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“VOCABULA GRAMMATICA”: THREADING A DIGITAL ARIADNE’S STRING IN THE LABYRINTH OF ANCIENT GREEK SCHOLARSHIP

Abstract An ongoing academic and research program, the “Vocabula Grammatica” lexicon, implemented by the Centre for the Greek Language (Thessaloniki, Greece), aims at lemmatizing all the philological, grammatical, rhetorical, and metrical terms in the written texts of scholars (philologists and scholiasts) who curated the ancient Greek literature from the beginning of the Hellenistic period (4th/3rd c. BC) until the end of the Byzantine era (15th c. AD). In particular, it aspires to fill serious gaps (a) in the study of ancient Greek scholarship and (b) in the lexicography of the ancient Greek language and literature. By providing specific examples, we will highlight the typical and methodological features of the forthcoming dictionary.

Keywords Humanities; digital lexicography; specialized dictionary; Ancient Greek language; Ancient Greek scholarship

1. Introduction

Ancient Greek scholarship – γραμματική τέχνη in Greek, ars grammatica in Latin – refers to two organically linked spheres: on the one hand, to all literary works, their understanding, reconstruction, and interpretation, while on the other to the origins, structure, and functions of language as an autonomous tool for their creation. In that sense, scholarship relates, as an independent science, both to commentaries on literary texts (hypomnemata, scholia) and to exegetic grammatical treatises (Montanari 2011, pp. 11–13; Novokhatko 2015, p. 4; Matthaios 2015, p. 197).

Concerning the historical setting and development of the Greek scholarship, its earliest roots trace back to the 5th and 4th centuries BC during the Classical Age (479–323 BC); at that time, philosophers like Plato and Aristotle began to analyze the Greek language systematically. However, it was in the 3rd century BC Ptolemaic Alexandria, during the Hellenistic period (323–30 BC), when pioneering Greek scholars of its then world-famous academic institution, the Alexandrian Museum and Library, finally laid the solid foundations and disseminated Greek scholarship as a distinct scientific field. The field was flourishing from the 1st century BC through the start of the 6th century AD (Roman Imperial period and Late Antiquity). In the meantime, the scholarly tradition of the Greek East diffused into the Latin West; a novel School of Latin grammarians (Grammatici Latini) appeared and gradually developed in parallel to the standing Greek counterpart. From the 6th to the 15th century AD, the medieval Byzantine scholars significantly contributed to the survival and transmission of ancient Greek scholarship across Europe and beyond.

Despite having its starting point in Classics, interdisciplinarity characterizes the study of ancient Greek scholarship, thus expanding its perspective in other fields, such as modern literary theory, linguistics, rhetoric, and even philosophy. During the last decades, the an-
cient Greek scholarship has been at the center of intensive and multidimensional research activity, decisively encouraged by modern editions of ancient or medieval commentaries and other related works.

2. A basic description of the “Vocabula Grammatica” dictionary

Having been designed from the beginning as a digital database using Drupal 6.38 as its Content Management System (CMS), its macro- and microstructure make salient its characteristics: *Vocabula Grammatica* is a specialized, linguistic, historical, multilingual, and polyphonic dictionary. It is implemented by the Centre for the Greek Language (Thessaloniki, Greece), under the supervision of Prof. A. Rengakos in collaboration with Prof. Franco Montanari (University of Genoa).

2.1 Macrostructure: term selection and ordering

Polyphony is a primary characteristic of the wordlist, which was composed by sorting out and cross-checking various indexes of critical editions or special studies (such as Grammatici Graeci II–IV; Erbse VI–VII (1983, 1988); Martin 1974; Meijering 1987; Keizer 1995; Lausberg 1998; Nüellist 2009), lexica and glossaries (such as Ernesti 1795; Bécares Botas 1985; Dickey 2007; Anderson 2000; Urrea Méndez 2003; Fenoglio 2012), falling under the determining fields of ancient Greek scholarship. This stage, although time-consuming, was a condition sine qua non for assuring the comprehensiveness of the dictionary. Hence, a wordlist of some 7,000 terms has been alphabetically elaborated. Nearly 2,000 grammatical terms, their derivatives, compounds, and other related terms are being currently lemmatized: e.g., συλλαβή-συλλαβικός-πολυσυλλαβός, πτώση-πτωτικός-ύπτωτος-μονόπτωτος. Frequency was not the decisive criterium of the lemmatization because the specialized *Vocabula Grammatica* “aims at considerably higher terminological coverage” (Bergenholtz/Tarp (eds.) 1995, p. 90) than general dictionaries.

