The Birth of Grammar in Greece

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Grammar as one understands it today gives an account of the system of rules governing the construction of syllables, words, and sentences in a certain language. The science thus called was independently—and very differently—developed at about the same time in ancient India and Greece: Sanskrit grammar is the work of Pāṇini (*fl. c.* 400 BC); Greek grammar is the creation of Chrysippus of Soli (*fl.* 240 BC). Both Pāṇini and Chrysippus not only inaugurate a new field but also represent the culmination of centuries of linguistic thought: what distinguishes them from their predecessors is that they, for the first time, integrated the results obtained into one theory.

The term "grammar" itself is of Greek origin: literally, ἡ γραμματική (or in full: ἡ γραμματικὴ τέχνη) is the skill, expertise, or knowledge belonging to a person considered γραμματικός; and the adjective γραμματικός is derived from the noun γράμμα [letter], which in turn derives from the verb γράφειν [write, draw]. Over time, the meaning of γραμματικός and thus also of γραμματική changed. One can distinguish four stages:

i. In the fourth century BC, when γραμματικός first appears, it is used to describe someone who knows the "letters": a person versed in grammar, that is, knows how to read and write, can set apart vowels, consonants, and semiconsonants, and suchlike (e.g. Pl. *Cra.* 431e; *Phlb.* 18d; *Soph.* 253a).

ii. From the third century BC, γραμματική comes to be used for what one would now call philology and criticism (e.g. Dion. Thrax ap. Sext. Emp. *Math.* 1.57; cf. Di Benedetto 2007: 2.522). Thus the oeuvre of Aristarchus of Samothrace (*fl.* 160 BC)—ὁ γραμματικώτατος [the most grammatical] to some (Ath. 15.12.2)—consists in editions of and commentaries on Homer, Hesiod, Archilochus, Alcman, Pindar, Herodotus, and others, as well as in a number of critical treatises on Homeric questions (see e.g. Pfeiffer 1968: 210).

iii. From the early first century BC, the content of the grammarians' discipline is enlarged; in particular, it includes a new so-called technical [τεχνικόν] part or tool, which corresponds to what one would now term grammar (e.g. Asclepiades ap. Sext. Emp. *Math.* 1.91; 1.252; cf. Blank 1998: 146). A "technical grammarian" such as Apol-

lonius Dyscolus (*fl.* AD 140) no longer edits texts nor comments on them—he composes treatises on the elements, the parts of speech, etc. (*Suda* α 3422; cf. Ap. Dy. *Con.* 213.10).

iv. From the end of antiquity, the τεχνικόν progressively comes to be seen as the γραμματική par excellence (e.g. Michael Sync. *Synt.* 46 [*c.* 813]). Thus Priscian (*fl.* 500), the author of, inter alia, a voluminous and immensely influential Latin grammar, can now refer to Apollonius as *summus artis auctor grammaticae* [the greatest authority on grammatical science] (*Inst.* 8.439.22). It is this use of γραμματική which has given rise to the modern notion of grammar.

(Two precisions to the above quadripartition: first, the use of the term evolved gradually, of course; and secondly, the creation of a new use did not, in this case, entail that the older uses passed away entirely.)

Now some might argue the semantic shift just outlined makes it impossible to write a historiography of Greek grammar from Plato to, say, Planudes (*fl.* 1300) insofar as there does not exist a single discipline called γραμματική, the history of which one could study. Yet to renounce the project entirely would be rash. For there still remains the possibility of focusing on one relatively stable acception of the term γραμματική, and studying the history of that discipline. Furthermore, one ought not to forget that past nomenclatures are immaterial to the question whether the inquiry is the same as, or similar to, the one practised later. Hence, if one intends to study the history of grammar qua science of language, one should not want to restrict oneself to studying the history of the τεχνικόν and of γραμματική in its last use. For it is well known, and I shall show below, that the subject as such was first recognised by the Stoics.

Because the Stoics' inquiry was done under the umbrella of philosophy, it is often declared—generally without further argument—that theirs was not yet an "autonomous science" (e.g. Di Benedetto 2007: 2.497). Some scholars have even gone so far as to argue that philosophy "blocked" the emancipation of grammar (e.g. Ildefonse 1997: 15). Both claims are anachronistic and false, for they presuppose that philosophy and science are radically different in nature—which, at least in antiquity, they were not: any historiography of biology, for example, starts with Aristotle, who invented the discipline (see e.g. Lennox 2001: xx). As for the alleged lack of autonomy, depending on how one understands the notion, this need not necessarily be a point of criticism: after all, for half a century now most linguists who reflect on such questions have considered their discipline a branch of cognitive science (e.g. Chomsky 1968: 1).

Grammar—and from now on, I shall use that term to speak of linguistic science—was one of the pillars of education in Antiquity and the Middle Ages. Thus one encounters examples of grammatical analysis in ancient texts of all genres—from rhetoric and philosophy to medicine and theology. Its influence went far beyond the

Greek world. Latin, in the late second century BC, became the first language to which the Greek system was adapted; and for the next six hundred years, Latin grammarians continued to be inspired by their Greek colleagues (the reverse does not hold). In the sixth and seventh centuries, the *Techne* (a brief school grammar) and other works were translated into languages as diverse as Syriac, Armenian, and Georgian. In each case, the resulting grammars were the first for that language. And so it spread. The Greek heritage, then, was vast.

