NWAAG^1

New Ways
of analyzing
Ancient Greek

organized by

Götz Keydana, Stavros Skopeteas, and Vassilios Spyropoulos

This workshop is part of LinG2, the Annual Meeting of the *Linguistics in Göttingen* network. LinG2 will also contain a workshop on Number and plurality: cross-linguistic variation in the nominal domain to take place on December 13-14, 2019.

Göttingen, December 13-14, 2019

Workshop announcement

Götz Keydana, Stavros Skopeteas, and Vassilios Spyropoulos

Ancient Greek and Latin were certainly among the best-studied languages a hundred years ago, biasing our understanding of grammatical categories and structures. In the realm of modern linguistics the perspective was shifted towards modern languages, which gave rise to an interesting situation: the grammars and dictionaries of Classical languages are still among the most detailed linguistic descriptions available, but these languages are severely underrepresented in modern linguistic research. This state of affairs offers a twofold challenge:

- What can we learn from languages such as Ancient Greek for the generalizations gained within modern linguistic frameworks?
- How can we advance our understanding of Ancient Greek by applying the analytic tools of modern linguistic theory?

These challenges were taken up by several studies in the recent years that shed light on typological peculiarities of Ancient Greek, such as the metrical structure, syllabification and accentuation (Kiparsky 1967, 1973, 2003, Warburton 1970, Steriade 1982, 1988, Sauzet 1989, Golston 1989, Devine & Stephens 1994, Noyer 1997, Golston & Riad 2000, 2005, Gunkel 2011, 2014), the prosodic behavior of clitics and their relevance for the syntax-phonology interface (Taylor 1996, Revithiadou 2014, Goldstein 2016), the emergence of DP structures (Manolessou 2000, Manolessou and Horrocks 2007, Guardiano 2012), the discontinuous noun phrases (Devine and Stephens 2000, Golston & Agbayani 2010), the syntax of preposition in relation to case and verb structure (Horrocks 1980, 1981, Luraghi 2003, Acedo-Matellán 2016), voice and case theoretical issues (Grestenberger 2014, 2016, Anagnostopoulou and Sevdali 2015, Michelioudakis 2015), the syntax of the infinitive (Philippaki-Warburton & Catsimali 1997, Spyropoulos 2005, Sevdali 2009), negation and polarity (Horrocks 2014, Chatzopoulou 2018), word order and information structure (Taylor 1990, 1994, Dik 1995, 2007, Matić 2003), and many other issues of relevance for modern linguistics.

The reason for initiating this workshop series is to establish a network of linguists applying analytical tools of current linguistic theories to the research of Ancient Greek. This aims encompasses any framework of modern linguistics at any layer of grammar, phonology, morphology, syntax, semantics and pragmatics.

References

Acedo-Matellán, V. 2016. *The Morphosyntax of Transitions: A Case Study in Latin and Other Languages*. Oxford: Oxford University Press.

Anagnostopoulou, E. and C. Sevdali. 2015. Case alternations in Ancient Greek passives and the typology of case. *Language* 91(2), 442-481.

Chatzopoulou, K. 2018. *Negation and Nonveridicality in the History of Greek*. Oxford: Oxford University Press.

Devine, A.M. & L. D. Stephens. 1994. *The Prosody of Greek Speech*. Oxford: Oxford University Press.

Devine, A.M. & L. D. Stephens. 2000. *Discontinuous Syntax: Hyperbaton in Greek*. Oxford: Oxford University Press.

Dik, H. 1995. *Word order in Ancient Greek. A Pragmatic Account of Word Order Variation in Herodotus*. Amsterdam: Gieben.

Dik, H. 2007. *Word Order in Greek Tragic Dialogue*. Oxford: Oxford University Press.

Goldstein, D. 2016. *Classical Greek Syntax. Wackernagel's Law in Herodotus*. Leiden: Brill.

Golston, C. & T. Riad. 2000. The phonology of Classical Greek meter. *Linguistics* 38, 1-69.

Golston, C. & T. Riad. 2005. The phonology of Greek lyric meter. *Journal of Linguistics* 41, 77-115.

Golston, C. 1989. Floating H (and *L) Tones in Ancient Greek. In J. Myers & P. Pérez (eds.), *Proceedings of the Arizona Phonology Conference*, Vol. 3, 66-82. Coyote Papers, University of Arizona.

Golston, C. & Br. Agbayani. 2010. Phonological movement in Classical Greek. *Language* 86, 133-167.

Grestenberger, L. 2014. *Feature Mismatch: Deponency in Indo-European*. Doctoral dissertation, Harvard University.