2.2 Dictionary material: the corpus and the canon

The dictionary aims at recording all the relevant terminology attested in scholarly works: grammatical and rhetorical treatises, lexica, commentaries and scholia, and works of textual criticism. Chronologically, our corpus spans over 20 centuries, from the 5th century BC to the 15th century AD. It includes:

a) early attestations from the Classical Age;

b) the scholars of the Early Hellenistic/Alexandrian period (3th-2nd c. BC), mainly librarians at Alexandria and Pergamon, such as Aristophanes of Byzantium and Aristarchus of Samothrace;

c) the scholars of the Late Hellenistic and the Roman imperial periods (2nd c. BC-5th c. AD), among whom the grammarians Dionysius Thrax, Apollonius Dyscolus and his son Aelius Herodianus prevail, as well as notable rhetoricians, such as Dionysius of Halicarnassus and Hermogenes of Tarsus; occasionally, Latin grammarians are also quoted, when a Greek term appears in Latin transcription.
d) the scholars of the Byzantine period (5th-15th c. AD), among whom Hesychius, Georgius Choeroboscus, Photius, Eustathius of Thessalonica plus various etymological lexica merit a special mention.

(For all the above-mentioned cf. Sluiter 1990; Robins 1993; Dickey 2007; De Jonge 2008; Matthaios/Montanari/Rengakos (eds.) 2011; Matthaios 2014; Montanari/Matthaios/Rengakos (eds.) 2015; Tikkanen Westin 2018; Montanari (ed.) 2020).

2.3 Microstructure

The microstructure of our dictionary divides into three distinct but interrelated parts.

2.3.1 The Introductory Lemmatical Structure

In principle, Vocabula Grammatica is a linguistic dictionary. The headword appears according to received lexicographical practices for Ancient Greek (under Lemma (Fig. 1)). Namely, for verbs, 1st person ind. pres. act. (ἀδρύνω; ἀθετέω-ῶ), or pass. if the term attests only to this voice (ἀναχωρεύω-οίμα); for nouns, nom. and gen. sg. with the article (ἀναγωγή-ης, η); for adjectives, participles, and verbal adjectives, nom. sg. in all genders (ἀβαρβάρως; ἀβαρβάρως; ἀδρῶς, ἀδρά, ἀδρόν). Variant spellings or forms are recorded under the same headword, where the most frequent appears first (δισσολόγεω-ῶ / διττολόγεω-ῶ; μονόβιβλος, ὁ / μονόβιβλον, τό). The grammatical category of the headword is registered in the Grammar section (Fig. 2) under the labels of Noun, Verb, Adjective, Adverb, Participle, and Verbal Adjective. Further distinctions or tagging might be possible, allowing search options for substantivized items, prepositional phrases (ἀπό κοινοῦ), or lexical phrases/multi-word terms (κοινός τόπος). Adverbs and participles are not subordinated under Adjective and Verb, as they prove crucial for ancient Greek scholarly terminology. A distinct field exists for recording the corresponding Latin term (Fig. 3) as attested in Latin grammar and relevant treatises. We shall complete this task at a later stage. It will be of great value for tracing the continuity between the ancient and modern grammatical/scholarly terminology, as well as the connection between the two classical languages in this domain: for example, the direction of borrowing for pairs, such as ἄκλιτος/ἀπτωτος > indeclinabilis/aptotus and glossema > γλώσσα. Finally, under the Dictionaries field (Fig. 4), the presence of a term in the primary general dictionaries of Ancient Greek (LSJ and LSJSuppl., DGE, GI, GE) is recorded, either if it is listed as a separate headword or within a relevant entry, as regularly in the case of adverbs. The inclusion of dictionaries in this list was based on their lasting influence (LSJ) and being newly published (GE). The list of reference dictionaries might expand to include new relevant publications.
2.3.2 The Main Lemmatical Structure

The interdisciplinary character of ancient Greek scholarship manifests itself in the Field domain, where we allocate one or more scholarly fields to each term based on its meaning and specific usage. The key fields are Grammar, Language, Literary Criticism, Meter, Philology, and Rhetoric. Sometimes the attribution of a term to a single Field may be conventional, given the blurring borders between them. Quite typical are the cases of terms related to prosody, as they can refer either to Grammar and Meter (Fig. 5) or grammatical terms frequently found within a rhetorical or literary context and, hence, correspondingly marked (Fig. 6).

Vocabula Grammatica is not a monosemous terminological guide but a linguistic dictionary that foregrounds the polysemy of the philological terms by tracing their use in various contexts. This character reflects in the Translation section. Here, the entries thoroughly display their respective meanings and the particular use of individual forms or collocations based on a meticulous (sub-)categorization of the available evidence. Hence, we opt for a multi-layered translation, where a term is being defined, first, according to its field of reference (I, II, III), secondly, to its meaning or sub-meanings (1, 2, 3), and finally, according to its specific usages (a, b, c / i, ii, iii) (Fig. 7, for ἀναδιπλόω).