One is so used to speaking of nouns and pronouns, of the first person and the past tense, of case and gender, that it may sometimes prove difficult to remember that these are all technical notions we inherited from antiquity. They may—or may not—have been appropriate for describing Ancient Greek. Yet to decide whether they are suited to other languages, or to language in general, one first has to know what they meant, and why they were introduced. The study of the origins of the study of language is thus indispensable to the study of language itself.

The Beginnings

Some situate the genesis of grammar in the Dark Ages, regarding the creation of the Greek alphabet, in the late ninth century BC, as "the first achievement of linguistic scholarship in Greece" (Robins 1997: 16). This is confused on two counts: First, on such an inclusive conception of linguistic scholarship, one surely ought to start at least seven hundred years earlier, for the creation of a syllabary—Linear B (see Chapter 1)—requires linguistic proficiency, too—indeed, *every* script presupposes some linguistic analysis. Secondly, the changes in respect to the Phoenician consonantal alphabet are but few: the graphemes for the glottal and pharyngeal obstruents /ʔ ʕ/ —which do not occur in Greek—were set to represent the vowels /a o/; and with the grapheme for /ħ/ already assigned to Greek /h/, the grapheme for /h/ was set to represent the vowel /e/. Otherwise the Greek alphabet closely resembles its model; even the order of the letters and their names are the same (see Burkert 2005: 294).

In the fifth and fourth centuries BC, a variety of linguistic phenomena were for the first time identified and labeled and, sometimes, explained. The Sophists, in particular, appear to have shown an intense interest in language. (Their writings on the subject have been lost, so that one is dependent on later authors for information.) Protagoras (*fl.* 450 BC), the most celebrated of that heterogeneous group, "divided up the kinds of names [τὰ γένη τῶν ὀνομάτων]: male [ἄρρενα], female [θήλεα], and inanimate [σκεύη]" (Arist. *Rh.* 1407b6); "distinguished the parts of time [μέρη χρόνου]" (Diog. Laert. 9.52); and "divided speech [λόγος] into four kinds: prayer, question, answer, order" (ibid. 9.53). There can be little doubt that one has here the ancestors of the grammatical categories of gender, tense, and sentence.

Plato (*fl.* 380 BC) is the most important figure in the prehistory of grammar. On every linguistic level—element, syllable, word, sentence—the distinctions he draws, the terms he introduces, the arguments he advances (and also those he thinks he refutes) have left their imprint on the Stoic and thus the Apollonian system. An illustration—one influential passage—must here suffice: When, in the *Sophist*, he analyses λόγος, he distinguishes between names [ὀνόματα] and verbs [ῥήματα], characterising them in semantic terms: a verb is "an indication applied to actions [ἐπὶ ταῖς πράξεσιν]", whereas a name is "a vocal sign applied to those performing them" (262a). To say something, then, one cannot just utter a list of names or of verbs: the smallest sentence [λόγος] is a combination [συμπλοκή] of a name and a verb (262b–d). This brilliant—and now seemingly trivial—insight permits Plato to provide a precise account of truth and falsehood: to be true, a (simple) sentence must say of "what is that it is [τὰ ὄντα ὡς ἔστιν]": Θεαίτητος νεῖ, for instance, is false insofar as what is said or predicated of Theaetetus is not something that he is—for Theaetetus is not swimming now, but talking to the Stranger (263a–d; cf. Frede 1992: 412).
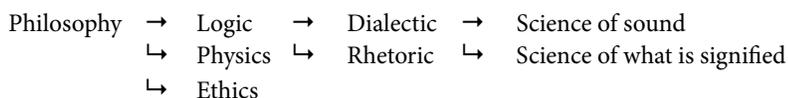
Aristotle (*fl.* 340 BC) touches on matters of language in many of his writings. The closest he comes to presenting his ideas in a systematic fashion is in Chapter 20 of the *Poetics.* He there first lists, and then discusses the several parts of speech [τὰ μέρη τῆς λέξεως]—"element [στοιχεῖον], syllable [συλλαβή], connective [σύνδεσμος], name [ὄνομα], verb [ῥῆμα], article [ἄρθρον], case [πτῶσις], and saying [λόγος]" (1456b20). Elements, syllables, names and verbs, and sayings (or sentences) are known from Plato (e.g. *Cra.* 424e). Cases, for Aristotle, are modifications of a name or a verb: nominal cases include both inflectional and derivational modifications, as one would now call them—that is, not only forms such as φίλου [of a friend (gen. sg.)] or φίλοι [friends (nom. pl.)] but also words like φιλικός [friendly (adj.)] and φιλικῶς [friendly (adv.)]; verbal cases are, for example, βάδιζε [Walk!] and βεβάδικα [I have walked] (e.g. *Poet.* 1457a18; *Cat.* 1a13; *Int.* 16a32; 16b16; cf. Vahlen 1914: 120). Aristotle's class of connectives comprises words such as δέ [but] (e.g. *Poet.* 1457a4; *Rh.* 1407a20); his class of articles, it appears, words like ὅδε [this one] (the text is corrupt—but see Anaximen. Lampsac. *Rh.* 25.4; Dexipp. *in Cat.* 32.30). Articles and connectives differ from names and verbs in that they lack signification. They are like glue, explain the commentators: they cannot signify anything on their own—their rôle is to "co-signify along with the other parts of saying" (Dexipp. *in Cat.* 32.24; see Barnes 2007: 231).