Grestenberger, L. 2016. More span-conditioned allomorphy: Voice morphology in Classical Greek. In C. Hammerly and B. Prickett (eds.), *Proceedings of NELS 46*, vol. 2, 1-10. Amherst: GLSA.

Guardiano, C. 2012. Parametric changes in the history of the Greek article. In D. Jonas, J. Whitman, A. Garrett (eds.), *Grammatical Change: Origins, Nature, Outcomes*, 179-197. Oxford: Oxford University Press.

Gunkel, D. 2011. The emergence of foot structure as a factor in the formation of Greek verbal nouns in -μα(τ)-. *Münchener Studien zur Sprachwissenschaft* 65: 77-103.

Gunkel, D. 2014. Accentuation. In G. K. Giannakis (ed.). *Encyclopedia of Ancient Greek Language and Linguistics*, Vol. 1: A-F, 7-12. Leiden: Brill.

Horrocks, G. 1980. Verb compounds in Greek: the elimination of a transformational rule. Traugott, E. C. & R. Labrum & S. Shepherd (eds.), *Papers from the 4th International Conference on Historical Linguistics*, 199-209. Amsterdam: Benjamins.

Horrocks, G. 1981. *Space and Time in Homer: Prepositional and Adverbial Particles in the Greek Epic*. New York: Arno Press.

Horrocks, G. 2014. Ouk ísmen oudén: Negative concord and negative polarity in the history of Greek. *Journal of Greek Linguistics* 14: 43-83.

Kiparsky, P. 1967. A propos de l' histoire de l' accentuation grecque. *Langages* 8, 73-93.

Kiparsky, P. 1973. The inflectional accent of Indo-European. *Language* 49: 794-849.

Kiparsky, P. 2003. Accent, syllable structure, and morphology in Ancient Greek. In E. Mela Athanasopoulou (ed.), *Selected Papers from the 15th Symposium on Theoretical and Applied Linguistics*, 81-106. Thessaloniki: Aristotle University of Thessaloniki.

Luraghi, S. 2003. *On the Meaning of Prepositions and Cases*. Amsterdam: Benjamins.

Manolessou, I. & G. Horrocks. 2007. The development of the definite article in Greek. *Studies in Greek Linguistics* 27, 224-236.

Manolessou, I. 2000. *Greek Noun Phrase Structure: A Study in Syntactic Evolution*. Ph.D. dissertation, University of Cambridge.

Matić, D. 2003. Topic, Focus, and Discourse Structure: Ancient Greek Word Order. *Studies in Language* 27, 573-633.

Michelioudakis, D. 2015. The evolution of inherent Case in the diachrony of Greek. In Theresa Biberauer (ed.), *Edges and Asymmetries in Phonology and Morphology*, 197-216. Oxford: Oxford University Press.

Philippaki-Warburton, I. & G. Catsimali. 1997. Control in Ancient Greek. In G. Drachman, A. Malikouti- Drachman, J. Fykias & C. Klidi (eds.), *Greek Linguistics '95: Proceedings of the 2nd International Conference on Greek Linguistics*, Salzburg, September 1995. Vol. II, 577–588. Graz: W. Neugebauer Verlag GmbH.

Revithiadou, A. 2014. Clitic group. In G. K. Giannakis (ed.). *Encyclopedia of Ancient Greek Language and Linguistics*, Vol. 1: A–F, 296-300. Leiden: Brill.

Noyer, R. 1997. Attic Greek accentuation and intermediate derivational representations. In I. Roca (ed.), *Derivations and Constraints in Phonology*, 501-528. Oxford: Oxford University Press.

Sauzet, P. 1989. L' accent du grec ancien et les relations entre structure métrique et représentation autosegmentale. *Langages* 95, 81-113.

Sevdali, C. 2006. *Infinitival Clauses in Ancient Greek: Overt and Null-subjects, the role of Case and Focus*. Ph.D. dissertation, University of Cambridge.

Spyropoulos, V. 2005. The syntax of Classical Greek Infinitive. In K. Kiss (ed.), *Universal Grammar in the Reconstruction of Ancient Languages*, 295-337. Berlin: Mouton de Gruyter.

Steriade, D. 1982. *Greek Prosodies and the Nature of Syllabification*. Ph.D. Dissertation, MIT.

Steriade, D. 1988. Greek accent: A case for preserving structure. *Linguistic Inquiry* 19, 271-314.

Taylor, A. 1990. *Clitics and configurationality in Ancient Greek*. Ph.D. dissertation, University of Pennsylvania.

Taylor, A. 1994. The change from SOV to SVO in Ancient Greek. *Language Variation and Change* 6, 1-38.

