

Greek

Andreas Willi

1. Introduction

1.1. Historical sketch

Greek is an Indo-European language that has been spoken on the Balkan Peninsula since the 2nd millennium BCE. Within the language family, correspondences with Indo-Iranian and Armenian, especially in the area of the morphological system, suggest a central group of languages that underwent innovations after other branches including Italic, Celtic, and Germanic had already separated from the original language. On the Balkan Peninsula, Greek must have come into contact with pre-Indo-European substrate languages, but traces of them can only be seen in the vocabulary (loanwords: e.g. *ἀσάμινθος* ‘bathtub’).

Greek is first attested in writing in the 14th and 13th centuries BCE in the “Mycenaean” documents primarily from Crete, the Peloponnese, and central Greece. These are administrative texts (lists of tributes, allocations, etc.) written in the syllabic script known as “Linear B,” which is predominantly preserved on clay tablets from the Bronze Age palace archives of sites like Knossos, Mycenae, and Thebes. With the mid-20th-century decipherment of Linear B, Greek became the Indo-European language family attested for the longest stretch of history.

An extensive textual tradition commences, however, only several centuries after the end of the Mycenaean civilization around 1200 BCE. Its prerequisite was the takeover of the alphabet from the Northwest Semitic sphere (§1.2). The earliest, at first still brief, inscriptions date from the 8th century and are thus approximately contemporary with the recording of the Homeric epics, the *Iliad* and *Odyssey*. The latter represent the culmination of a centuries-old tradition of *oral poetry*, as shown by their stylistic and linguistic form (formulaic verse technique, metrically preserved archaisms). At the same time they constitute the most important reference point for Greek literature in the following centuries until well beyond the Classical period. Thus, epic influences are unmistakable for example in Archaic lyric (7th–5th c.) or 5th-century Athenian tragedy.

Our earliest extensively preserved prose texts come from the Classical era of the 5th and 4th centuries BCE. Alongside historians like Herodotus and Thucydides, the Athenian orators (Lysias, Demosthenes, etc.) and philosophers (Plato, Aristotle) are especially important here. Comedy (Aristophanes, Menander) gives us a glimpse of colloquial language, which in view of the nature of the sources is otherwise accessible to us only to a very limited extent through meager inscriptional evidence (graffiti and the like). Papyrus documents referring to everyday matters are not available before the Hellenistic period.

An awareness of the extensive dialectal variety of Greek is indispensable for the cultural understanding of all these texts. Until at least the 4th century every town or region uses its own local dialect, without any one of the dialects being regarded as a general standard. Even so, most literary genres are closely associated with a specific variety. Epic poetry, for instance, is generally Ionic in character, and choral lyric Doric.

On the basis of dialectal isoglosses, only a few of which can be mentioned here, the dialects of the Classical period are divided into four groups: Aeolic, Doric-Northwest Greek, Arcado-Cypriote, and Attic-Ionic. The first two go back to a northern Greek dialect sphere of the 2nd millennium BCE, the others to a southern Greek one. The most important criterion for this distinction is the southern Greek assibilation /ti/ > /si/. By contrast, the change of original (not secondary) /a:/ to /ɛ:/ in Attic-Ionic dates only to the early 1st millennium (e.g. Att.-Ion. δῆμος ‘people’ vs. Dor. δᾶμος; cf. §2). Within Attic-Ionic, most characteristic of Attic is the geminate consonant ττ in words like θάλαττα ‘sea’, where Ionic and other dialects have σσ (θάλασσα).

During the 5th century BCE, Athens established itself as a supra-regional power in the Aegean, not least in reaction to the growth of the Persian empire, which was encroaching more and more into regions of Greek settlement in Asia Minor. This development, together with an intensification of inner-Greek trade exchange, led to an increase in dialect contact and mixture. Since Athens at the same time became culturally predominant, Attic spread far beyond its ancestral domain, thereby abandoning its most idiosyncratic traits such as the ττ geminate mentioned above. This “internationalized” Attic is the basis of the “Koine” (i.e., ‘common language’) into which all the regional dialects gradually merged from the 4th century onward. The Koine tread its own path to victory from the end of that century, in the “Hellenistic” period, with the expansion of the Macedonian empire and its successor states into the Near East and Egypt (Alexandria). By Roman times at the latest, the old local dialects had all but disappeared. Literary and other texts

were now regularly written in the Koine (e.g., the New Testament, and before it the Septuagint), with a more or less strong orientation towards 5th- and 4th-century Classical Attic depending on the level of education of each author and/or their intended audience. Due to the puristic efforts of the “Atticists,” Attic increasingly turned into a linguistic yardstick, and because of the cultural significance of the Classical authors Attic has formed the basis of grammatical descriptions of ancient Greek to this day. The following sketch, too, follows this tradition. In addition, however, important developments in the Hellenistic Koine are highlighted, since Greek entered into the orbit of (Late) Old Testament culture in that period.

1.2. Script

Just as each region of Greece in the Archaic and Classical ages had its own dialect (§1.1), so too did each region have its own distinctive version of the alphabet, which was adapted from the Phoenician alphabet probably in the 9th century. All these “local” (“epichoric”) alphabets share the important innovation that some of the Semitic consonant letters were reinterpreted as indispensable vowel symbols. Regional divergences especially concern the newly created supplementary letters added at the end of the alphabet for the phonemes /p^h/, /k^h/ and the phoneme sequence /ps/.

The Classical alphabet, which was officially introduced in Athens in 403/2 BCE, was originally the epichoric alphabet of the East Ionians of Asia Minor. Characteristic are the addition of Ω for open /ɔ:/ at the end of the alphabet and the reinterpretation of Η as open /ɛ:/ instead of earlier /h/, which was possible because East Ionic, unlike most of the other dialects, no longer had a phoneme /h/. After the abandonment of the obsolete letters Φ (for lost /w/: §2.2) and Ϟ (for velar /k/ before back vowels) the following 24 letters were left. Most of them denote individual phonemes, but a few render phoneme sequences (Ζ, Ξ, Ψ) (cf. further §2):

Α, α	Β, β	Γ, γ	Δ, δ	Ε, ε	Ζ, ζ	Η, η	Θ, θ	Ι, ι	Κ, κ	Λ, λ	Μ, μ
/a(:)/	/b/	/g/	/d/	/e/	/sd/	/ɛ:/	/t ^h /	/i(:)/	/k/	/l/	/m/
Ν, ν	Ξ, ξ	Ο, ο	Π, π	Ρ, ρ	Σ, σ/ς	Τ, τ	Υ, υ	Φ, φ	Χ, χ	Ψ, ψ	Ω, ω
/n/	/ks/	/o/	/p/	/r/	/s/	/t/	/ü(:)/	/p ^h /	/k ^h /	/ps/	/ɔ:/

2. Phonology

2.1. Vowels

In prehistoric times, Greek had five short and five long vowels (/a(:)/, /e(:)/, /i(:)/, /o(:)/, /u(:)/). Until the Classical period, the short-vowel system remained relatively stable, except that /u/ shifted to /ü/ in Attic-Ionic.

The long-vowel system not only underwent the corresponding shift of /u:/ to /ü:/ and – again in Attic-Ionic – the change of inherited /a:/ to /ε:/ (§1.1, 3.1.3), but also saw the addition of one back and one front vowel by vowel contraction (after loss of intervocalic consonants like *-s-) and compensatory lengthening (e.g. *-Vns- > /-V:s-/). The long vowels /ε:/ and /ɔ:/ created in this way were more close than inherited /ε:/ and /ɔ:/, so that (including a similarly created new /a:/) a system with five short and seven long vowels resulted (Table 1). Alongside these twelve vowels there are short and long diphthongs, some of which are likewise inherited, while others (especially among the long diphthongs) arose only within Greek:

/ai/, /ei/, /oi/, /üi/ (< /ui/)
 /au/, /eu/, /ou/
 /a:i/, /ε:i/, /ɔ:i/
 (rare) /a:u/, /ε:u/, /ɔ:u/

Graphically, /ε:/ appears in Classical orthography as EI and /o:/ as OY. This was made possible by the fact that the original diphthongs /ei/ and /ou/, which had always been written EI and OY, monophthongized early to /ε:/ and /o:/ respectively, merging with the secondary long vowels. The more open (old) long vowels /ε:/ and /ɔ:/, on the other hand, were written with Η and Ω (§1.2).

Possibly as a result of the /u/ > /ü/ shift, probably already in the 5th century, the new long vowel /o:/ developed into /u:/, so that the long vowels were better distributed on the back axis. There was no corresponding shift in the short vowels, because there was only one *o*-vowel there.

Table 1. Classical Greek vowels

Short		Long		
/i/	/ü/	/i:/	/ü:/	
	/e/		/ε:/	/o:/
	/o/		/ε:/	/ɔ:/
	/a/		/a:/	

Since on the front axis /i:/ remained unchanged, here there was no empty slot that could have been filled by /e:/. Nevertheless in the 4th century at the latest, /e:/ was raised to /i:/, thus merging with original /i:/. At the same time /ɛ:/ shifted forward, becoming a new /e:/, which ultimately, in the Roman period, likewise became /i:/. Once again a new /ɛ:/ arose at the same time, as the previous diphthong /ai/ monophthongized to /ɛ:/ (while /oi/ became /ü:/). The Roman period also saw the definitive loss of distinctive vowel quantity, which accompanied the change from pitch accent to stress accent (§2.3). Still later is the change from /ü(:)/ likewise to /i(:)/, resulting in the Byzantine–Modern Greek vowel system.

