultimately reflects an archaic Indo-European pattern of stem alternation between **-r* and **-n-* which has been reshaped considerably in the history of Greek. Other alternations result from Greek phonological developments, such as the loss of intervocalic **s* and contraction of the resultant sequence of vowels; this produces paradigms such as *aidôs*, gen.sg. *aidoûs* (<**aido-os* < **aidos-os*), or *génos-Ø*, gen. sg. *génous* (< *gene-os*, cf. Hom. *géneos* < **genes-os*). While Attic contracted the vowels in hiatus in such paradigms, this was not the case for other Greek dialects and there are plenty of examples of gen. sg. forms in *-eos* outside Attic.

In Attic the *i*-stems and *u*-stems exhibit a unique and innovative pattern of stem alternation. The singular *i*-stem paradigm *pólis*, *póli*, *pólin*, *póleōs*, *pólei* shows the outcome of an alternation between stem forms in *-i-* and **-ēy-* in Proto-Attic-Ionic, reflected more directly in the Homeric gen. sg. *pólē-os*, dat. sg. *pólēi* < **polēy-os*, **polēy-i*. The classical Attic short *-ě-* stem has its origin in forms such as *póleōs* < **pólē-os*, via a (regular) exchange in quantity between the vowel of the stem and the vowel of the ending (quantitative metathesis). This short *-ě-* stem spread, e.g. producing acc. pl. **-e-ns*, which yielded classical *-eis* (pronounced with a close long vowel [-ē̄s]). In other dialects the stem final /i/ has simply been generalized to give gen. sg. *pólios*, dat. sg. *pólī*, nom. pl. *pólies*, acc. pl. *pólias* (or *pólins* in Cretan), gen. pl. *poliōn*, dat. pl. *pólisi*. Attic *u*-stems of the type *ástu*, *ásteōs* go back to a parallel alternating *-u-*/*-ēw-* stem and the classical short *-ě-* stem arises for the same reasons.

The declension of Attic nouns in *-eus*, such as *basileús*, gen. sg. *basiléōs*, becomes more explicable when one notes that the stem originally terminated in **-ēw-*; the Attic gen. sg. in *-éōs* derives from *-ē-os* (cf. Hom. *basilêos*) < **-ēw-os-*, by loss of **w* and quantitative metathesis. This is also the reason for the unusual acc. sg. ending in long *-ā* in this class, which emerges by regular processes in *-eā* < *-ēa* < **-ēw-a*. Other dialects

either preserved the stem in *-ēw-* (e.g. Cypriot and Boeotian), or lost the /w/ but kept a stem in long *-ē-* (e.g. Lesbian).

Thematic declension

The endings of the thematic declension can be illustrated by nom. sg. *lóg-os*, voc. sg. *lóg-e*, acc. sg. *lóg-on*, gen. sg. *lóg-ou*, dat. sg. *lóg-ōi*; nom./voc. pl. *lóg-oi*, acc. pl. *lóg-ous*, gen. pl. *lóg-ōn*, dat. pl. *lóg-ois/ lóg-oisi*; nom./voc./acc. du. *lóg-ō*, gen./dat. du. *lóg-oîn*. The neuter nom. / voc. / acc. forms can be exemplified by sg. *zug-ón*, pl. *zug-á* and du. *zug-oîn*. In other respects neuters inflect in the same way as animate forms.

There is close agreement between the Greek dialects on these endings. But there are a couple of areas of variation. Most dialects have the equivalent of the Attic gen. sg. ending *-ou*. But Thessalian has *-oio* and apocopated *-oi*, which agrees well with the Homeric genitive *-oio* and suggests an Aeolic origin for this feature in epic language. All these forms can go back to a common ending **-osyo* (cf. Ved. *-asya*).

Greek dialects have two forms of the thematic dative plural *-ois* (from PIE instr. pl. **-ōis*) and *-oisi* (from PIE loc. pl. **-oisu*). Mycenaean Greek preserved both endings with distinct functions, but most classical Greek dialects select one or the other (*-ois* in Arcadian, Cypriot, Boeotian, Thessalian, Doric, Northwest Greek and classical Attic; *-oisi* in Ionic and Lesbian except for the article). In Attic inscriptions the shorter form displaced the longer one by ca. 420 BCE. The continuing use of *-oisi* in tragedy and comedy is likely to be a literary feature.