Chrysippus

Chrysippus, a native of Soli in Cilicia, became the third head of the Stoa, after Zeno and Cleanthes, in 230 BC. His position within the School was *sans pareil*—thus the

quip "Were there no Chrysippus, there would be no Stoa" (Diog. Laert. 7.183). With an oeuvre of over seven hundred books, he was also one of the most prolific authors antiquity had seen. What remains are a few hundred "fragments" or snippets of text: a handful of papyri—notably of his *Logical Investigations* (*PHerc.* 307; cf. *FDS* 698)—, a few dozen quotations, and many reports of mostly much later sources which in general are hostile or incompetent or both. There are, in addition, a few thousand anonymous fragments—pieces attributed to the Stoics in general. Scholars ascribe many of them to Chrysippus, too. Though in theory this seems the right thing to do, in practice the selection is often exceptionally difficult. Chrysippus' system has not yet been reconstructed satisfactorily; to this day no consensus has been reached on even the basic issues (see e.g. Frede 1994a and Gaskin 1997 on cases).

Philosophy, according to Chrysippus, divides into three species: logic [λογική] studies λόγος, that is, both language and reason; physics investigates the world; and ethics examines how one can live in accordance with the world (Diog. Laert. 7.39). Logic divides into the two sciences of dialectic and rhetoric (7.41). Dialectic, in turn, subdivides into a part concerned with sound [φωνή], and a part dedicated to the items signified [σημαινόμενα] (7.43). In a diagram:

Philosophy → Logic   → Dialectic → Science of sound
            ↪ Physics ↪ Rhetoric   ↪ Science of what is signified
            ↪ Ethics

The study of dialectic is indispensable to one's success in life—even the Wise Man, that elusive creature, is a dialectician (7.83): for otherwise he "would not be infallible in argument" (7.47).

At the heart of Chrysippus' reflection on language stands the theory of what he called the elements of language [τὰ τοῦ λόγου στοιχεῖα]—name, verb, etc. That theory is a self-contained part of his science of sound. Sound [φωνή], he claims, is either writable [ἐγγράμματος] or unwritable [ἀγράμματος]: writable sound is speech [λέξις], for this is the only sound that can be written down with letters [γράμματα]; unwritable sound, on the other hand, is mere noise [ἦχος] such as the crash of thunder. Speech that is significant [σημαντικός] is what one calls language [λόγος] (Diog. Laert. 7.55–57; cf. Ax 1986: 138).

Speech is sound which can be divided into smaller items which themselves can be divided into smaller items which... The smallest parts of this division—the elements of speech [τὰ τῆς λέξεως στοιχεῖα]—are the letters (Diog. Laert. 7.56). When letters are constructed with one another, they form syllables [συλλαβαί]; syllables, in turn, can be constructed with one another to form words [λέξεις]; and words constructed with one another form sentences [λόγοι]. Language thus exhibits three degrees of complexity.

A letter, then, is a part of a syllable—but not any part. A letter is a part of a syllable that does not have any parts itself. For example, the sounds represented by ε and τ are said to be letters; I shall refer to them as /e/ and /t/. Hence the sound corresponding to τε—henceforth /te/—could not count as a letter because there are two parts to it, viz. /t/ and /e/. Note, however, that /te/ could qualify as a part of a syllable, for instance if one analysed the word στέγη. It is because the sound /e/ does not have any parts itself that one considers it a letter. "Wait a moment," someone might object. "Surely one can split it up further. Suppose your utterance lasts one second. Mine will last just half a second. Hence the sound /e/ does have parts and is not a letter." Well, that is true as far as the argument goes. It does not apply to the present case, though: for the point is that /e/ does not have any part that would count as a part of a syllable. The short and the long /e/—/e/ and /e:/—do not count as two different parts of a syllable. Suppose we both pronounce /te/ in our way, once with a long and once with a short /e/. Surely both would agree that they have produced twice the same syllable. By contrast, were I to produce the sound /te/ and you the sound /de/, there would seem to be a difference. In point of fact, the two Greek words which correspond to the two syllables in question—τε and δέ—do not mean the same: the one means "and", the other, "but". Hence the two component syllables could not be the same. Hence the two component sounds /t/ and /d/ constitute two different letters.

Accordingly, one should define the letter as follows (cf. *schol. Techne* 316.24; Gal. *PHP* 8.2.5):

For any sound *x*, *x* is a letter [γράμμα] if, and only if, *x* is a smallest part of any syllable in which *x* may occur.