For the Hellenistic Koine, then, something like the system in Table 2 can be laid out. The diphthongs /ai/, /oi/, /üi/, /au/, and /eu/ are preserved, while /a:i/, /ɛ:i/, and /ɔ:i/ have become pure long vowels through loss of their second element. They are still written AI, HI, OI (Byzantine α , η , ω with “ι subscript”), but the pronunciation is now /a:/, /ɛ:/, /o:/.

2.2. Consonants

During the Classical period the phonological system of Attic included the consonants shown in Table 3. Consonantal /w/, which in earlier times is still attested in various dialects (spelled F), disappeared in the

Table 2. Koine Greek vowels and orthography

Short		Long		
/i/	/ü/	/i:/	/ü:/	/u:/
I	Y	I, EI	Y	OY
/e/	/o/	/ɛ:/	/o:/	
E	O	H	Ω	
	/a/	/a:/		
	A	A		

Table 3. Classical Greek consonants

stops	/p/, /t/, /k/
	/b/, /d/, /g/
	/p ^h /, /t ^h /, /k ^h /
nasals	/m/, /n/
liquids	/l/, /r/
fricatives	/s/, /h/

prehistory of Attic-Ionic, albeit later than its counterpart /y/; /w/ and /y/ were preserved only as the second component of diphthongs.

The stops comprise a labial, a dental (alveolar), and a velar series, each with a voiceless, voiced, and voiceless aspirated representative. Only in the Late Hellenistic and Roman period did the voiceless aspirates /p^h/, /t^h/, /k^h/ (~ Φ, Θ, Χ) become fricatives (/f/, /θ/, /x/). Also late, but difficult to date, is the shift of the voiced stops to voiced fricatives (/b/, /d/, /g/ (~ Β, Δ, Γ) > /v/, /ð/, /ɣ/).

In addition to the labial and dental nasals with their own letters (Μ, Ν) there is a velar nasal [ŋ]. Since this occurs only for /n/ before a velar and possibly for a velar before /m/ (spelled ΓΓ, ΓΚ, ΓΧ, or ΓΜ), it does not have phonemic status.

Likewise, the word-initial voiceless pronunciation of the normally voiced /r/ is only allophonic; since Byzantine times it is graphically reflected by writing Ρ with a *spiritus asper* ("rough breathing," 'Ρ, ρ; cf. below), whereas early inscriptions occasionally show ΡΗ.

The phoneme /s/ is realized as [z] before voiced sounds. For the letter Ζ, a bi-phonemic pronunciation [zd] (rather than [dz]) is likely until the Classical period. Some time in the 4th century this must have been simplified to [z(z)], so that /z/ too acquired phonemic status in Hellenistic Greek.

Finally, the glottal fricative /h/ occurs only word-initially and in compound forms (e.g. εὐὸρκος /eu-horkos/). While its loss in individual dialects such as East Ionic occurred early ("psilosis"), /h/ persists in the Koine well into the Roman period. However, as soon as the letter Η came to be used for /e:/ and no longer designated /h/ (§1.2), the latter sound was no longer written, until the Alexandrian grammarians developed the *spiritus asper* from an epigraphic variant of Η, namely ἥ (in ἄ-, ἔ- etc.).

Nasals, liquids, (voiceless) stops, and /s/ can also be geminated; the voiceless aspirated geminated stops are written ΠΦ, ΤΘ, ΚΧ, with only the second element aspirated.

2.3. Accent

Until the Hellenistic period, Greek did not have a stress (intensity, loudness) accent, but a pitch (frequency) accent. This accent can fall on one of the last three syllables of a word if its last syllable is short (i.e. contains a short vowel) or on one of the last two syllables if the last one is long (i.e. contains a long vowel or a diphthong); the placement of the accent for each word is determined paradigmatically. Accents are written in papyri since the Alexandrian period, but systematically only later.

The acute accent marks high tone on a short vowel or a tone that rises over the duration of a long vowel/diphthong (nom. ἄγαθός). Its counterpart is the circumflex, which marks a tone that falls over the duration of a long vowel/diphthong (and cannot occur on a short vowel) (gen. ἀγαθοῦ). The grave accent replaces the acute when the acute would fall on the last syllable of a word that is followed neither by a toneless (enclitic) word nor by a pause (e.g. at the end of a clause) (nom. ἀγαθός ἀνήρ). Enclitic, and so without their own accent, are numerous particles, unstressed pronouns (§3.3.5), or forms of the auxiliary verb εἶμι ‘to be’ (§3.5.2).

3. Morphology

3.1. Nouns

3.1.1. General

The declension of nouns includes five cases (nominative, genitive, dative, accusative, vocative), three numbers (singular, plural, dual), and three genders (masculine, feminine, neuter). Traces of a separate instrumental, ablative, and locative are only visible as relics (cf. locative adv. οἴκοι ‘at home’, instrumental Mycenaean-Homeric *-pi* or *-phi* e.g. in βίηφι ‘with force’). The dual, which was lost early in Ionic, survived in Attic until the 4th century, when it disappeared there too. The genders, as in many modern languages, only partly correspond with the biological sex of an item. To be sure, male beings are mostly masculine and female beings feminine, but inanimate and abstract items are far from always neuter, and e.g. diminutives in *-ιον/-ίδιον* (§5) are neuter even when they refer to persons (cf. παιδίον ‘child’).

Nouns are divided into three declensions according to the final sound of the stem: the first or *ā*-declension, the second “thematic” or *o*-declension, and the third declension. The *ā*-declension originally represents a subgroup of the third declension, but in historical times it rather groups with the *o*-declension, as *o*-stem masculines, especially in the adjective paradigm, are regularly paralleled by *ā*-stem “motionsfeminina” (e.g. masc. δίκαιος, fem. δικάια ‘equitable’). Accordingly, the *o*-declension includes primarily masculines and neuters, and the *ā*-declension feminines, but exceptions do occur (e.g. fem. παρθένος ‘maiden’), and within the *ā*-declension there is even a special masculine type (§3.1.3). Similarly, in the third declension certain formal types are associated with a specific gender (e.g. masc. -τήρ, fem. -σις, neut. -μα; cf. §5), but overall the three genders are balanced here.

3.1.2. *o*-Declension

Masc. λόγος ‘word’ and neut. δῶρον ‘gift’ serve as examples for the *o*-declension. Masculines and neuters are distinguished only in the nominative (and vocative) singular and the nominative and accusative plural. As in all neuter paradigms, the neuter nominative and accusative are identical. In the plural the nominative forms are also used for the vocative (Table 4). Alongside -οις, the dative plural is sometimes -οισι(ν) (with or without -ν), which predominates in a few non-Attic dialects. A typical feature of Homeric Greek is -οιο for the genitive singular.

Due to some sound changes in Attic-Ionic (esp. -ηο- > -εω-), there is a subgroup of the *o*-declension known as the “Attic” declension for words like νεώς ‘temple’ (Table 5); because of its irregularity this is lost in Koine Greek.

Table 4. Classical Greek *o*-declension

	Sg.	Pl.
nom.	λόγ-ος (δῶρ-ον)	λόγ-οι (δῶρ-α)
gen.	λόγ-ου	λόγ-ων
dat.	λόγ-ω	λόγ-οις
acc.	λόγ-ον (δῶρ-ον)	λόγ-ους (δῶρ-α)
voc.	λόγ-ε (δῶρ-ον)	= nom.

Table 5. Classical Greek “Attic” declension

	Sg.	Pl.
nom.	νεώς	νεώ
gen.	νεώ	νεών
dat.	νεώ	νεώς
acc.	νεών	νεώς

3.1.3. *ā*-Declension

Examples for the *ā*-declension are fem. τιμή ‘honor’ and masc. πολίτης ‘citizen’ (Table 6). Masculines and feminines are distinct in the nominative and genitive singular, where the masculines have taken over -ς and -ου from the *o*-stems; and masculines in -της have their own vocative

Table 6. Classical Greek \bar{a} -declension

	Sg.	Pl.
nom.	τιμ-ή (πολίτ-ης)	τιμ-αί
gen.	τιμ-ῆς (πολίτ-ου)	τιμ-ῶν
dat.	τιμ-ῆι	τιμ-αῖς
acc.	τιμ-ήν	τιμ-ᾶς
voc.	= Nom. (πολίτ-α)	= Nom.

singular. The name “ \bar{a} -declension” refers to the stem-final original /a:/ that in Attic-Ionic has mostly become /ε:/ (§2.1). In Attic the change generally does not occur after ϵ , ι , ρ as in $\chi\acute{\omega}\rho\bar{a}$ ‘land’ (gen. $\chi\acute{\omega}\rho\alpha\varsigma$ beside $\tau\iota\mu\eta\varsigma$ etc.). Again the dative plural has a variant $-α\iota\sigma\iota(\nu)$ (Homeric $-η\sigma\iota(\nu)$) alongside $-α\iota\varsigma$. In the genitive plural the typical stem-final $-α/-η-$ is missing, since $-ῶν$ is a contraction of $-ᾶων$.

A subgroup of the \bar{a} -declension is formed by the otherwise identically inflected feminines like $\tau\rho\acute{\alpha}\pi\epsilon\zeta\alpha$ ‘table’ with short $-α$ and $-αν$ in the nominative and accusative singular. Since most of them involve the old suffix $*-γα$ that can form motionsfeminina from consonant stems, this type is especially common in the feminines of adjectives and participles of the third declension (e.g. fem. $\pi\acute{\alpha}\sigma\alpha$ ‘each’ < $*\text{pant-}γα$ alongside masc. $\pi\acute{\alpha}\varsigma$ with the stem $\pi\alpha\nu\tau-$).