Due to its broad chronological coverage, the dictionary discourages a saliency-based classification of meanings in favor of a chronological one (see also in Sources). The saliency of a meaning manifests itself basically in the number of relevant quotations. While the headword and the sources are in Ancient Greek, English is the principal working language; additionally, we record translations and interpretations in French, German, Italian, and Spanish. Under the relevant meaning, we cite available translations in the basic general dictionaries of Ancient Greek (LSJ, GE, Bailly, Pape, GI, DGE) along with other specialized glossaries, studies, or (translated) editions (see 2.1). As much as this practice seems to correspond to a pre-final stage of compilation, it constitutes a distinctive characteristic of this dictionary, bringing together direct with indirect sources. There are entries where we acquire the translation exclusively from existing definitions and others where we supplement it. Besides, there are entries where we provide a wholly new translation, when either the...
term itself or its grammatical sense does not testify to the relevant indirect sources. In any case, existing definitions are not merely juxtaposed but critically embedded in the arrangement of meanings and usages. This multilingual and polyphonic character is further enhanced by providing the Latin equivalent. The Translation domain sets a series of issues of concern for the compiler of a specialized dictionary. We are here confined to mention two of them. A fascinating interplay occurs between general and special meaning as we come upon familiar words supplied by new meaning(s) within their specific usage (for example, κράςςις, ἀδριστός, ἐνέργεια, πρόσωπον, ψιλός), or – vice versa – words and meanings that move from the special to the general vocabulary (for example, μεταφορά, ἁριθμός, βραχυσύλλαβος). Moreover, we attempt to introduce the terms as they were used and understood by ancient authors (see Dickey 2007), allowing even for consistencies and inconsistencies to emerge; thus, we try to avoid anachronisms that may further complicate the already unstable landscape of ancient Greek scholarship (see below 3).

The Sources domain immediately follows the Translation. By definition, historical dictionaries, such as the Vocabula Grammatica, rely much upon:

[...] snippets of text from cited sources. The aim is not only to show the word in context but also to show that it exists, precisely, at a particular date and in a particular source; the citation material is the verifiable documentary evidence on which the entry is built. (Hanks/de Schryver 2015, p. 7)

Initially, the compiler scans the whole kaleidoscope of sources in ancient and medieval Greek texts by applying and using the Thesaurus Linguae Graecae (TLG) – the online corpus of Ancient Greek and Byzantine literature – as well as by consulting critical editions not yet included in the TLG, mainly based on our canon of primary sources (see 2.2). The survey, study, and analysis of sources allow the compiler to arrange them both in the horizontal (chronological, historical) and the vertical (interdisciplinary, semantic, interpretive, or explanatory) axis. This indexation facilitates the parallel study of the development of the meaning or meanings of each entry term. As the Vocabula Grammatica dictionary does not aim at exhaustiveness but rather at representativeness and relevance, the quantity of the citations depends on these criteria (cf. Ashdowne 2016, p. 354). Where possible, especially in the case of terms with a small number of attestations in Ancient Greek and Byzantine literature, the indexation is exhaustive (ἄοριστόδως/ἀοριστοδώς). Yet, we record the presence of each term in the relevant literary tradition throughout the whole period of its attestation. Consequently, there are terms whose attestation at the corpus ranges from an hapax legomenon or a few dozen to hundreds or thousands of references, an element captured in the Sources domain.

At the microstructure level (see Fig. 8, for ἀναδιπλάω), the sources are indexed chronologically within each (sub)category of field, meaning, and usage – definitely according to the first attestation of the term – to facilitate a fair general overview of its semantic development. So, we also provide not mere citations but extensive quotations from sources. Each lemma is simultaneously composed by studying the direct (the texts) and the indirect (the dictionaries) sources, though first based on the chronological and then its generic and semantic arrangement. The study of the whole corpus allows the compiler to gain overall supervision of the literary tradition through its intermittent transmission or even copying in the scholarship continuum. At the end of the Sources section, we array various undated scholia according to the author’s era and the chronology of the original treatise on which they comment. All three domains, namely the Field, Translation, and Sources, are strongly interrelated and inherently contextual.
2.3.3 Cross-reference structure

As has been pointed out:

Cross-reference structure is a lexicographical term for the arrangement of those explicit and implicit indicators that direct the user within the dictionary for additional or supplementary information over and above that already found at the first lookup. [...] Used correctly, cross-references play a major role in the dictionary, in that they serve to unify and amplify the information provided, thus giving the user a more comprehensive view. (Bergenholtz/Tarp (eds.) 1995, p. 16)