How many letters are there? That is an empirical question. The traditional answer is twenty-four (Diog. Laert. 7.56; cf. Sext. Emp. *Math.* 1.100.3; see Blank 1998: 154). These letters can be ordered by various relations. Following again the tradition, Chrysippus divided them into two subsets: the seven vowels [φωνήεντα], and the seventeen consonants [σύμφωνα]. The criterion for inclusion is whether a letter may be uttered alone—or rather, whether when uttered alone it may constitute a syllable (cf. *schol. Techne* 500.23). The condition is straightforward: letters were defined as the smallest parts of a syllable; if one desires to differentiate them further, it seems reasonable to investigate the contribution each letter makes to the constitution of a syllable.

One may look at the syllable from two different viewpoints. On the one hand, a syllable appears to be a construction of letters. But not any construction. To give an example, νυν—that is, the sound corresponding to it—counts as a syllable, whereas νχυδφ does not. To know which letters, in a syllable, may be combined with which demands a fair amount of work. Vowels, as we have just seen, are peculiar in that they can constitute a syllable on their own. Such a syllable would thus have only one

part, namely itself: ἠώς [dawn], for instance, has two syllables, the first of which consists in the element η.

On the other hand, the syllable seems to be the result of a partition of the next greater unit, viz. the word (cf. Gal. *PHP* 8.2.5). Yet a syllable is not any part of a word. Take the word Σωκράτης [Socrates]. Someone might want to distinguish here the two parts σωκρα and της. The first part, however, is not really a part of the word Σωκράτης but rather two parts in one. The objection is the same as in the case of the letters; and the answer, too. One may thus define the syllable as follows:

x is a syllable [συλλαβή] if, and only if, *x* is a smallest part of a word.

Notice that a word can have only one part, that is, consist of a single syllable: such an example would be the sound corresponding to νῦν [now].

Words, too, can be described under two aspects. On the one hand, as just illustrated, words are a construction of syllables (cf. Diog. Laert. 7.192). On the other hand, they are themselves parts of yet another entity—the sentence. Thus:

x is a word [λέξις] if, and only if, *x* is the smallest part of a sentence.

Why "smallest"? is, say, γυνὴ ἐρᾷ [a woman loves] not a part of the sentence γυνὴ ἐρᾷ κυνός [A woman loves a dog]? Well, of course, it is; yet as in the case of the parts of a word or of a syllable, there is no use in taking into account alternative partitions—Chrysippus appears to believe that syntactic relations of any kind apply only to the ultimate constituents.

Words—all words—signify. That is why Chrysippus insisted on calling the different subsets not the parts of speech but the elements of language [τὰ τοῦ λόγου στοιχεῖα]: for words are peculiar in that their significates constitute the semantic atoms, as it were, out of which the significates of sentences and other complex structures will be built (cf. *schol. Techne* 514.36).

Chrysippus recognised five elements of language: articles [ἄρθρα] such as the definite οὗτος [this one] or the indefinite τις [someone]; names [ὀνόματα] such as Δίων [Dio]; appellatives [προσηγορίαι] such as κύων [dog]; verbs [ῥήματα] such as περιπατεῖν [walk]; and connectives [σύνδεσμοι] such as καί [and] (Diog. Laert. 7.57). Connectives signify what is called a connective [σύνδεσμος], too (e.g. Diog. Laert. 7.71; cf. Ap. Dy. *Con.* 214.4; 248.1). Verbs signify a predicate [κατηγόρημα] (e.g. Diog. Laert. 7.58; 7.70). Appellatives, names, and articles signify a case [πτῶσις] (e.g. Diog. Laert. 7.70; Sext. Emp. *Math.* 11.29)—or alternatively: appellatives signify a common quality [κοινὴ ποιότης]; names, a peculiar quality [ἰδία ποιότης]; and articles, it appears, a substance [οὐσία] (Diog. Laert. 7.58). (A substance, for the Stoics, is a bit of matter; a peculiar quality is what makes a certain bit of unqualified matter the unique thing it is; and a common quality is constitutive of the thing it qualifies, but,

in a sense, not peculiar to it insofar as there may be, and generally are, other things which have the same quality.)

A sentence is a construction of words. Occupying the last place in the hierarchy of writable sound, it cannot be characterised as being a part of something else. Which is why it is defined semantically:

x is a sentence [λόγος] if, and only if, *x* signifies a complete sayable [λεκτόν].

Consider, for example, the sentence Δίων τρέχει [Dio runs]. The name Δίων signifies the case Dio; the verb τρέχει signifies the predicate run. When the two words are constructed together, they signify the statable [ἀξίωμα] or state of affairs that Dio runs (Diog. Laert. 7.65; cf. Frede 1994b). States of affairs constitute one kind of sayable [λεκτόν]. Another such kind are questions: for example, the sentence ἆρα Θέων τρέχει; signifies the question whether Theo runs. One also finds commands, oaths, etc. (Diog. Laert. 7.76; cf. Barnes 1999: 200). Any sound signifying a complete sayable therefore counts as a sentence. If a single word does so, it counts as a sentence, too. Examples of a one-word sentence include verbs in the imperative like λέγε [Speak!], and nouns in the vocative such as Πάτροκλε [Patroclus!].