3.1.4. Third declension

According to the stem-final phoneme, the third declension is divided into consonant stems and vowel stems, each with further subgroups (r -stems, i -stems, u -stems, etc.). The case endings are basically identical for all of them, although this fact is occasionally obscured by sound changes. Thus in the accusative singular the $-ν$ of the vowel stems and the $-α$ of the consonant stems both go back to prehistoric $*-n$: after a consonant this turned into vocalic $*-η > -α$. Our examples for the consonant stems are the (masculine) r -stem $\pi\alpha\tau\acute{\eta}\rho$ ‘father’, the (feminine) dental stem $\acute{\epsilon}\lambda\pi\acute{\iota}\varsigma$ ‘hope’, and the (neuter) s -stem $\gamma\acute{\epsilon}\nu\omicron\varsigma$ ‘gender’ (whose endings result from vowel contraction after the loss of intervocalic $*-s-$) (Table 7). The example $\pi\alpha\tau\acute{\eta}\rho$ shows that, depending on the individual paradigm, the stem can appear in as many as three “ablaut grades” ($\pi\alpha\tau\eta\rho-$, $\pi\alpha\tau\epsilon\rho-$, $\pi\alpha\tau\rho(\alpha)-$). Since the combination of stem-ending + $-ς$ in the nominative singular often results in sound changes (e.g. $*-d-s > -ς$ in $\acute{\epsilon}\lambda\pi\acute{\iota}\varsigma$), the pure stem can best be seen in the genitive singular.

Table 7. Classical Greek third declension consonant stems

	(Masc.) <i>r</i> -stem 'father'	(Fem.) dental stem 'hope'	(Neut.) <i>s</i> -stem 'gender'	Endings
sg. nom.	πατήρ	ἐπίς	γένος	-ς/-Ø (neut. -Ø)
gen.	πατρ-ός	ἐπίδ-ος	γένους (< * <i>-es-os</i>)	-ος
dat.	πατρ-ί	ἐπίδ-ι	γένει (< * <i>-es-i</i>)	-ι
acc.	πατέρ-α	ἐπίδ-α	γένος	-α (neut. -Ø)
voc.	πάτερ	= nom.	= nom.	-Ø (or = nom.)
pl. nom./voc.	πατέρ-ες	ἐπίδ-ες	γένη (< * <i>-es-a</i>)	-ες (neut. -α)
gen.	πατέρ-ων	ἐπίδ-ων	γενῶν (< * <i>-es-ōn</i>)	-ων
dat.	πατρά-σι	ἐπί-σι	γένεσι (< * <i>-es-si</i>)	-σι(ν)
acc.	πατέρ-ας	ἐπίδ-ας	γένη (< * <i>-es-a</i>)	-ας (neut. -α)

The model paradigms for the vowel stems are the (feminine) *i*-stem πόλις 'city', the (masculine) *u*-stem πήχυς 'cubit', and the diphthong stem βασιλεύς 'king'. The original situation is obscured here, too, by the loss of intervocalic **-y-* (*i*-stems) or **-w-*. Moreover Attic in particular has undergone some profound changes (while other dialects display, for example, the more transparent πόλι-ος in the gen. sg.).

In the later Koine the accusatives in -α were often clarified into -αν, and the accusative plural was harmonized with the nominative plural where the two had still differed in Classical Greek (i.e. -ες for -ας).

Table 8. Classical Greek third-declension vowel stems

	(Fem.) <i>i</i> -stem 'city'	(Masc.) <i>u</i> -stem 'cubit'	Diphthong stem 'king'	Endings
sg. nom.	πόλι-ς	πήχυ-ς	βασιλεύ-ς	-ς/-Ø (neut. -Ø)
gen.	πόλεως	πήχεως	βασιλέως (< * <i>-ēw-os</i>)	-ος
dat.	πόλει	πήχει	βασιλεῖ (< * <i>-ēw-i</i>)	-ι
acc.	πόλι-ν	πήχυ-ν	βασιλέ-α (< * <i>-ēw-a</i>)	-ν/-α (neut. -Ø)
voc.	πόλι	πήχυ	βασιλεῦ	-Ø
pl. nom./voc.	πόλεις (< * <i>-ey-es</i>)	πήχεις	βασιλής/-εῖς (< * <i>-ēw-es</i>)	-ες (neut. -α)
gen.	πόλε-ων	πήχε-ων	βασιλέ-ων (< * <i>-ēw-ōn</i>)	-ων
dat.	πόλε-σι	πήχε-σι	βασιλεῦ-σι (< * <i>-eu-si</i>)	-σι(ν)
acc.	πόλεις	πήχεις	βασιλέ-ας (< * <i>-ēw-as</i>)	-(α)ς (neut. -α)

3.2. Adjectives

The declension of the adjectives corresponds for the most part to that of the nouns. As a counterpart to *o*-stem masculines and neuters we find *ā*-stem feminines (§3.1.1), but in compounds separate feminine forms occur with some frequency only in post-Classical times.

In addition to the basic form there are a comparative and a superlative. Regular comparatives use the suffix *-τερος* (*δίκαιος* ‘just’ → *δικαιότερος* ‘more just’), but many lexemes have instead an older formation with *-(ί)ων* (neut. *-(ί)ον*) (*καλός* ‘beautiful’ → *καλλίων* ‘more beautiful’). This is inflected as an *n*-stem, but in the accusative singular masculine and feminine and in the nominative and accusative plural (all genders) there are also archaic *s*-stem forms *-(ί)ω* and *-(ί)ους* instead of *-(ί)ονα* and *-(ί)ουες/- (ί)ονας*.

The comparative in *-τερος* goes with a superlative in *-τατος* (*δικαιότατος* ‘most just’, also elative ‘very just’), the comparative in *-(ί)ων* with a superlative in *-ιστος* (*κάλλιστος* ‘most beautiful’). Some adjectives have suppletive forms of comparison (i.e. comparatives and superlatives from etymologically unrelated stems: e.g. *ἀγαθός* ‘good’ → *βελτίων/βέλτιστος* ‘better/best’). In the Koine the use of the superlative decreases, and the comparative then functions also as superlative/elative.

3.3. Pronouns

3.3.1. Article

The definite article *ὁ, ἡ, τό* goes back to an old demonstrative pronoun. Its oblique cases are formed from a stem *το-/τη-* and are inflected like *o*-stems (masc. and neut.) and *ā*-stems (fem.) (thus gen. sg. *τοῦ, τῆς, τοῦ*, etc.). A stem without the initial dental appears not only in the nominative singular masculine and feminine, but also in the nominative plural (*οἱ, αἱ*, but neut. *τά*).

The article precedes its head. If there is a modifier, it comes either in between, or else with repetition of the article after the head (*ὁ ἀγαθὸς ἄνθρωπος* or *ὁ ἄνθρωπος ὁ ἀγαθός* ‘the good man’). The repetition is often suppressed, however, with attributive genitives (*ὁ βωμὸς τῶν θεῶν* ‘the altar of the gods’). The article is also used on familiar or recently mentioned proper names (*ὁ Σωκράτης*) and in combination with demonstrative pronouns (§3.3.2). By contrast, it is not used on predicate nominals.

Greek does not have an indefinite article. Indefiniteness can be signaled with the indefinite pronoun *τις, τι*, and later also with the number *εἷς, μία, ἓν* ‘one’ (§3.4).

3.3.2. Demonstrative pronouns

The pronoun *ὅδε, ἧδε, τόδε* (inflected like the article + *-δε*) kataphorically points forward and is used for near deixis (‘this here’). However, in post-Classical times *ὅδε* is ousted by the more general deictic *οὗτος, αὕτη, τοῦτο* (with oblique *o*-stem *τουτο-* in the masc. and neut. and *ā*-stem *ταυτη-* in the fem., but nom.pl. *οὗτοι, αὐται, ταῦτα*), which regularly points back to something that has been mentioned (‘this’) and may sometimes, but not always, be assigned to middle deixis. Far deixis is signaled by *ἐκεῖνος, ἐκεῖνη, ἐκεῖνο* (‘that’). All these pronouns occur with the article in “predicative” position (*ὅδε ὁ ἄνθρωπος* ‘this person’).

3.3.3. Relative pronouns

The simple relative pronoun is *ὅς, ἥ, ὅ*, which takes the inflection of the *o*-stems and *ā*-stems respectively (gen. sg. *οὔ, ἥς, οὔ*, etc.). In addition, there is an indefinite generalizing relative pronoun *ὅστις, ἥτις, ὅτι* ‘who/whatever’, a compound of *ὅς, ἥ, ὅ* + indefinite *τις, τι* (§3.3.4; thus gen. sg. *οὔστινος, ἥστινος, οὔστινος*, etc.; also gen. sg. *ὅτου*, dat. sg. *ὅτω* and nom.-acc. neut. pl. *ἅττα*). This is also used when the speaker cannot or will not further specify an antecedent (e.g. *σοφός ἐστιν ὅστις ἔφασκε* ‘wise is he who said’, but *σοφός ἐστιν ὁ ἀνὴρ ὃν ὀρᾷς* ‘wise is the man whom you see’). In the Koine, *ὅστις* increasingly replaces simple *ὅς*.

3.3.4. Interrogative and indefinite pronouns

The interrogative pronoun masc./fem. *τίς*, neut. *τί* is used substantively (‘who?, what?’) and adjectivally (‘which?’). In indirect questions *ὅστις* (§3.3.3) can be used as an alternative. The inflection of *τίς, τί* is based on a consonant stem *τιν-* (gen. sg. *τίνος*, dat. sg. *τίνι*, nom. pl. *τίνας*, etc.; alongside gen. sg. *τοῦ*, dat. sg. *τῷ*).