Taylor, A. 1996. A prosodic account of clitic position in Ancient Greek. In Aaron Halpern & Arnold Zwicky (eds.), *Approaching Second: Second Position Clitics and Related Phenomena*, 478-503. Stanford: CSLI.

Warburton, I. 1970. Rules of Accentuation in Classical and Modern Greek. *Glotta* 48, 107-121.

Workshop programme

Friday, December 13, 2019

09:00-09:30	registration
09:30-10:00	Götz Keydana (University of Göttingen), Stavros Skopeteas (University of Göttingen), Vassilios Spyropoulos (National and Kapodistrian Univ. of Athens)
	New Ways of Analyzing Ancient Greek
10:00-11:00	Laura Grestenberger (invited talk, University of Vienna)
	Ancient Greek verbal morphology from a Modern (Greek) perspective
11:00-11:30	Coffee break
11:30-12:10	Richard Faure (Univ. Côte d'Azur, CNRS, BCL)
	Classical Greek split DPs as diagnostics for the relations between split CPs and split vPs in Phase Theory
12:10-12:50	Vassilios Spyropoulos (National and Kapodistrian Univ. of Athens)
	Absolute participial constructions in Ancient Greek
12:50-14:30	Lunch break
14:30-15:10	Anthi Revithiadou (Aristotle University of Thessaloniki)
	The moraic value of consonantal moras in Ancient Greek: A Gradient Harmonic Grammar account
15:10-15:50	Ryan Sandell (Ludwig-Maximilians-Universität München)
	The Place of Attic-Ionic Greek in Word-Level Prosodic Typology
15:50-16:20	Coffee break
16:20-17:00	Anna Roussou (University of Patras)
	On complementizers in Ancient Greek
17:00-17:40	Götz Keydana (University of Göttingen)
	Surface patterns or syntactic structure? Accusative subjects with infinitives in Ancient Greek
17:40-18:20	Paola Crisma (University of Trieste). Cristina Guardiano (Università degli Studi di Modena), Giuseppe Longobardi (University of York)
	Ancient grammars and formal linguistics
19:30	Dinner

Saturday, December 14, 2019

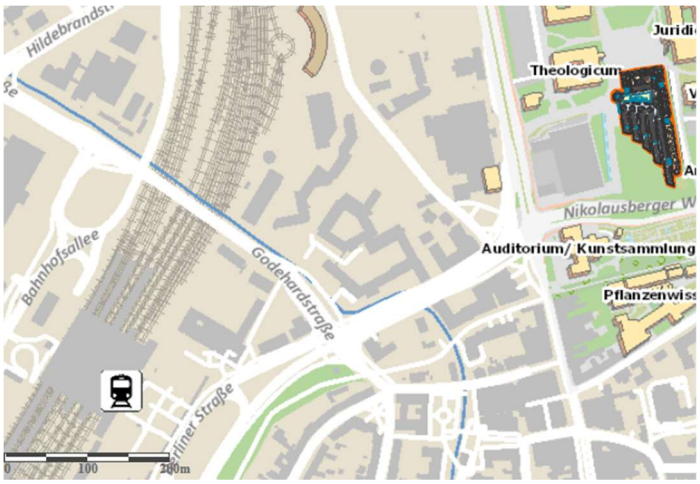
09:30-10:30	David Goldstein (invited talk; UCLA)
	A realizational account of Homeric -φι(ν)
10:30-11:00	Coffee break
11:00-11:40	Nicolas Bertrand (Université Côte d'Azur, CNRS, BCL) Cassandra Freiberg (Humboldt-Universität zu Berlin)
	Enjambement of Narrow Focus + Verb in Homeric Greek
11:40-12:20	Martina Astrid Rodda (University of Oxford)
	The flexibility of the Homeric formula: a familiar question under a new framework
12:20-13:00	Saverio Dalpedri (University of Göttingen)
	Possibility and necessity in non-finite modal forms of Homeric Greek
13:00-14:30	Lunch break
14:30-15:10	Victoria Beatrix Fendel (University of Oxford)
	Support-Verb Constructions in Greek Methodology and data collection
15:10-15:50	Clara Lacerda Crepaldi (University of São Paulo)
	A functional discourse approach to the particle ἀτάρ in classical Greek
15:50-16:20	Coffee break
16:20-17:00	Roxanne Taylor (University of Manchester)
	Future participles expressing purpose in control relationships