Chrysippus refers to the words and sentences one utters as τὰ σημαίνοντα [the signifiers] (Diog. Laert. 7.62). The items signified by the signifiers are called τὰ σημαινόμενα [the significates] or τὰ πράγματα [the things] (ibid.): for example, in the sentence Δίων τρέχει, these are the state of affairs that Dio runs and its constituents, viz. the case Dio and the predicate run.

Truth and falsehood do not belong to sentences, but to states of affairs: a state of affairs is true if it obtains or is the case [ὑπάρχει], and false otherwise (e.g. Sext. Emp. *Math.* 8.85). To know whether a certain state of affairs obtains, one has to look at the world. When assessing Δίων τρέχει, for example, one will have to determine whether the predicate run is truly said of the case Dio—one will try to ascertain whether Dio is now running.

A negative sentence such as οὐ Δίων περιπατεῖ is simple according to Chrysippus: indeed, it signifies a negative [ἀποφατικόν] state of affairs, viz. the simple state of affairs which obtains if it is not the case that Dio walks (Diog. Laert. 7.69; cf. Frede 1974: 70). Chrysippus also recognises non-simple states of affairs: a complex sentence such as Δίων τρέχει καὶ Θέων περιπατεῖ, for example, signifies the complex state of affairs that Dio runs and Theo walks (ibid.).

Logically speaking, the article οὗτος, the name Δίων, and the appellative ἄνθρωπος signify the same, viz. a case. From a physical viewpoint, however, their semantics is not the same: whereas οὗτος, for example, signifies the mere matter of which Dio consists, Δίων signifies his peculiar quality. Since according to Stoic doctrine Dio's substance and his peculiar and common quality are bodies, cases should be considered corporeal, too; they are thus not sayables.

Verbs signify a predicate, which is an incomplete sayable, and thus incorporeal. Take the verb in Δίων τρέχει. Plainly it could not signify a body. For suppose τρέχει signified Dio's running (a disposition Chrysippus considers a body): then whenever one said Δίων τρέχει, one would speak truthfully. There is, of course, a link between the verb, the incorporeal predicate, and the corporeal disposition of running: the predicate run, which is signified by the verb τρέχει, is true of something if, and only if, that thing has the disposition of running.

Connectives appear to function like verbs in that the connective they are said to signify must be incorporeal and thus an incomplete sayable. For were the connective a body, the resulting complex state of affairs would always obtain whatever the circumstances—which is absurd.

Chrysippus' theory of writable sound constitutes a generative grammar—from the set of the twenty-four letters (and with the help of three sets of rules), one can generate [γεννᾶν], first, syllables, then words, and then sentences (Gal. *PHP* 8.3.13; cf. *schol. Techne* 514.36). On the level of sound alone, there thus exist three syntaxes. His lost writings—three works in eight books—and the number of fragments preserved suggest that Chrysippus focused especially on the syntax of the elements of language (cf. Diog. Laert. 7.192). Let me give a brief specimen of how the reconstruction of that part proceeds:

None of the syntactic rules is directly preserved. To some extent, however, one can derive them from passages where they are presupposed. Consider, for example, the definitions of the elements of language and of their significates—our sources happen to confuse the two (e.g. Plut. *Quaest. Plat.* 1009c; *schol. Techne* 356.10). On the linguistic level, the few definitions that we have are all purely semantical: the verb, for instance, is defined as signifying a predicate (e.g. Diog. Laert. 7.58; *schol. Techne* 161.7). Yet in Chrysippus' eyes the elements of language must have certain syntactic properties themselves, for otherwise he would not have written at least two books on their construction [σύνταξις] (Dion. Hal. *Comp.* 4.20; cf. Alex. Aphr. *in An. pr.* 404.7). On the ontological level, the definitions are more informative: the predicate, for instance, is defined as follows:

ἔστι δὲ τὸ κατηγόρημα … λεκτὸν ἐλλιπὲς συντακτὸν ὀρθῇ πτώσει πρὸς ἀξιώματος γένεσιν.

The predicate is … an incomplete sayable which, if constructed with a straight case [i.e. a nominative], generates a state of affairs.   (Diog. Laert. 7.64)

From this, one can derive the following rule:

Case + Predicate → State of Affairs

(The two symbols "+" and "→" are used only for the sake of brevity: the rule should be read "If a case is constructed with a predicate, a state of affairs is generated".)

The corresponding rules on the linguistic level immediately follow:

Name + Verb → Sentence
Appellative + Verb → Sentence
Article + Verb → Sentence

According to another definition, the predicate is constructible [συντακτόν] with one or several cases (Diog. Laert. 7.64). Which suggests that for predicates such as the significate of ὁρᾶν [see], the rule is as follows:

Case + Predicate₂ + Case → State of Affairs

To this one ontological rule correspond nine linguistic rules: one can see why Chrysippus chose to base the latter on the former.—And so forth (see Egli 1987; Frede 1993).