The indefinite pronoun *τις, τι* is formally identical with the interrogative pronoun, except that it is unstressed/enclitic (*ἄνθρωπός τις* ‘any person’, substantivally *τις* ‘someone’).

The proportion interrogative τίς: indefinite τις: relative ὅς: generalizing relative or indirect interrogative ὅστις is equally found among the pronominal adverbs; cf. e.g.

ποῦ 'where?'	που 'somewhere'	οὗ 'where'	ὅπου 'where(ever)'
πότε 'when?'	ποτε 'at some time'	ὅτε 'when'	ὅποτε 'when(ever)'

3.3.5. Personal pronouns

Personal pronouns (Table 9) are only used in the nominative when they are stressed (e.g. contrastive); elsewhere the person-marking inherent in the verb endings suffices. In the singular each of the other cases has both an enclitic and a stressed form, the latter of which is also used after prepositions.

The oblique forms of αὐτός, αὐτή, αὐτό are used as a third-person anaphoric pronoun, which otherwise means 'self/same' (attributive ὁ αὐτὸς ἄνθρωπος 'the same person', predicative ὁ ἄνθρωπος αὐτός 'the person himself').

There are also reflexive pronouns compounded with the stem αὐτο- (e.g. acc. 1sg. ἐμαυτόν/-ήν, 2sg. σ(ε)αυτόν/-ήν, 3sg. ἐαυτόν/-ήν, 1pl. ἡμᾶς αὐτούς, 2pl. ὑμᾶς αὐτούς, 3pl. ἐαυτούς or σφᾶς αὐτούς). In the Koine, especially in the plural, the third person gradually replaces the other persons (ὁρῶμεν ἐαυτούς 'we see ourselves' instead of ἡμᾶς αὐτούς). The possessive pronouns are ἐμός 'my', σός 'thy', ἡμέτερος 'our', ὑμέτερος 'your', but already in the Classical period, and especially later, when unstressed the genitive of the enclitic personal pronouns tends to be used instead (ὁ φίλος μου 'my friend' beside ὁ ἐμός φίλος). The third person corresponds: ὁ φίλος αὐτοῦ 'his friend'.

3.4. Numbers

Whereas the ordinal numbers inflect as *o*-stem or *ā*-stem adjectives, the cardinals are declinable only from '1' to '4' (also in combinations:

Table 9. Classical Greek personal pronouns

	FIRST PERSON		SECOND PERSON	
	Sg.	Pl.	Sg.	Pl.
nom.	ἐγώ	ἡμεῖς	σύ	ὑμεῖς
gen.	ἐμοῦ, μου	ἡμῶν	σοῦ, σου	ὑμῶν
dat.	ἐμοί μοι	ἡμῖν	σοί σοι	ὑμῖν
acc.	ἐμέ με	ἡμᾶς	σέ σε	ὑμᾶς

Table 10. Classical Greek numbers

	Cardinals	Ordinals
'1'	masc. εἷς (neut. ἓν), ἐνός, ἐνί, ἕνα (neut. ἓν), fem. μία, μιᾶς, μιᾷ, μίαν	πρῶτος
'2'	δύο, δυοῖν (later δύο/δυσῶν), δυοῖν (later δυσί), δύο	δεύτερος
'3'	τρεις (neut. τρία), τριῶν, τρισί, τρεῖς (neut. τρία)	τρίτος
'4'	τέσσαρ-ες (neut. -α), -ων, -σι, -ας (neut. -α)	τέταρτος
'5'	πέντε	πέμπτος
'6'	ἕξ	ἕκτος
'7'	ἐπτά	ἑβδομος
'8'	ὀκτώ	ὀγδοος
'9'	ἐννέα	ἕνατος
'10'	δέκα	δέκατος

e.g. τρεῖς/τρία καὶ δέκα or, especially in the Hellenistic period, δέκα τρεῖς/τρία '13', εἷς/μία/ἓν καὶ ἑξήκοσι '21', etc.), and in the hundreds (e.g. διακόσιοι/-αι/-α '200') and thousands (e.g. χίλιοι/-αι/-α '1000'). The word for '1' is unique in distinguishing three genders (Table 10).

3.5. Verbs

3.5.1. General

The conjugation of the verb is so complex that the presentation here must be especially condensed. Most of the categories can be traced back to the Indo-European proto-language, but Greek has also innovated to an extent (e.g. passive forms) and, post-Classically, restructured or abandoned (e.g. rise of a periphrastic future, loss of the optative and perfect).

There are three persons, three numbers (singular, plural, dual: but on the dual cf. §3.1.1), four moods (indicative, subjunctive, optative, imperative), seven tenses (present, future, imperfect, aorist, perfect, pluperfect, and the rare future perfect), and three voices ("diatheses"; active, middle, passive). The multiplicity of forms is somewhat reduced in that the imperfect and pluperfect appear only in the indicative, the future and future perfect have neither subjunctive nor imperative, the perfect of the subjunctive and optative is mostly periphrastic, and the passive and middle are distinct only in the aorist and future (with the passive expanding in the Koine at the expense of the middle). Also part of the verbal paradigm are (a) an infinitive and a participle in the present, future, aorist, and perfect of each of the voices and (b) one verbal adjective in -τός, which usually expresses a possibility (παιδευτός 'educable'),

and another in -τέος, to express a necessity (παιδευτέος ‘one who must be educated’).

The verbs are divided into a “thematic” (in -ω) and an “athematic” (in -μι) class. Their endings differ principally in the singular: the stem of the thematic verbs originally ends with an -ε/ο- vowel but synchronically this vowel often merges with the endings proper (cf. παιδεύ-ο-μεν ‘we educate’ vs. δείκνυ-μεν ‘we show’).

To conjugate a verb one must know its “principal parts,” which are derivable only to a limited extent (in entirely regular verbs). These are the present stem, the active and middle future stem, the active and middle aorist stem, the active perfect stem, the mediopassive perfect stem, and the passive aorist stem.

3.5.2. Present and imperfect

The thematic and athematic present appear in Table 11A. The athematic presents (of which those in -νῦμι constitute the largest group) are much less common than the thematic ones. However, a few frequent verbs are inflected athematically, such as the “root presents” (comprising only root + ending without suffixes) εἶ-μί ‘to be’ (see below) and φη-μί ‘to say’, and the “reduplicated” presents δί-δω-μι ‘to give’, τί-θη-μι ‘to put’, and ἵ-στη-μι ‘to set up’ (with a reduplication syllable containing -ι- before the root). Their archaic nature is still seen in the distinct ablaut grades of the active singular and plural (e.g. 1sg. δίδω-μι vs. 1pl. δίδο-μεν; cf. -νῦ- vs. -νυ- in δείκνυμι). Especially in the Hellenistic period, athematic verbs are entirely or partly thematized (e.g. -νύω instead of -νυμι, ἰστώνω instead of ἵσθημι).

The imperfect is also formed on the present stem (Table 11B). At the front, as in the other past tenses (indicative aorist and pluperfect), comes the “augment,” which is realized before a consonant as ἐ-, and before an initial vowel as its lengthening (e.g. ἐλπίζω ‘to hope’ → imperf. ἤλπίζον, ἄγω ‘to lead’ → imperf. ἤγον with /ε:/ < /a:/). The imperfect also carries the “secondary endings,” which originally were distinguished from the “primary endings” of the present only in that they had no final *-i. Synchronically, however, this relationship is barely recognizable any more. In thematic verbs with vowel-final stems (“contract verbs” in -έω, -άω, -όω), the result of the contraction of this vowel with the ending is a somewhat distinct inflection that is, however, regular when the relevant contraction rules are taken into account (e.g. α + ε/η = ā, thus 3sg. imperf. ἐ-τίμα-εσ > ἐτίμας from τιμάω ‘to honor’; ε + ο = ου, thus 1pl. pres. ποιέ-ομεν > ποιούμεν from ποιέω ‘to make’).