Venue

Göttingen State and University Library

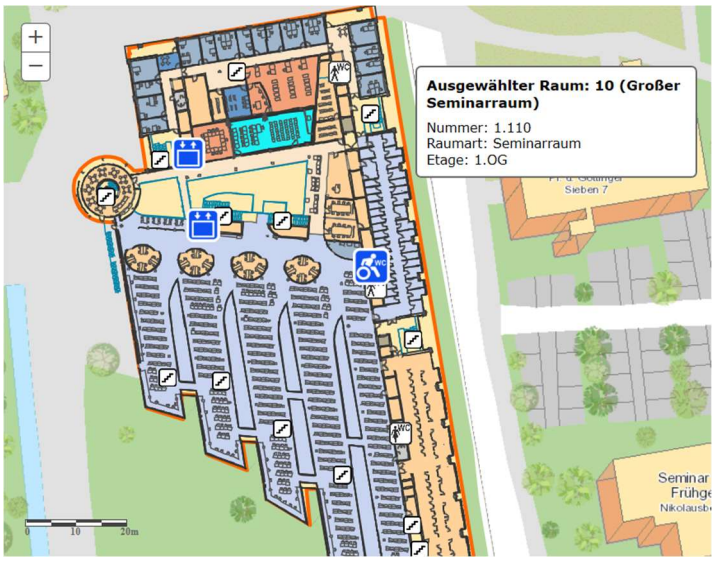
Platz der Göttinger Sieben 1

From Railway Station to Göttingen State and University Library



Room: 1st Floor, Room 10: "Großer Seminarraum"

Room nr: 1.110



Dinner: Friday, December 13, 2019

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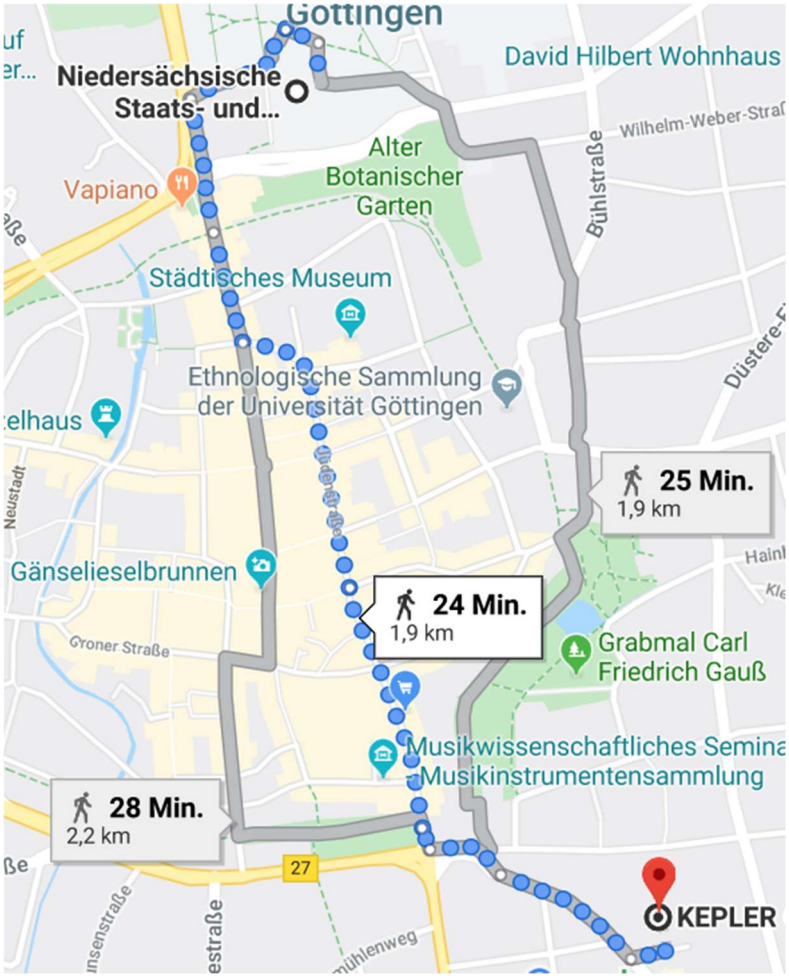

Contents

Enjambement of *Narrow Focus* + *Verb* in Homeric Greek

A corpus-based investigation of prosodic, syntactic and information-structural factors leading to increase in prosodic boundary strength

Nicolas Bertrand and Cassandra Freiberg

Université Côte d'Azur, CNRS, BCL and Humboldt-Universität zu Berlin, IdSL

The aim of this talk is to present preliminary results of our investigation into the prosodic, syntactic and information-structural properties of those combinations of Narrow Focus and Verb in Homeric Greek where the Narrow Focus is placed at the end of one verse while the Verb follows at the beginning of the next, cf. (1). These instances constitute a subtype of integral or necessary enjambement (Kirk 1966, Higbie 1990).