The characteristic patterns of the 'Attic Declension' can be understood through comparison of dialect forms. The Ionic nom. sg. *nēós* beside its Attic equivalent *neós* clearly indicates that there has been quantitative metathesis between the root vowel and the ending in Attic. This explanation, together with the observation that a long vowel often shortens before another vowel, for the most part serves to explain the

rest of the paradigm acc. sg. *neón*, gen. sg. *neó*, dat. sg. *neói*; nom./voc. pl. *neói*, acc. pl. *neós*, gen. pl. *neón*, dat. pl. *neóis*; nom./voc./acc. du. *neó*, gen./dat. du. *neóin*.

The \check{a} -, \bar{a} -, and \bar{e} -stems

There are various subclasses within the first declension in Attic. Where Attic has \bar{a} -stems and \bar{e} -stems, e.g. Att. *timé* and *khórá*, Ionic has only \bar{e} -stems, while Doric has only \bar{a} -stems. This is because Attic and Ionic alone undergo a change of Proto-Greek $*\bar{a}$ to \bar{e} , but after /e/, /i/ and /r/ the change reversed in Attic alone, so that some forms in $-\bar{a}$ were restored.

Many first declension endings can be understood as the outcome of adding standard athematic endings to the stem vowel, allowing for subsequent regular sound changes, e.g. acc. sg. *timén*, gen. sg. *timês*, dat. sg. *timêi*, acc. pl. *timás*, etc. However, it is notable that the nominative singular form lacks the -s ending typical of other animate athematic paradigms. The explanation for this lies in the history of the feminine in Indo-European rather than within Greek.

Aside from the obvious parallels with the athematic declension, several endings bear a strong resemblance to those of the thematic declension, e.g. nom. pl. *timái*, dat. pl. *timaîs* beside thematic *lóg-oi*, *lóg-ois*. Indeed the on-going influence of the thematic declension can be seen in the replacement of the old Attic dat. pl., exemplified by *Athénē-si*, which showed the athematic -si ending added directly to the stem vowel.

The influence of the thematic declension is even clearer in the masculine \bar{a} -, and \bar{e} -stems. These introduce nom. sg. -s to mark masculine gender. The association of -s with masculine gender may be due to the inherited behaviour of adjectives of three terminations, which inflect as \bar{a} -stems in the feminine and as thematic stems in the masculine and neuter. The Attic gen. sg. -ou must have been

transferred directly from the thematic declension. The other dialects show reflexes of gen. sg. *-ā-o (e.g. Ion. -eō with quantitative metathesis). This also looks like a borrowing from the thematic declension at an earlier stage, though the exact mechanism is disputed.

Finally, we find another class in the first declension, which differs from the standard ā-/ē-stems in having a short ǎ-vowel in the nominative and accusative singular, e.g. *moîrǎ*, *moirǎn*.

Pronominals

Greek had a rich system of personal pronouns, demonstrative, interrogative, indefinite and relative pronouns. We will only attempt to pick up on a few points of interest here, rather than attempting a complete survey.

Personal pronouns

The personal pronouns show complex alternations. The endings involved in their inflection bear very little resemblance to nominal inflection. Outside the nominative, there is a contrast between accented forms and enclitic forms, e.g. acc. sg. *emé* and *me*, dat. sg. *emoí* and *moi*. This is a feature shared among the Greek dialects, but the forms involved differ somewhat from dialect to dialect.

The genitive of the first person singular pronoun is Attic *emoû* and enclitic *mou*, while Ionic and Homer have *emeû* and *meu*, and Homer shows earlier *eméo* and *emeîo*. We also have evidence for Dor. *eméos* and Lesb. *émethen*.

The second person singular has nom. *sú* in Attic, but *tú* in West Greek and Boeotian. Similarly, the Attic accusative form is *se* (<**twe*), while *te*

is attested in literary Doric (Alcman, Theocr.). West Greek dialects have a possessive form *teós* (<**tewo-*), whereas Attic has *sós* (<**two-*).