Table 11. Classical Greek present-stem verb inflection

		THEMATIC 'to educate'		ATHEMATIC 'to show'	
		Active	Middle-passive	Active	Middle-passive
A. PRESENT					
sg.	1st	παιδῦ-ω	παιδῦ-ομαι	δείκνῦ-μι	δείκνυ-μαι
	2nd	παιδῦ-εις	παιδῦ-ῆ/-ει	δείκνῦ-ς	δείκνυ-σαι
	3rd	παιδῦ-ει	παιδῦ-εται	δείκνῦ-σι(ν)	δείκνυ-ται
pl.	1st	παιδῦ-ομεν	παιδευ-όμεθα	δείκνυ-μεν	δεικνύ-μεθα
	2nd	παιδῦ-ετε	παιδῦ-εσθε	δείκνυ-τε	δείκνυ-σθε
	3rd	παιδῦ-ουσι(ν)	παιδῦ-όνται	δεικνύ-ᾱσι(ν)	δείκνυ-νται
inf.		παιδῦ-ειν	παιδῦ-εσθαι	δεικνύ-ναι	δείκνυ-σθαι
part.	masc.	παιδῦ-ων, -οντος	παιδευ-όμενος	δεικνύ-ς, -ντος	δεικνύ-μενος
	fem.	παιδῦ-ουσα, -ούσης	παιδευ-ομένη	δεικνύ-σα, -σης	δεικνυ-μένη
	neut.	παιδῦ-ον, -οντος	παιδευ-όμενοι	δεικνύ-ν, -ντος	δεικνύ-μενοι
B. IMPERFECT					
sg.	1st	ἔ-παίδευ-ον	ἔ-παιδευ-όμην	ἔ-δείκνῦ-ν	ἔ-δεικνύ-μην
	2nd	ἔ-παίδευ-εις	ἔ-παιδῦ-ου	ἔ-δείκνῦ-ς	ἔ-δεικνυ-σο
	3rd	ἔ-παίδευ-ε(ν)	ἔ-παιδῦ-ετο	ἔ-δείκνῦ	ἔ-δεικνυ-το
pl.	1st	ἔ-παιδῦ-ομεν	ἔ-παιδευ-όμεθα	ἔ-δείκνυ-μεν	ε-δεικνύ-μεθα
	2nd	ἔ-παιδῦ-ετε	ἔ-παιδῦ-εσθε	ἔ-δείκνυ-τε	ἔ-δείκνυ-σθε
	3rd	ἔ-παιδευ-ον	ἔ-παιδῦ-οντο	ἔ-δείκνυ-σαν	ἔ-δείκνυ-ντο
C. IMPERATIVE					
sg.	2nd	παίδευ-ε	παιδῦ-ου	δείκνῦ	δείκνυ-σο
	3rd	παιδευ-έτω	παιδευ-έσθω	δεικνύ-τω	δεικνύ-σθω
pl.	2nd	παιδῦ-ετε	παιδῦ-εσθε	δείκνυ-τε	δείκνυ-σθε
	3rd	παιδευ-όντων (παιδευ-έτωσαν)	παιδευ-έσθων (παιδευ-έσθωσαν)	δεικνύ-ντων	δεικνύ-σθων
'to put'					
D. SUBJUNCTIVE					
sg.		παιδῦ-ω, -ῆς, -ῆ	παιδῦ-ώμαι, -ῆ, -ῆται	τιθ-ῶ, -ῆς, -ῆ	τιθ-ῶμαι, -ῆ, -ῆται
pl.		παιδῦ-ώμεν, -ῆτε, -ωσι(ν)	παιδευ-ώμεθα, -ῆσθε, -ωνται	τιθ-ώμεν, -ῆτε, -ῶσι(ν)	τιθ-ώμεθα, -ῆσθε, -ῶνται
E. OPTATIVE					
sg.		παιδῦ-οίμι, -οις, -οι	παιδευ-οίμην, -οιο, -οιτο	τιθ-εἴμην, -εἶο, -εἶτο	τιθ-εἶην, -εἶης, -εἶη
pl.		παιδῦ-οίμεν, -οιτε, -οιεν	παιδευ-οίμεθα, -οισθε, -οιντο	τιθ-εἶμεν/ -εἶημεν, -εἶτε/ -εἶητε, -εἶεν/ -εἶησαν	τιθ-εἶμεθα, -εἶσθε, -εἶντο

Table 12. Conjugation of εἰμί ‘to be’

		INDICATIVE		SUBJUNCTIVE	OPTATIVE	IMPERATIVE
		Present	Imperfect	Present	Present	Present
sg.	1st	εἰμί	ἦν, older ἦ (ἦμην)	ᾶ	εἶην	
	2nd	εἶ	ἦσθα (ἦς)	ἦς	εἶης	ἴσθι
	3rd	ἔστί	ἦν	ἦ	εἶη	ἕστω
pl.	1st	ἔσμεν	ἦμεν (ἦμεθα)	ᾶμεν	εἶμεν/εἶημεν	
	2nd	ἔστέ	ἦ(σ)τε	ἦτε	εἶτε/εἶητε	ἕστε
	3rd	εἰσίν(ν)	ἦσαν	ᾶσι(ν)	εἶεν/εἶησαν	ἕστων/ᾶντων (ἕστωσαν)

There is an imperative (Table 11C; Hellenistic innovations in parentheses) for the second and third person (e.g. παιδεύετω ‘he must educate!’).

The subjunctive (Table 11D) is characterized by long-vowel (“primary”) endings, which were transferred from the thematic inflection to the athematic early on. Where the indicative has -η-/ω- (1sg. act., 2sg. mid.-pass.), it does not differ from the subjunctive.

The optative, lastly (Table 11E), is marked by a diphthong before the endings (of the “secondary” set, except in the 1sg. act.). Thematic verbs have forms with -οι-, athematic ones with -οι(η)-, -αι(η)-, or -ει(η)- according to the vowel of the verb root (e.g. τιθείην ‘I would put’ from τιθε-, δίδοίην ‘I would give’ from δίδο-, ἵσταίην ‘I would set up’ from ἵστα-). Since the verbs in -νυμι have been assimilated to the thematic verbs in the subjunctive and optative (subj. δεικνύ-ω, opt. δεικνύ-οιμι), τίθημι ‘to put’ is used here as an example of the athematic inflection. Its subjunctives are again explained by vowel contraction (e.g. 1sg. τιθῶ < *τιθέ-ω).

The athematic conjugation of εἰμί ‘to be’ (Table 12) is important (inf. εἶναι, part. masc. ᾶν, ᾶντος, fem. οὔσα, οὔσης, neut. ᾶν, ᾶντος). Hellenistic forms, which to an extent prefigure the later transfer of the verb into the middle (εἰμί → εἶμαι), are again parenthesized.

3.5.3. Aorist

In the productive “sigmatic” aorist (Table 13) an element -σ(α)- follows the verbal root (but the -σ- is sometimes obscured: e.g. ἠγγεῖλα ‘I announced’ with -ειλ- < *-els- from the pres. ἀγγέλλω). The endings are similar to the thematic secondary endings, but they have -α- in place of -ε/ο- except in the 3sg. active. As an aspectual category (§4.2.2), the aorist also has (unaugmented) modal forms, infinitives, and participles. The

Table 13. Classical Greek aorist-stem verb inflection

		Active	Middle
INDICATIVE			
sg.	1st	ἐ-παίδευ-σα	ἐ-παίδευ-σάμην
	2nd	ἐ-παίδευ-σας	ἐ-παιδεύ-σω
	3rd	ἐ-παίδευ-σε(ν)	ἐ-παιδεύ-σατο
pl.	1st	ἐ-παιδεύ-σαμεν	ἐ-παίδευ-σάμεθα
	2nd	ἐ-παιδεύ-σατε	ἐ-παιδεύ-σασθε
	3rd	ἐ-παίδευ-σαν	ἐ-παιδεύ-σαντο
IMPERATIVE			
sg.	2nd	παίδευ-σον	παίδευ-σαι
	3rd	παίδευ-σάτω	παίδευ-σάσθω
pl.	2nd	παιδεύ-σατε	παιδεύ-σασθε
	3rd	παίδευ-σάντων (παίδευ-σάτωσαν)	παίδευ-σάσθων (π.-σάσθωσαν)
SUBJUNCTIVE			
		παιδεύ-σω, -σης etc.	παιδεύ-σωμαι, -ση etc.
OPTATIVE			
		παίδευ-σαιμι, -σαις (-σειας), -σαι (-σειε(ν)), -σαιμεν, -σαιτε, -σαιεν (-σειαν)	παίδευ-σαίμην, -σαιο, -σαιτο, -σαίμεθα, -σαισθε, -σαιντο
INFINITIVE			
		παιδεύ-σαι	παιδεύ-σασθαι
PARTICIPLE			
	masc.	παιδεύ-σᾶς, -σαντος	παίδευ-σάμενος
	fem.	παιδεύ-σᾶσα, -σᾶσης	παίδευ-σαμένη
	neut.	παιδεύ-σαν, -σαντος	παίδευ-σάμενον

subjunctive endings are identical with those of the present, but otherwise here too, except in the infinitive active and the 2sg. imperative, the “alpha-thematic” system described above holds. Note that in Attic the parenthesized variants of the optative prevail.

The aorist passive stem (Table 14) is marked by $-(\theta)\eta-$, to which in the indicative the active athematic secondary endings are added (without $-\theta-$ e.g. ἐ-κόπ-η-ν from κόπτω ‘to strike’).

Instead of a sigmatic aorist, many verbs have an (older) thematic or “strong” aorist, whose inflection to a great extent corresponds to that of the thematic imperfect or the non-indicative moods of the present. However, its stem is different from the present stem (e.g. pres. βάλλ-ω ‘to throw’ with imperf. ἔ-βαλλ-ον, but aor. indic. act. ἔ-βαλ-ον, subj. βάλλ-ω, opt. βάλλ-οιμι, imv. 2sg. βάλλ-ε, inf. βαλ-εῖν, etc.). Especially common are the aorists εἶπον ‘I said’ (suppletive of the pres. λέγω) and middle ἐγενόμην ‘I became’ (from pres. γίγνομαι or suppletive of εἶμι; but Hellenistic Greek has pass. ἐγενήθην instead). In later stages of the language, fusion with the “alpha-thematic” inflection is typical (at first 3pl. εἶπαν in place of εἶπον, later 2sg. ἔγραψες ‘you wrote’ in place of ἔγραψας from γράφω, etc.).

Table 14. Classical Greek aorist passive stem

INDICATIVE	ἐ-παιδεύ-θην, -θης etc.
SUBJUNCTIVE	παιδευ-θῶ, -θῆς etc.
OPTATIVE	παιδευ-θείην, -θείης etc.
INFINITIVE	παιδευ-θῆναι
IMPERATIVE	
sg.	παιδεύ-θητι, -θήτω
pl.	παιδεύ-θητε, -θέντων (-θήτωσαν)
PARTICIPLE	
masc.	παιδευ-θείς, -θέντος
fem.	παιδευ-θείσα, -θείσης
neut.	παιδευ-θέν, -θέντος

Much rarer are the mostly intransitive “root aorists” (unsuffixed verbal root + ending), whose inflection is similar to that of the passive aorist in -θην (1sg. indic. ἔ-βη-ν ‘I went’, subj. βῶ, opt. βάιην, etc.).