From Diogenes to Trypho

Chrysippus' pupils were mostly concerned with preserving the doctrine of the Master. Zeno of Tarsus, who on Chrysippus' death (*c.* 205 BC) became the fourth scholarch of the Porch, did not write much, but he left a great number of disciples (Diog. Laert. 7.35; cf. *SVF* 3: 209). Diogenes of Seleucia, known as the Babylonian, the fifth scholarch, had been a student first of Chrysippus and then of Zeno, and he became one of the dominant intellectual figures of the second century BC (cf. *SVF* 3: 210–243). His handbook *On Sound* [περὶ φωνῆς] appears to be the main source lying behind Diogenes Laertius 7.55–59—which is one of our principal sources for that part of the Stoic doctrine (Diog. Laert. 7.55; 7.57; cf. Mansfeld 1986: 367). During his long career, Diogenes formed scores of students—among them not only philosophers such as his successors Antipater and Panaetius, but also grammarians like Apollodorus of Athens and Dionysius Thrax. The Babylonian seems to have played a cardinal rôle in the transmission of the Stoic science to the Alexandrian γραμματικοί (cf. Frede 1987: 358).

Antipater of Tarsus, the sixth scholarch (from *c.* 140 BC), was one of the "leading dialecticians" of his time (Cic. *Luc.* 143; cf. *SVF* 3: 244–258). To students of the history of linguistics, he is known especially for having introduced, in his *On Speech and What is Said* [περὶ λέξεως καὶ λεγομένων], the so-called middle [μεσότης] (Diog. Laert. 7.57). As in the case of "connective", the term "middle" is used to speak both of an ontological class (e.g. Simpl. *in Cat.* 388.24) and of the corresponding linguistic class—instances of the latter include ἀνδρείως [bravely] and καλῶς [well] (ibid. 37.12). It is with Antipater that the most innovative period in the history of Stoic dialectic ends.

The contribution to linguistic theory made by the early Alexandrian grammarians—from Zenodotus of Ephesus (*fl.* 280 BC) to Aristophanes of Byzantium (*fl.* 200 BC)—is modest. The position occupied by Aristarchus of Samothrace (*fl.* 160 BC) is more difficult to determine: in recent years, it has been argued that the system of the eight parts of speech as one knows it from Apollonius Dyscolus' writings was, to a great extent, already in place in his time, and had presumably been partly created by him (Ax 1982; Matthaios 1999).

Aristarchus himself did not write any books on what was later called technical grammar; but some of his many pupils did—for instance, Dionysius Thrax (*fl. c.* 120 BC). The little one knows of Dionysius' system (and setting aside the grammatical *aide-mémoire* known as *Techne*, which, apart from its opening, postdates Apollonius) suggests he defended a Stoic theory: names and appellatives, in Dionysius' eyes, constitute two different word classes; verbs he defined as signifying a predicate; and words such as ἐγώ he did not (unlike Apollonius) call pronouns but deictic articles—Chrysippus had referred to them as definite articles, but regarded all definite articles as deictic (cf. Di Benedetto 2007: 2.522; Schmidhauser forthcoming).

The first century BC witnessed an explosion of interest in grammar and a corresponding number of specialised publications, ranging from orthography and pneumatology (the theory of aspiration) to pathology, the theory of the various parts of speech, and dialectology. The most important figure of that age was Trypho of Alexandria (*fl. c.* 50 BC). As far as one can tell from the scattered remains of his writings, the general theory he defends is, if not the same as, certainly very similar to the Apollonian one—half of the preserved fragments in fact stem from Apollonius.

Apollonius Dyscolus

Apollonius is the greatest and most influential of the Greek grammarians; he is also the first for whom we possess original writings—and not just a thin essay but hundreds of pages. His theory of language in many respects resembles Chrysippus', as the famous second paragraph of his *Syntax* may illustrate:

ἤδη γὰρ καὶ ἡ πρώτη ῥηθεῖσα ἀμερὴς ὕλη τῶν στοιχείων τοῦτο πολὺ πρότερον κατεπηγγείλατο, οὐχ ὡς ἔτυχεν ἐπιπλοκὰς ποιησαμένη τῶν στοιχείων, ἀλλ᾽ ἐν τῇ κατὰ τὸ δέον συντάξει, ἐξ ἧς σχεδὸν καὶ τὴν ὀνομασίαν εἴληχεν. ἥ τε ἐπαναβεβηκυῖα συλλαβὴ ταὐτὸν ἀνεδέξατο, εἴγε αἱ ἐκ τούτων συντάξεις ἀναπληρούμεναι κατὰ τὸ δέον ἀποτελοῦσι τὴν λέξιν. καὶ σαφὲς ὅτι ἀκόλουθόν ἐστι τὸ καὶ τὰς λέξεις, μέρος οὔσας τοῦ κατὰ σύνταξιν αὐτοτελοῦς λόγου, τὸ κατάλληλον τῆς συντάξεως ἀναδέξασθαι· τὸ γὰρ ἐξ ἑκάστης λέξεως παρυφιστάμενον νοητὸν τρόπον τινὰ στοιχεῖόν ἐστι τοῦ λόγου, καὶ ὡς τὰ στοιχεῖα τὰς συλλαβὰς ἀποτελεῖ κατὰ τὰς ἐπιπλοκάς, οὕτω καὶ ἡ σύνταξις τῶν νοητῶν