The most basic form of the first person plural pronoun is found in West Greek *hamé* (e.g. in Laconian) and Aeol. *ámme*, both from **ḡs-me*, the first part of which is probably an ablaut variant of the same pronoun as Latin *nōs*. The unique Att.-Ion. pronoun *hēmeîs* has the same origin but has been redetermined with the nom. pl. ending *-es*. The most basic form of the second plural personal pronoun is Cretan *humé*, to which most other dialects have added a suffix *-s*. Uniquely, Att.-Ion. added *-es* to give *hūmeîs*.

Demonstrative pronouns and the article

The inherited demonstrative pronoun *ho, hē, tó* came to be used as the definite article in Greek. There is no article in Mycenaean texts and it is vanishingly rare in Homer, where this still functioned as a demonstrative or anaphoric pronoun (though occasional examples of its use as an article seem to be attested, e.g. at Il. 1.11, 33).

The same basic pronoun seems to have been redetermined with additional particles to create the proximal demonstrative *hóde, hédē, tóde* 'this'. Other dialects use different additional particles, cf. Thess. *hó-ne*, Arc. *o-ní*, Arc.-Cypr. *ó-nu*, etc. In Attic *tóde* is the standard demonstrative pronoun in prose, whereas in Boeotian and Thessalian prose inscriptions we find *tó* instead; however, in these dialects *tóde* is perceived as being more appropriate for poetic registers and so it occurs primarily in verse inscriptions. The forms *hodí, hēdí, todí* have the deictic particle *-í*, found also in *houtosí, enthadí*, etc. These forms with *-í* were probably characteristic of spoken Attic, since they are common in Aristophanes and Plato (see Willi 2002:117-8). Similar forms in *-i* also occur in Aeolic, Arcadian, Cypriot and Elean.

Probably related to the article is the weakly deictic *hoûtos*, *haútē*, *toûto*, which shows the same distribution of forms with initial *h-* and *t-*.

Far deixis is indicated by the pronoun *ekeînos* in Attic-Ionic. This is matched by Ionic *keînos*, *kênos* in Lesbian, and several Doric dialects, including Cretan, and the etymologically unrelated but functionally equivalent *tênos*, found in Theocritus, Sophron and Epicharmus.

Prepositions and particles

The prepositions of Attic-Ionic are a relatively small closed class, yet when one looks at other dialects, it becomes clear that there is considerable variation in class membership. Beside Attic-Ionic and Lesbian *prós*, there is Homeric *protí*, Cretan *portí*, in West Greek dialects *potí*, *pot* and *po*, Arcadian and Cypriot *pós*, and Delphian and Locrian *poí*. Lesbian and Boeotian have *pedá* instead of *metá*. Apocope of prepositions is common outside Attic-Ionic, for example *án*, *pár*, and *kát* instead of *aná pará*, *katá*, and *pé* in Arcadian instead of *péda*.

The class of prepositions is closely related to the class of preverbs. In classical Attic prose preverbs immediately precede the verbs they modify. Homer testifies to an earlier stage where the connection between preverb and verb was less constrained; we sometimes find preverbs separated from their verb (tmesis), e.g. *epì ... ételle* (Il. 1.25) as well as *epételle* (Il. 4.229). Tmesis is common in Vedic also and the pattern is certainly an archaism. This may point to a stage where the distinction between preverb and preposition was not a firm one and rather one should suppose a class of syntactically less constrained local adverbs. The situation in Mycenaean Greek is surprising and seems to suggest a chronological paradox, in that while tmesis is possible in Homer, it does not occur in the Linear B texts, see Hajnal (2004).

One of the salient characteristics of Greek is its abundant use of

particles. Deniston (1954) provided a rich account of their uses and combinations. This has been supplemented in recent years by studies of particle usage in the context of new insights into discourse structure (see Rijksbaron 1997 and Bakker and Wakker 2009).

The verbal system

The Greek verb inflects for person and number, agreeing with the verbal subject, as well as expressing aspect, tense, voice, and mood through the choice of endings and modification of the verbal stem or root through affixation, ablaut, or suppletion.