3.5.4. Future

The future (Table 15) must have arisen at least in part from an aorist subjunctive. It likewise has the tense marker -σ-, followed by the thematic (primary) endings.

The formation of the passive generally resembles the passive aorist, with the tense marker -σ- combined with -(θ)η-. However, it uses middle endings (1sg. παιδευ-θή-σομαι), just as elsewhere the future in Classical Attic, less so in the Koine, often has middle forms (e.g. φεύξομαι ‘I will flee’ beside pres. φεύγω, ἔσομαι ‘I will be’ beside εἰμί).

A future without -σ-, which looks like a present in -έω, is found with verb roots ending in liquids or nasals (e.g. μένω ‘to stay’, fut. μενῶ) and with verbs ending in -ίζω (e.g. νομίζω ‘to think’, fut. νομιῶ). This formation originated in roots like καλε- ‘to call’, in which intervocalic

Table 15. Classical Greek future

	Active	Middle
INDICATIVE	παιδεύ-σω, -σεις etc.	παιδεύ-σομαι, -ση /-σει etc.
OPTATIVE	παιδεύ-σοιμι, -σοις etc.	παιδευ-σοίμην, -σοιο etc.
INFINITIVE	παιδεύ-σειν	παιδεύ-σεσθαι
PARTICIPLE	παιδεύ-σων etc.	παιδευ-σόμενος etc.

-σ- regularly disappeared (*καλέ-σω > καλέω > καλώ) and was not restored as in παιδεύσω (by analogy with cases like δείξω = *δείκ-σω 'I will show'). The Koine here regularizes (καλέσω, νομίσω, etc.).

3.5.5. Perfect, pluperfect, and future perfect

The perfect (Table 16A) has (a) in the active a special set of endings that despite similarities with the alpha-thematic endings of the aorist are different in origin; (b) in the most productive type, and again only in the active, a stem-forming suffix -κ-; and (c) throughout a reduplication syllable containing the vowel -ε-, in which normally the initial consonant of the root is repeated (C_xε-C_x...). If this is aspirated, the unaspirated counterpart appears (e.g. τέ-θη-κα 'I have put'). In roots beginning with more than one consonant (except stop plus liquid clusters like κλ-, δρ-) or with ρ-, simple ἐ- is used (e.g. ἔ-κτι-κα 'I have founded' from κτίζω), and with an initial vowel the reduplication syllable is the same as the (lengthened) augment (e.g. ἦχα 'I have led' from ἄγω). The reduplicated perfect stem is also found in the future perfect and the pluperfect (the latter still being augmented in Classical times) (Table 16B). In the middle/passive, perfect and pluperfect take the athematic primary and secondary endings respectively. The moods of the perfect and the active future perfect are formed periphrastically with the corresponding forms of εἰμί + perfect participle (πεπαιδευκώς ὦ/έῖην/έσομαι, etc.). Occasional periphrastic forms also occur elsewhere already in Classical times.

Table 16. Classical Greek perfect and pluperfect

Active	Middle-Passive
A. PERFECT	
πε-παίδευ-κα, -κας, -κε(ν), -καμεν, -κατε, -κᾶσι(ν) (later -καν)	πε-παίδευ-μαι, -σαι, -ται, -μεθα, -σθε, -νται
INFINITIVE	
πε-παίδευ-κέναι	πε-παίδευ-σθαι
PARTICIPLE	
masc. πε-παίδευ-κώς, -κότος	πε-παίδευ-μένος, -μένη, -μένον
fem. -κυῖα, -κυῖᾶς	
neut. -κός, -κότος	
B. PLUPERFECT	
ἐ-πε-παιδέυ-κη/-κειν, -κης/-κεις, -κει(ν), -κε(ι)μεν, -κε(ι)τε, -κε(ι)σαν	ἐ-πε-παιδέυ-μην, -σο, -το, -μεθα, -σθε, -ντο

Roots ending with a dental or guttural do not have a stem-forming suffix $-κ-$; instead these sounds are usually aspirated (e.g. $τέ-ταχ-α$ ‘I have arranged’ from $ταχ-$). Other, sometimes very old, intransitive perfects belong to a “strong” type without $-κ-$, but with root ablaut (e.g. $πέ-ποιθ-α$ ‘I have trusted’ from middle pres. $πείθομαι$, $γέ-γον-α$ ‘I have become’ beside later $γεγένημαι$ from pres. $γίγνομαι$ ‘to become’ or suppletive from $εἶμι$ ‘to be’).

4. Syntax

4.1. Case syntax

The nominative is used for the subject of a clause and for attributes and predicate nominals agreeing with it. The vocative is used for address, often in combination with the particle $ὦ$.

The accusative stands for the direct object, whether affected ($ὄδον$ ὁράω ‘to see a path’), effected ($ὄδον$ ποιέω ‘to make a path’), or – also with intransitive verbs – an inner object ($ὄδον$ εἶμι ‘to follow a path’; similarly with substantivized neuter adjectives: $δεινὰ$ ὑβρίζω ‘to commit outrageous sacrilege’). Some verbs are construed with double accusative (e.g. $αἰτέω$ τινά τι ‘to ask someone for something’). The accusative further expresses extension in space or time (e.g. $τρεις$ ἡμέρας πλέω ‘to sail for three days’) and also occurs as a free accusative of relationship with adjectives, participles, or intransitive verbs ($ἀλγέω$ τοὺς πόδας ‘to have pain in the feet’, $καλὸς$ τοὺς πόδας ‘beautiful as regards the feet’).

The genitive marks possession in the widest sense (belongings, characteristics, material, etc.: e.g. $τριῶν$ ἡμερῶν ὁδός ‘a journey of three days’), and hence, as a “partitive” genitive, the assemblage/group to which something belongs (e.g. $τίς$ ἡμῶν; ‘who of us?’; post-Classically $ἐξ$ ‘out of’ + gen. instead). The genitive is also partitive with verbs of participating, touching, governing, etc., and with verbs of perception, where Greek likes to emphasize the fact that the object is only partially affected ($Περικλέους$ ἀκούω ‘to heed Pericles’, $οἴνου$ πίνω ‘to drink (some) wine’, $τῶν$ Βοιωτῶν ἄρχω ‘to rule over the Boeotians’). The prehistoric syncretism of the ablative (§3.1.1) with the genitive explains the ablatival use of the genitive with verbs of separation (later often $ἀπό/ἐξ$ ‘from/out of’ + gen.) and in comparisons ($καλλίων$ ἵππου ‘more beautiful than a horse’; but also $καλλίων$ ἢ ἵππος).

The dative indicates the indirect object, but also occurs as a free dative of advantage (‘to do something for someone’). This is the basis of its use for the agent of an action in the passive perfect, while in other tenses

of the passive the preposition ὑπό + genitive is usually used instead. Once again because of prehistoric case syncretism, the dative further assumes the functions of the earlier instrumental and locative; to the former belong the dative of manner (τούτω τῷ τρόπῳ ‘in this way’), the instrumental dative (λίθοις βάλλω ‘to pelt with stones’), and the datives of motive (εὐνοίᾳ ποιέω τι ‘to do something out of good will’) and measure (πολλῶ καλλίων ‘much more beautiful’); and to the latter the temporal dative (ταύτη τῇ ἡμέρᾳ ‘on this day’). Actual locations usually require a preposition (e.g. ἐν Ἀθήναις ‘in Athens’), but government relationships of prepositions that arose from syntactically free adverbs still reflect the ancestral assignment of cases. Thus “ablative” prepositions like παρά ‘from’ and ἐξ ‘out of’ take the genitive, “locative” prepositions like παρά ‘at, near’ and ἐν ‘in’ take the dative, and “directional” ones like παρά ‘along, toward’ and εἰς ‘into’ take the accusative.

Starting in the Koine, a striking increase in prepositional syntagms can be observed (cf. above on the genitive). This is especially noticeable in the Late Roman–Byzantine period in the dative, which in Modern Greek is replaced by the genitive or by εἰς + accusative. The periphrasis of the instrumental dative with ἐν + dative in Biblical Greek, on the other hand, may be due to Semitic influence.

4.2. Syntax of the verb

4.2.1. Voice

The active and passive voices are used much as in English. The passive occurs above all when the agent of the action cannot or is not wanted to be specified, or is less relevant. Certain verbs that are strictly speaking intransitive like ἄρχω + genitive ‘to rule over’ can also be passivized.

The middle implies a particular involvement of the subject of the verb in the action. With some verbs (esp. of personal hygiene: e.g. λούομαι ‘to wash oneself’) a directly reflexive relationship (identity of agent and patient) can be represented, but the reflexive pronoun (§3.3.5) is normally used for this purpose. More commonly, the middle expresses indirect reflexivity, in which a patient distinct from the agent is present (as direct object), but the agent is the beneficiary of the action (e.g. παρασκευάζομαι πλοῖον ‘I am preparing a ship (for myself)'). Similarly middle are verbs with a causative meaning, where the agent alters his/her own mental or physical state or where the subject non-agentively undergoes an alteration of his/her state (στρέφω ‘to turn (something)’ vs. στρέφομαι ‘to turn oneself’, ἐκπλήττω ‘to frighten (someone)’ vs. ἐκπλήττομαι ‘(intr.)

to be frightened'). Similar semantic relationships are also found in "deponent" verbs that have no active forms (e.g. αἰσθάνομαι 'to perceive').

4.2.2. Tense and aspect

The present indicative is used not only for specific and general/habitual statements about the present of the speech act, but also for atemporal utterances. It occurs in a stylistically marked fashion with non-stative verbs as a historical present, where the visualization underscores the narrative relevance of the event portrayed in this way.