That’s why the dictionary includes the domains of Bibliography, Notes, and Related Terms. These three sections connect us to the microstructure of each entry (see 2.3), the macrostructure (namely the overall wordlist), and the outside matter of the dictionary. In the Bibliography section, we provide bibliographic references used for the compilation of each entry, thus further enhancing the comprehension and documentation of every term. Within the Notes section, users may find various kinds of remarks: a) bibliographic information, such as encyclopedic type of information, notes concerning textual criticism, enlightening information in reference books and articles; b) information regarding each specific lemma, such as “Term not attested in dictionaries” “Exhaustive indexation” or “Hapax found” in sources, variant or dialectic forms of the term itself, comments on probable erroneous explanations, misconceptions or misinterpretations in other dictionaries and reference works, or allusions to the general vocabulary (cf. ἀντονομασία/ ἀντωνομασίας, ἀντωνομασία, ἀντωνομασίας, ἀστερίσκος, χρωματικός, ὥστιος, ὀλυμπιάδος, μονόπτωτος, μονόπτωτον). In the Related Terms, each entry transcends the microstructure and communicates again with the macrostructure of the dictionary. The Related terms are selected according to their morpho-semantic and conceptual relation with the listed lemma (Fig. 9, for ἀκλίτος). Therefore, ‘families’ of either derivative, compound, or semantically related words may emerge.
3. Philological issues

To this day, the lexicography of the ancient Greek grammatical terms presents certain complications and problems; some are mentioned immediately below.

a) The sources. From the 3rd century BC to the 3rd century AD, few works of Greek grammarians and philologists survived to be transmitted directly. Most grammatical and philological treatises have since been lost or transmitted only indirectly through references or quotations in later – mostly Byzantine – commentaries, epitomes, and dictionaries. Yet, some collections exist with fragments of those now-lost written works preserved in later sources that partially compensate for their loss. However, since the grammatical theory and terminology evolved considerably between the 3rd century BC and the 15th century AD, we cannot exclude the possibility that later sources might have rephrased the wording of earlier grammarians, using and applying the terminology of their times. Because of these substantial gaps in the tradition and the availability of indirect rather than direct sources for the works of many early grammarians, it is often difficult to identify the first appearance of many terms; it is also difficult to reconstruct their semantic development and their relation to other grammatical terms.

b) The editions. Still, there are no reliable editions for several texts belonging to the grammatical and rhetorical corpora (especially for many Byzantine commentaries, vocabularies, and treatises); in such cases, it is necessary to resort to old editions of the 19th century. Therefore, publications like Erbse’s edition of the scholia graeca on the Iliad and Pontani’s ongoing analogous edition on the Odyssey, Van der Valk’s edition of Eustathius of Thessalonica’s Commentary on the Iliad, or Koster’s et al. multi-volume scholia on Aristophanes are more than welcome.

c) Fluidity in terminology. As Eleanor Dickey has put it:

[…] there is a certain fluidity in Greek technical terminology, so that the same word can have a number of different uses in different passages. Often these differences are the result of the evolution of grammatical theory during the thousand or so years in which ancient scholarship developed. […] Sometimes, however, a single word can have a variety of uses even within one grammatical treatise; for example, Dionysius Thrax uses ἀόριστος both to mean “aorist tense” and to mean “indefinite.” (Dickey 2007, p. 124)

The same is true to an even greater extent of the terminology in the disciplines of rhetoric and literary criticism.

4. Conclusions – further perspectives

Compiling a dictionary marked by such a vast generic and chronological range is not an easy task: it demands steady, long-term, and meticulous teamwork, which is fortunately facilitated nowadays by the systematic use of digital tools concerning either the search or the management of the content (digital corpora and dictionaries on the one hand; CMS on the other). Aiming at exploiting further the possibilities offered by more sophisticated content management systems, our plans in the immediate future include:

– Making more subtle distinctions at the level of content management, thus allowing for more detailed, analytical, and informative search options: for instance, dating the authors or searching into different authors and texts.
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- Elaborating on the cross-reference structure in three directions: a) to other articles of the inner matter (Related terms); b) to the outer matter (abbreviations, bibliographical references, list of editions used); c) aspiringly, to the outside matter of the dictionary (external literature and relevant digital tools, that is other dictionaries).

- Developing the Related terms domain, so as to achieve a more detailed classification based on linguistic (morpho-semantic) and conceptual criteria, namely synonyms, opposites, and concept maps.

Most likely, the completion of the Vocabula Grammatica dictionary will make salient the systematic character of the ancient Greek scholarship along with the ideological and cultural parameters that make it an autonomous scientific field, as well as its interconnection with other disciplines of antiquity, though without ignoring the methodology and issues of modern literary criticism. So, it will undoubtedly contribute to the renewal and enrichment of the general dictionaries of the ancient Greek language within the emerging and promising field of Digital Humanities, offering a kind of a digital Ariadne’s String for navigating into the labyrinth of ancient Greek scholarship.

References


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