There are active, medio-passive, and passive endings which fall into two broad conjugational classes: thematic and athematic (with first person singular present indicative active forms in *-ō* and *-mi* respectively). Membership of these two classes is defined lexically. The distribution of active and medio-passive forms is sometimes associated with the intrinsic semantics of the root in question, and sometimes can be a function of speaker choice (see further on Diathesis below). The range of verbal endings is too great to allow even an overview here. The basic details can be found in substantial grammars, see e.g. Smyth (1920:106 ff.). Instead we will concentrate on some important aspects of the structure of the verbal system.

Tense and aspect stems

Of central importance is the opposition between three verbal stems: present, aorist, and perfect. From each of these indicative, subjunctive, optative, imperative, infinitive and participle formations are built. The present and perfect stems also built past tense forms: the imperfect and pluperfect respectively. From the future stem many of the same formations may be built, but not the subjunctive or imperative.

Certain elements of this system have a role in indicating tense. The future stem is a clear marker of future time. In the classical period, the augment is regularly used for the imperfect, the aorist indicative, and the pluperfect indicative. In most (though admittedly not all) circumstances the augment can be taken to mark past time.

In the first instance the perfect denoted a state, and this was still true in Homer, e.g. *oîda* 'I know' *pépoitha* 'I trust', *mémona* 'I am eager for'. But by the classical period the use of the perfect to denote past events with on-going consequences had come to predominate. This ultimately led to the use of the perfect as a simple narrative past tense by the Hellenistic period, in competition with, and ultimately losing ground to, the aorist.

The mainstream view holds that an important factor in stem choice is consideration of aspect: the way in which the speaker chooses to present an event. Imperfective aspect indicates that the event has internal structure of interest to the speaker, whereas perfective aspect indicates that the event is to be viewed as an unanalyzable unity. There is good evidence for present stem forms indicating imperfective aspect, while perfective aspect is usually represented by the aorist.

However, the linguistic facts are far from straightforward, and there is no agreement about whether tense or aspect is the most important feature. For widely differing views, see McKay (1974), a proponent of the importance of aspect, and Ruijgh (1985), who regarded stem selection as a function of absolute and relative tense.

Stem formation

The most basic kind of verbal formations—root formations—are found as aorist stems and as present stems: root aorists like *éβēn* are only distinguishable from root imperfects like *éphēn* by virtue of knowing about the manner of formation of other parts of the verbal paradigm.

Various configurations of suffixation instantiate the present/aorist stem contrast: root presents beside sigmatic aorists (e.g. *phē-mí* beside *é-phē-s-a*), root aorists beside presents formed with an affix (e.g. *é-stē-n* beside *hí-stē-mi* < **sti-stē-mi*), and forms where both the present and the aorist have a characterizing affix, (e.g. *deík-nu-mi* beside *é-deík-s-a*). Occasional verbs do not show any difference in suffixation between present and aorist but modification of the root vocalism instead, e.g. *leíp-ō* and *é-lip-on* are both thematic formations.

We leave aside the formation of the perfect and future stems in this survey.

Suppletion

Like other Indo-European languages, Greek often shows verbal suppletion, whereby different categories of what is ostensibly the same verb are either built from etymologically unrelated roots, or roots whose original identity has become synchronically obscured. For example, *oísō* serves as the future tense for *phérō* and *éntenka* as its aorist, but there is no etymological connection between these forms. The reduplicated aorist of *theínō* is *épephnon*, but the etymological connection has become totally obscured by the operation of regular sound change on the original root **g^{wh}en-/*g^{wh}n-*.

Often roots do not show a complete overlap in their semantic and syntactic behaviour, and characterizing their relationship as suppletive becomes difficult, see Kölligan (2007).

Diathesis

The contrast between active, middle and passive is only formally realized in the aorist and future, where there are unambiguously

passive verb forms with a suffix *-(th)ē-*.