τρόπον τινὰ συλλαβὰς ἀποτελέσει διὰ τῆς ἐπιπλοκῆς τῶν λέξεων. καὶ ἔτι ὃν τρόπον ἐκ
τῶν συλλαβῶν ἡ λέξις, οὕτως ἐκ τῆς καταλληλότητος τῶν νοητῶν ὁ αὐτοτελὴς λόγος.
Much earlier already, the elements—mentioned first qua indivisible matter—announce
this, for the combinations of the elements are not made at random but according to the
rules of the construction—from which they in effect have also received their name. The
syllable, at the next level, obeys the same principle, since to produce the word, the con-
structions of the syllables must be realised according to the rules. And clearly it is logical
that also the words, which are the parts of a well-formed complete sentence, obey the
congruence of the construction: for the thinkable underlying each word constitutes an
element, as it were, of the sentence—and just as the elements produce the syllables ac-
cording to their combinations, so also the construction of the thinkables will produce
syllables, as it were, through the combination of the words; and again, just as the word
comes into being from the syllables, so does the complete sentence come into being from
the congruence of the thinkables.

(Ap. Dy. *Synt.* 1.2.3–3.2; cf. Prisc. *Inst.* 18.108.5–109.3)

Like Chrysippus Apollonius starts with the elements of writable sound, and derives
from them, first, syllables, then, words, and then, sentences (cf. *schol. Techne* 4.2); like
Chrysippus he regards a construction of words as a sentence if and only if it signifies
a certain underlying entity; etc. (see Frede 1987: 354).

Yet the similarities—striking though they may be—should not lead one to over-
look the differences between the two theories. Most importantly, Apollonius intro-
duces an additional level of analysis. A sentence, in his eyes, is a construction of
words that signifies a complete thought—a mental item, that is (cf. *schol. Techne*
214.4; 354.7; Prisc. *Inst.* 2.53.28). For Chrysippus, on the other hand, the significate
of the sentence was a state of affairs—which is an element of the ontology, alongside
predicates, cases, qualities, etc. Again, for Apollonius a word is a part of a sentence
that signifies a thinkable—something that is, so to speak, an indivisible element of a
complete thought. In fact, he presupposes that to each word-class there corresponds
a thinkable-class, and he generally calls the two by the same name: an ἀντωνυμία,
say, can be a pronoun (e.g. *Pron.* 23.6) or the thinkable signified by a pronoun (e.g.
Pron. 8.4). Sometimes he also uses circumlocutions such as ἡ τῶν ῥημάτων ἐκφορά
[the form of verbs] to speak of the word (e.g. *Pron.* 23.19); or he specifies what one
finds on the noetic level by means of expressions such as τὸ γὰρ νοούμενόν ἐστι…
[for what is thought is…] (e.g. *Pron.* 43.17).

Sometimes we might wish to be more precise. Let us therefore stipulate the fol-
lowing:

If α is an expression of Greek that signifies a thinkable, then <α> is the thinkable signified
by α; likewise, if $\alpha\beta$ is an expression of Greek that signifies two thinkables, then <$\alpha\beta$> are
the two thinkables signified by $\alpha\beta$; etc.

And:

If *x* is a word-class, then <*x*> is the corresponding thinkable-class.

These are not modern sophistries. In his commentary on the *Techne*, for example, Heliodorus (ninth cent.) once reports a distinction between pronouns and <pronouns>: the latter, he says, are called ἀντωνυμίαι, the former, ἀντώνυμα (*schol. Techne* 77.21). The use of such twin terminologies did not become generalised, however—presumably the risk for confusion was deemed small.

In principle, a word is a writable sound that signifies exactly one thinkable. In reality, however, the one-to-one correspondence between words and thinkables often fails to hold. Indeed, sometimes a word includes more than one thinkable: an inflected verb like γράφω [I write], for instance, signifies two thinkables, viz. <ἐγώ> (or rather its enclitic but unrealised sibling) and <γράφω> (e.g. *Synt.* 2.165.2). Sometimes, on the other hand, a single thinkable is expressed by two words: thus, for instance, when Homer (as read by Apollonius) splits certain words and writes κατὰ … ἤσθιον [(they) ate down] instead of κατήσθιον [(they) devoured] (e.g. *Od.* 1.8sq., with *schol. Od.* ad loc.; cf. Ap. Dy. *Synt.* 1.6.11). It is inexact, then, to describe the relation between the two structures as isomorphism (pace Sluiter 1997: 207; cf. 1990: 140).

Apollonius wrote a treatise called *On the Doric, Ionic, Aeolic, and Attic Dialects* (*Suda* α 3422). The title alone illustrates that he regarded Attic as one dialect among others—it certainly was not the standard against which he measured Greekness (cf. e.g. *Pron.* 50.4). As for the Greek used in Apollonius' time—what we call "Common Greek" or "Koine"—it, too, is considered a dialect (e.g. *Con.* 223.24). For to Apollonius, all varieties of Greek seem to stand on the same level—the linguistic level. Each dialect represents a different realisation of what is to be found on the noetic level. This does not entail, as is frequently claimed, that "he still has a synchronic view of the Greek language" (Schironi 2002: 155). On the contrary, Apollonius was well aware that some linguistic forms were older than others—as can be seen, for example, in his brilliant demonstration that Homer did not yet know the reflexive pronoun ἐμαυτόν (*Pron.* 44.11).