The perfect also has present reference, primarily describing the current state of the subject as the result of a past action (e.g. πέποιθα 'to be convinced' as the result of past πείθομαι 'to become convinced', τέθηκα 'to be dead' from ἀποθνήσκω 'to die'). Since from the Classical period on transitive-active perfects could also increasingly be formed, in which the resulting state concerns not only the subject but also the object (e.g. γέγραφα ἐπιστολήν lit. 'I am one who has written a letter' > 'I have written a letter'), in the Hellenistic period the perfect developed gradually into a narrative past tense, which eventually became synonymous with the aorist and was ousted by it.

The specific or general future (from the point of view of the speech act) is indicated by the future (or the future perfect in the case of states whose present reference is expressed by the perfect). In the Classical period only rarely, but in the Hellenistic period more commonly, a paraphrase with μέλλω + infinitive can be used instead ('to be about to'; only late θέλω ἵνα lit. 'to want'). The Koine also knows a colloquial futuristic present.

The relationship between the past tenses (indicative) aorist and imperfect is aspectually determined. The "complexive" (or "perfective," but unrelated to the perfect) aspect of the aorist stem contrasts with the "non-complexive"/"imperfective" aspect of the present stem (pres., imperf.). The aorist expresses such past actions as are apprehended in their entirety, without their internal development being of any importance. This does not necessarily presuppose punctuality: a clause like ὁ πατήρ ἔτη τριάκοντα ὤκησε ἐν Ἀθήναις 'the father lived in Athens for thirty years' with the aorist ὤκησε of the durative verb οἰκέω is perfectly grammatical. In context, an "ingressive" interpretation of the aorist of durative verbs often results (e.g. pres. βασιλεύω 'I am king', aor. ἐβασίλευσα 'I became king').

The imperfect (and the pluperfect as "imperfect of the perfect"), in contrast, is used for a "progressive presentation," in which the action is

perceived in its individual steps or as a development. Thus the imperfect not only describes former states or repeated events, but also portrays background events pictorially, within or following which a (foreground) event takes place. A special case is represented by the *imperfectum de conatu*, in which an imperfect like ἐδίδου is to be interpreted as ‘he offered’ (not ‘he gave (repeatedly)’).

Purely aspectual – and hence without past reference – is the use of the aorist stem in the rare “gnomic aorist” (for generalized maxims), in the non-indicative moods, and in the infinitives and participles (cf. also §4.2.4, 4.2.5).

4.2.3. Moods

Factual statements, or statements presented as factual, and questions about them are made in the indicative. The indicative imperfect or aorist (according to the aspect) is used with the modal particle ἄν in irrealis (counterfactual) statements (negative οὐ; e.g. ἐποίει/ἐποίησε ἄν ‘he would do/would have done’) and for repetition in the past (ὁπότε . . . , ἔλεγε/εἶπε ἄν ‘whenever . . . , he used to say’). Without ἄν, but with introductory εἴθε/εἰ γάρ (later also grammaticalized ὄφελον, lit. ‘I owed’), the indicative expresses an unfulfilled wish (negative μή).

The subjunctive originally represents an action as subjectively expected or expectable. In clauses of command (neg. μή) the 1st person is used for demands on the self (μή τοῦτο λέγωμεν ‘let us not say that’), while the negated 2nd person of the aorist subjunctive replaces a negated aorist imperative (“prohibitive” subjunctive: ‘do not begin to . . .’). The “deliberative” subjunctive in questions expresses the hesitant thought of the speaker (τί λέγωμεν; ‘what should we say?’, ποῖ τις φύγη; ‘where can/should one flee?’).

The optative, *qua* mood of possibility, is found in main clauses in wishes assumed to be fulfillable (with or without εἴθε/εἰ γάρ, neg. μή; e.g. μή γένοιτο ταῦτα ‘hopefully that will not happen!’), but above all as the “potential” optative with ἄν (negative οὐ) to present possible actions (λέγοι τις ἄν ‘one might say’) or to formulate politely mitigated assertions (ὥρα ἄν εἶη ‘it must be time’). As the optative disappeared in the Hellenistic period, it was replaced here by e.g. an indicative future.

The imperative is the mood of command (neg. μή). However, expressions of demand can also be formulated otherwise, depending on the pragmatic situation (e.g. δεῖ/χρή + infinitive ‘one must’, verbal adjective in -τέος, potential formulations like λέγοις ἄν ‘you could speak = please

speak', οὐ μή + indicative future or subjunctive for emphatically negated future statements, etc.).

The use of moods in subordinate clauses is similar to that in main clauses, but it is also partly determined by the type of subordinate clause (cf. §4.3.2). After secondary tenses (indicative aorist, imperfect, pluperfect, historical present), a subordinate clause may contain an “oblique” optative instead of an indicative or subjunctive (but this optative too disappears in the Koine). Similarly, in the Classical period the “prospective” subjunctive is restricted to subordinate clauses (with ἄν, in part merged into the conjunction: εἰ + ἄν = ἑάν, ὅτε + ἄν = ὅταν, etc.); it refers to a future or general state of affairs (e.g. ὅστις ἄν τοῦτο ποιήσῃ, ζημιωθήσεται/ζημιούται ‘whoever does this will be punished’). For the “iterative” optative in subordinate clauses see §4.3.2.

4.2.4. Infinitive

Infinitives and infinitive constructions occur as independent clauses only exceptionally (e.g. as jussive infinitives in legal language). They are normally obligatory constituents depending on (a) verbs of wishing, desiring, commanding/prohibiting, ability, etc.; impersonal expressions like δεῖ/χρή ‘one must’; and adjectives of ability and quality (e.g. δεινὸς λέγειν ‘skilled in speech’, βούλομαι ἀπελθεῖν ‘I want to depart’) (“dynamic infinitive,” neg. μή); and (b) verbs of thinking and speaking, where they imply the actual or supposed factuality of the event less explicitly than subordinate clause constructions e.g. with ὅτι ‘that’ (“declarative infinitive,” neg. οὐ: e.g. ἔφη ἀφικέσθαι ‘he said he (himself) had come’; for ὅτι see §4.3.2). While in the dynamic infinitive the use of the aorist or present variant is aspectually determined, and the infinitive future does not occur (present βούλομαι δειπνεῖν vs. aorist βούλομαι δειπνήσαι ‘I want to eat’ according to how greatly the act of eating is of interest: §4.2.2), in the declarative infinitive the infinitive aorist mostly conveys anteriority, the infinitive present simultaneity, and the infinitive future, futurity. Already in the Koine the dynamic infinitive is in many places encroached upon by a purpose clause with ἵνα + subjunctive, and the declarative infinitive is increasingly replaced by ὅτι (later πῶς).

When and only when the subject of the declarative infinitive is different from the subject of the superordinate verb, an *Accusativus cum Infinitivo* construction is used in Classical Greek, with the subject of the infinitive appearing in the accusative (e.g. ἔλεγε τὸν πολίτην ἀφικέσθαι

'he said that the citizen had arrived'). If this construction is passivized, a *Nominativus cum Infinitivo* results (e.g. ὁ πολίτης ἀφικέσθαι ἐλέγετο 'it was said that the citizen had arrived').

The substantivized infinitive with article is already found in the Classical period, but becomes particularly common in (literary) Hellenistic Greek. When combined with prepositions it can even replace entire subordinate clauses; its subject too is in the accusative (e.g. πρὸ τοῦ ἀναβαίνειν τοὺς μάρτυρας 'before the arrival of the witnesses = before the witnesses arrive'). Worth mentioning, finally, is the infinitive of purpose after verbs like δίδωμι 'to give' (e.g. δίδωμί σοι τοῦτο φαγεῖν 'I give you this to eat').

4.2.5. Participles

Participles or participial constructions occur obligatorily after verbs of knowing and perceiving, and in part also after verbs of showing and announcing (e.g. τὸν Μῆδον ἴσμεν/ὀρώμεν ἐλθόντα 'we know/see that/how the Medes are coming' = *Accusativus cum Participio*; also *Nominativus cum Participio* when the subject of the participle and the finite verb is the same: ὀρώμεν ἀδύνατοι ὄντες 'we see that we are powerless'); after verbs of emotion (e.g. χαίρω διαλεγόμενος ὑμῖν 'I am happy to talk to you'); after verbs that express the manner of being in a given state (e.g. τυγχάνεις παρών 'you happen to be present'); and after "phasal" verbs (e.g. ἄρχομαι/παύομαι λέγων 'I begin/stop speaking').

Even more common are *Participia coniuncta*. Such participles modify another concordant clause component, and various semantic shadings are possible; these are sometimes clarified by added particles (causal ἅτε/ὥς, concessive καίπερ, purpose ὥς + future participle, etc.; thus e.g. ἀκούσας ταῦτα ὁ Ἀστυάγης τοὺς Μῆδους ὥπλισε 'after/because he had heard this, Astyages armed the Medes'). The "genitive absolute" is related, in which a construction of a noun/pronoun + participle in the genitive that is not otherwise anchored in the clause is used for adverbial expansion (τῶν Μῆδων ἀποθανόντων οἱ Ἕλληνας ἔχαιρον 'after/when/because the Medes had died, the Greeks rejoiced'). Present participles convey simultaneity, aorist participles anteriority, and future participles posteriority with respect to the superordinate verb.

Like adjectives, participles can also modify a substantive (οἱ νῦν ὄντες ἄνθρωποι 'today's people', lit. 'the now being people'; also substantivized, e.g. ὁ ἄρχων 'the ruling = ruler'). Paraphrases of finite verbs using participles + εἶμι 'to be' or ἔχω 'to have' are still exceptional in the Classical period (except in the perfect: §3.5.5).