The active-passive opposition can be understood in terms of the manipulation of argument structure—that is the number, nature and formal expression of the participants in the state of affairs denoted by a verb. If an active verb requires two arguments (obligatory participants), the corresponding passive formation from the same verbal stem requires just one and its grammatical subject corresponds to the non-subject argument (usually the direct object) of the active verb. The argument realized as the subject of the active formation is either suppressed, or else expressed indirectly by a prepositional construction (often *hupó* plus the genitive but not always, see George 2005).

Sometimes passive voice is expressed through lexical choice rather than by morphological means, e.g. *apothnēskō* acts as the passive for *apokteínō*. It should be noted that sometimes items which are passive in form are not passive in meaning, merely intransitive, e.g. *ekhárēn* 'I rejoiced', *ekinéthē* 'he moved'.

The availability of active and passive verb forms allows control over the continuity or discontinuity of the grammatical subject in discourse and control over narrative perspective.

Middle morphology is often characterized as expressing 'affectedness of the subject' (for good traditional discussions, see Kühner and Gerth 1898:100-121 and Smyth 1920:390-394). However, it is sometimes unclear whether middle endings merely express formally something already intrinsic to the meaning of a particular verb, or whether they serve to contribute that meaning, see Bakker (1994:24). Two major uses of middle morphology may be instructive.

Verbs applying to the body or part of the body used in the middle may have a reflexive meaning, i.e. the agent of the verb is also the patient,

e.g. *louómai* 'bathe (oneself)', *knômai* 'scratch (oneself)', *keíromai* 'cut one's hair', etc., see Rijksbaron (2006:144-5).

The middle voice may also be employed to express the subject's benefit from or interest in the verbal action, e.g. *paraskeuázō* 'prepare (something) for oneself'. It may be necessary to assume that where this self-interest is already obvious from the choice of verb, the middle need not be used, e.g. *pínō* 'I drink'. Similarly, the obvious and intrinsic affectedness of the subject of verbs like *píptō* and *apothnḗskō* may obviate the need for middle morphology (Allen 2003:25, for a different view see Bakker 1994:29).

Some verbs only appear in non-active forms—so-called deponent verbs such as *boúloomai*. The appearance of semantically similar verbs in the active voice, such as *ethélō*, makes it likely that some instances of middle morphology will resist a coherent synchronic explanation and will ultimately have to be understood as an arbitrary feature stored in the lexicon.

Some verbs have middle forms in the future, without any contrast with active forms being possible, e.g. *ákoúō* : *akóusomai*. It is not clear whether middle morphology can be taken to have a separate semantic contribution in such non-contrastive instances.

Mood

The optative and subjunctive are formed from the various Greek tense/aspect stems by suffixation, while the imperative uses special personal endings. Mood formations are always finite, never producing participles, infinitives, etc.

The imperative is the mood of command. The fundamental form is the 2nd person singular which shows the bare verbal stem, e.g. *phére*. The 2nd

plural adds the ending *-te*. Third person commands are possible using the endings *-tō* and *-ntōn* (*-ntō* in Doric and Northwest Greek).

The optative can denote contingency, volition, and potentiality. In general, the athematic optative adds *-iē-* in the active singular and *-ī-* elsewhere. Thematic optatives are built with the suffix *-oi-* and in the 1st person sg. take an athematic ending, e.g. *phéroimi*. Aorist optatives such as *lúsaimi* are based on the *-sa-* aorist, while the origin of the alternative formation found for example in 2nd sg. *-eias* is disputed.

The subjunctive combines notions of expectation and the will of the speaker. In classical Greek it is formed by adding a lengthened thematic vowel *-ē/ō-* to the stem. In Homer and in some dialects there are traces of an older system whereby thematic formations lengthened their thematic vowel to form the subjunctive, while athematic formations simply added the regular thematic vowel, e.g. Hom. subj. 1st pl. *íomen* beside indicative *ímen*.

Further Reading

In addition to this rich system of inflectional morphology, classical Greek also had extensive possibilities for word formation, either by means of compounding or through an enormous range of derivational suffixes. It is beyond the scope of this entry to explore these possibilities. However, a good account of both verbal and nominal derivation can be found in Debrunner (1917), which also provides extensive discussion of nominal composition. The best account of nominal derivational morphology is still Chantraine (1933).

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