In fine, let us take a brief look at three parts of speech—pronouns, verbs, and nouns: A pronoun is defined as a word which is used in place of a noun and which indicates a definite person (*Pron.* 9.11). The first criterion seems to be syntactic: a pronoun is the sort of word which, when joined to a verb, yields a sentence—that is, a <pronoun>, constructed with a <verb>, produces a thought:

Pronoun + Verb → Sentence   (linguistic)
<Pronoun> + <Verb> → <Sentence>   (noetic)

The second criterion is semantic: by means of a pronoun, one defines or identifies a certain item. Elsewhere, Apollonius further explains that the sort of thing one identifies is a substance [οὐσία] (e.g. *Pron.* 26.14; *Synt.* 1.101.12). Ordinarily it is thought that Apollonius intends to speak of "Aristotelian substances"—things like me or my bike (e.g. Lallot 1997: 2.64; cf. Arist. *Cat.* 2a11). It appears more likely, however, that he uses οὐσία in the Stoic fashion, that is, in the sense of "(bit of) matter" (cf. *Synt.* 2.155.6).

The verb's syntax has been outlined above: when constructed with a noun, or a pronoun, a verb such as γράφειν [write] yields a sentence. Most verbs signify an action [πρᾶγμα]: γράφειν, for instance, signifies the action of writing (e.g. *Pron.* 114.28; *Synt.* 3.323.9; cf. above p. 3). Actions in all likelihood are incorporeal items, akin to Stoic predicates. For were they corporeal, one could not entertain erroneous thoughts. Apollonius recognises various kinds of action. Running, flying, etc. constitute one group: these belong to one person or thing only; seeing, killing, etc. form another group: they involve two or more things (e.g. *Synt.* 3.395.13).

A noun is defined as a word that assigns [ἀπονέμει] a quality [ποιότητα] (*schol. Techne* 524.9; *Synt.* 2.142.1). The noun ἀνήρ [man], for example, assigns the quality of being a man to some bit of matter. Thus when I combine the noun with a verb and say, for example, ἀνὴρ τρέχει [A man runs], what I say is that an underlying substance qualified as man is engaged in the action of running. A quality is either peculiar [ἰδία] or common [κοινή] (cf. above p. 7). A common quality is one had by many (*Pron.* 26.10). Manhood is an example of such a quality; and ἀνήρ [man] would thus be an example of a noun that signifies a common quality—Apollonius refers to it as an appellative noun [προσηγορικὸν ὄνομα]. A peculiar quality, on the other hand, is one had by one person only (e.g. *Pron.* 105.18). An example would be the quality of being Andreas, for no one save me is qualified in this way: hence Ἀνδρέας [Andreas] is a noun that signifies a peculiar quality—Apollonius calls it a proper noun [κύριον ὄνομα]. Sentences with a proper noun such as Ἀνδρέας τρέχει [Andreas runs] are analysed in the very same way as sentences with an appellative noun like ἀνὴρ τρέχει [A man runs]: the action of running belongs to a certain substance qualified as being a man or as being Andreas.

Among the verbs that do not signify an action, one finds the so-called verbs of being such as εἶναι [be] or ὑπάρχειν [be]. (The standard translation of ὑπαρκτικὰ ῥήματα as "verbs of existence"—e.g. LSJ s.v. ὑπαρκτικός—is obviously mistaken.) Two examples of what Apollonius has in mind: Τρύφων γραμματικός ἐστι [Trypho is a grammarian]; φιλόσοφος σοφὸς ὑπάρχει [A philosopher is wise]. Verbs of being are peculiar in both syntax and semantics. They are constructed with two nominatives. They signify the ὕπαρξις [being] or οὐσία [being] of something (e.g. *Synt.* 2.207.8). That is to say, these verbs are used to predicate a quality [κατηγορεῖν ποιότητος] (e.g. *Synt.* 1.91.2). Given that an ἐστί [is], on its own, cannot signify a quality, Apollonius might have intended to say that a verb of being serves to predicate

the quality signified by the second noun, of the person signified by the first noun. What a sentence such as Τρύφων γραμματικός ἐστι thus means is—the quality of grammarian is predicated of the substance with the peculiar quality of Trypho.

FURTHER READING

The best surveys of the history of Greek grammar are Pinborg (1975) and Blank (2000).

The remains of Stoic dialectic have been collected and translated into German by Hülser (1987–88); a selection of the fragments, with English translation and commentary, may be found in Long & Sedley (1987). For a general account of Stoicism, see the contributions in Algra et al. (1999) and Inwood (2003); for Stoic grammar in particular, see especially chapters 16 and 17 in Frede (1987), and Blank & Atherton (2003).

A full bibliography on Apollonius Dyscolus—including editions and translations to download—can be found in Schmidhauser (2000–). For a general introduction to Apollonius, see Blank (1993); much can be learned from Lallot's notes to his French translations of the *Syntax* (1997) and the *Techne* (1998).

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