4.3. Clause structure

4.3.1. Concord, word order, coordination

Subject and predicate (including a predicate noun) agree, as far as possible, in person, number, case, and gender. The peculiar use of a finite verb in the singular with a subject in the neuter plural is very old (ταῦτα καλὰ ἐστὶν ‘this is beautiful’). In nominal clauses the copula εἶμί is often omitted, especially in impersonal expressions like αἰσχρὸν (ἐστὶ) ‘it is shameful’.

Within a clause the order of components is “free” in the sense that, say, neither the verb nor the subject always comes first. The following order of pragmatic constituents can be considered basic for Classical Greek: (1) Topic (= information that serves as an orientation framework), (2) Focus (= new information), (3) Verb (if distinct from (1) or (2)), (4) Other elements. Enclitics tend to occur in second position in the clause. However, because they often depend on the verb, the order Verb – Subject – Object becomes increasingly set during the Hellenistic period.

The concatenation of clause elements and entire clauses is only rarely asyndetic; more often one or several clause- and discourse-structuring particles are used (καί ‘and’, (μέν-)δέ ‘(on the one hand) but (on the other hand)’, οὖν ‘thus’, τοίνυν ‘therefore’, δῆ ‘accordingly’, etc.).

4.3.2. Subordination

As subordinate clauses we find subject and object clauses that are required by a verb phrase, attributive clauses (relative clauses), and adverbial clauses as free complements. Among the former are assertive clauses following verbs of saying, perceiving, etc., which are usually introduced by ὅτι or ὡς ‘that, how’ (+ mood of an assertion or oblique optative: §4.2.3) (e.g. εἶπεν ὅτι ψεύδεται/ψεύσαιτο ‘he said that he was lying’), clauses of desire following verbs of caring (with ὅπως (μή) + indicative future, or in the Classical period more rarely subjunctive; e.g. ἐπιμέλεσθαι ‘to see to it that’) and following verbs of fearing (e.g. φοβεῖσθαι μή/μή οὐ + subjunctive/oblique optative ‘to fear that/lest’), and dependent interrogative clauses (+ mood of an independent question or oblique optative: e.g. ἠποροῦμεν ὅ τι ποιῶμεν/ποιοῦμεν ‘we did not know what we should do’).

Among adverbial clauses are causal clauses (conjunctions include ὅτι, διότι ‘because’, ἐπεί, ἐπειδὴ ‘since’, neg. οὐ), consecutive clauses (ὥστε + indicative (neg. οὐ) for actual consequences, ὥστε + infinitive (neg. μή) for potential consequences), purpose clauses (ἵνα, ὅπως (μή) + subjunctive/oblique optative), conditional and concessive clauses, and temporal clauses.

Table 17. Classical Greek conditional clause types

	Protasis ('if...')	Apodosis ('then...')
INDEFINITE	εἰ + indicative	mood according to type of statement
PROSPECTIVE	εἴν + subjunctive	indicative future (or imperative) = future indicative present = general
POTENTIAL	εἰ + optative	(potential) optative + ἄν
IRREALIS	εἰ + indicative imperfect/aorist	(counterfactual) indicative imperfect/aorist + ἄν

Among conditional clauses (conjunction εἰ 'if' or εἴν, neg. μή) and the parallel concessive clauses (conjunction εἰ/εἴν καί 'although', καὶ εἰ/εἴν 'even if') the types shown in Table 17 appear according to the degree of certainty involved. The prospective construction is also found in future or general temporal clauses (conjunctions e.g. ὅτε (ὀπότε) or ὅταν (ὀπόταν) 'when, whenever', ἐπεὶ/ἐπειδὴ or ἐπὶ/ἐπειδὴν 'when, after', ἕως (ἄν) 'until', ἀφ' οὗ 'since', ἐν ᾧ 'while'), as in ὅταν τις ἀποθάνῃ, πάντες λυποῦνται 'when someone dies, all are saddened'. Temporal clauses referring to the past, on the other hand, are in the indicative, or with repeated events in the iterative optative (ὀπότε τις ἀποθάνοι, πάντες ἐλυποῦντο 'whenever someone died, all were saddened'). The conjunction πρὶν 'before' operates like the other temporal conjunctions after negative main clauses, but after positive ones it requires an infinitive construction (τοῦτο ἐγένετο πρὶν πάντας παρεῖναι 'this happened before all were there').

Similar to the adverbial clauses are relative clauses with conditional, causal, consecutive, or purpose (subordinate) meaning; thus, for example, conditional relative clauses too can have an indefinite, prospective, potential, or counterfactual function. However, purpose relative clauses require in the Classical period the indicative future, not, as later, the subjunctive of purpose clauses. Relative clauses without such nuances are construed like main clauses. The attraction of the relative pronoun to the case of its antecedent is quite common (e.g. σὺν τοῖς θησαυροῖς οἷς (instead of οὗς) ὁ πατήρ κατέλιπε 'with the treasures that my father left behind'). Occasionally the antecedent itself is incorporated into the relative clause (e.g. τούτους ἐποίησεν ἄρχοντας ἧς κατεστρέφετο χώρας 'these he made rulers of the land that he conquered').

5. Word formation

Only a few particularly productive types of the many derivational patterns can be mentioned here. Deverbals include the *nomina agentis* in

-της, -του (alongside fem. -τρια/-τρίς: e.g. ποιητής/ποιήτρια 'poet(ess)' from ποιέω 'to make'), which replace older -τήρ/-τωρ; the *nomina actionis* in -σις, -σεως (also -(σ)μός), which are popular in periphrases like μάθησιν ποιέσθαι = μαθηθάνειν 'to learn'; and the *nomina rei actae* in -μα, -ματος (ποίημα 'poem'). Denominals include the abstracts in -ία/-εία (ἀδικία 'injustice' from ἄδικος, also deverbal beside verbs in -έω: ναυμαχία 'sea battle' next to ναυμαχέω); -(ό)της, -(ό)τητος fem. (μελανότης 'blackness' from μελαν-); -σύνη (δικαιοσύνη 'justice' from δίκαιος); and -ική (ρήτορική 'rhetoric' from ῥήτωρ 'orator'), the latter representing the substantivized feminine of one of the many denominal adjectives in -ικός. From the Classical period on, -ικός competes with the older but still productive relational suffix -ιος (-αιος, -ειος); and in the form -τικός (which originally belonged to nouns in -της), it is also used deverbally (διαλεκτικός from διαλέγομαι 'to converse').

Further important adjectival suffixes are -ινος on adjectives of material, which in part replaces older -εος > -οῦς (e.g. ξύλινος 'wooden'); the poetic -εις, -εντος, which indicates abundance of something (ρόδοεις 'rich in roses'); and -ώδης, -ώδους (ἀνδρώδης 'manly' from ἀνήρ 'man'); important substantival suffixes are -ίς, -ίδος (Hellenistically also -ισσα) for motionsfeminina (in place of the old *-ya: §3.1.3), esp. in the suffix combination -τρίς (see above and cf. ἀύλητρίς 'flute girl' from ἀύλω 'to play the flute'); denominal -της, -του in names of professions and -ίτης/-ιάτης in ethnonyms (ναύτης 'sailor' from ναῦς 'ship', Ἀβδηρίτης 'man from Abdera'); -ιον, -ίδιον, -άριον, -ύλλιον, and -ίσκος in diminutives (οικίδιον 'little house' from οἶκος); and the aforementioned -τήρ, which survives in names of tools (λαμπτήρ 'lamp, torch' from λάμπω 'to shine'), and from which -τήριον especially in names of locations is derived (δεσμοκτήριον 'prison'). Based on adjectives are adverbs in -ως (καλῶς 'beautifully').

An old verbal suffix *-y(e/o)-, as originally added to stems in -ιδ-/-αδ-, constitutes the basis for the verbs in -ίζω/-άζω (< *-id-ye/o-, *-ad-ye/o-: e.g. ἐλπίζω 'to hope' from ἐλπίς 'hope'). These suffixes can then appear on the most diverse noun stems and express all sorts of semantic relations: cf. δειπνίζω 'to host' (from δειπνον 'meal'), περσίζω 'to speak in Persian, to behave like a Persian', or ἀκοντίζω 'to throw a spear' (from ἄκων 'spear'). Substantives likewise underlie most vocalic verbs in -έω (κοσμέω 'to adorn' from κόσμος 'order, adornment'), -άω (τιμάω 'to honor' from τιμή 'honor'), -όω (δουλόω 'to enslave' from δούλος 'slave'), and -εύω (παιδεύω 'to educate' from παῖς 'child').

Finally, one may note the ease with which compounds are formed. Among them we find determinative compounds, in which the first component specifies a nominal second component (e.g. ἡμί-θεος 'demigod' from ἡμι(σος) 'half' and θεός 'god'); possessive compounds, which express a property that someone/something has (πολυ-ἄργυρος 'possessing

much silver' from πολὺς 'much' and ἄργυρος 'silver'; also compounds like ἄδικος 'unjust', lit. 'possessing no justice (δική)'); and verbal governing compounds with a verbal first or second component that "governs" the other component (e.g. as object: φερέ-νικος or νικη-φόρος 'bringing victory' from νίκη 'victory' and φέρω 'to bring'). Verbs are derived from nominal compounds on the models already described (e.g. ψευδο-μάρτυς 'false witness' → ψευδο-μαρτυρέω 'to bear false witness'). True verbal compounds, meanwhile, are only formed from verb + (in Homeric Greek often still free-standing) preposition (= "preverb") (e.g. εἰσ-φέρω 'to carry in').

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