(1) τὸν δ' ἕτερον ξίφεϊ μεγάλῳ [κληῖδα παρ' ᾦμον]$_{\text{Narrow Focus}}$
[πλῆξ']$_{\text{Verb}}$, ἀπὸ δ' αὐχένος ᾦμον ἐέργαθεν ἠδ' ἀπὸ νώτου. (Hom. *Il.* 5.146–147)

Their existence is especially intriguing as there are otherwise reasons to believe that the prosodic links between *Narrow Focus* + *Verb* are tighter than with any other information-structural configuration, since, as a rule, they have to be continuous (Matić 2003: 619–625, Bertrand 2010: 351–356): Compared to other pairs of constituents, the sequence Narrow Focus + Verb exhibits a higher rate of non-caesural breaks and lower rates of caesurae and line-ends; there are also significantly more *liaison* phenomena (elision, resyllabification, latent segments, onset gemination, epic correption). Prosodic breaks between Narrow Focus and Verb arguably constitute boundaries between phonological phrases (φ-phrases) at the most (cf. Foley's [1990: 81–82] hierarchy of verse-internal prosodic breaks). However, Homeric hexameter verse ideally corresponds to exactly one clause in syntax, i.e. also one basic information-structural domain, as well as one intonational phrase (ι-phrase) in phonology (Devine & Stephens 1994: 400, but cf. Allan 2009, Bakker 1997: 50, 147f.). A line end separating Narrow Focus from Verb may thus imply a promotion of the break to the status of ι-phrase boundary.

Starting from this hypothesis, we examined all 87 instances of Narrow Focus + Verb in enjambement that can be retrieved from Bertrand's reference corpus on Homeric information structure, which consists of *Iliad* books 5, 22 and *Odyssey* books 1, 9, 20 (Bertrand 2010). We compared them to the same number of instances of Narrow Focus +

Verb that were (a) placed within the same metrical *colon*, (b) separated by a caesura of Fränkel's (1926) type C, (c) separated by a caesura of type B.

Our results suggest that both information-structural factors as well as reasons of cognitive or prosodic processing may lead to an increase in prosodic boundary strength: Separation by a caesura of type B or verse end is more likely with contrastive foci as in (2). Additionally, enjambement is favoured by cases where one of the elements is informationally heavier, such as presentative clauses like (3). Likelihood of enjambement however also increases together with the syntactic complexity as well as the number of morae of the Narrow Focus constituent. Interestingly, the presence of a negation within the clause seems to favour enjambement too, cf. again (2). – The example instances illustrate that the actual occurrence of enjambement can be put down to a single driving factor in some cases, but requires a multifactorial explanation in others.

(2) Κύκλωψ, οὐκ ἄρ' ἔμελλες [ἀνάλκιδος ἀνδρὸς ἑταίρους]$_{\text{NFoc}}$
[ἔδμεναι]$_{\text{V}}$ ἐν σπῆϊ γλαφυρῷ κρατερῇφι βίηφι. (Hom. *Od.* 9.475–476)

(3) ἦ μὲν γάρ θ' ὕδατι λιαρῷ ῥέει, ἀμφὶ δὲ [καπνὸς]$_{\text{NFoc}}$
[γίγνεται]$_{\text{V}}$ ἐξ αὐτῆς ὡς εἰ πυρὸς αἰθομένοιο· (Hom. *Il.* 22.149–150)

References

Allan, R. J. 2009, Orale elementen in de Homerische grammatica: Intonatie-eenheid en enjambement. *Lampas* 42, 136–151.

Bakker, E. J. 1997. *Poetry in speech: orality and Homeric discourse*. Ithaca & London. Cornell University Press.

Bertrand, N. 2010. *L'ordre des mots chez Homère: structure informationnelle, localisation et progression du récit*. PhD Dissertation. Paris, Université Paris 4 Sorbonne.

Devine, A. M. & L. D. Stephens. 1994. *The prosody of Greek speech*. New York & Oxford, Oxford University Press.

Foley, J. M. 1990. *Traditional oral epic: the Odyssey, Beowulf, and the Serbo-Croatian return song*. Berkeley, Los Angeles & Oxford: University of California Press.

Fränkel, H. F. 1926. Der kallimachische und der homerische Hexameter. *NAWG*, 197–229.

Higbie, C. 1990. *Measure and music: enjambement and sentence structure in the Iliad*. Oxford: Clarendon Press.

Kirk, G. S. 1966. Studies in some technical aspects of Homeric style. *YClS* 20, 73–152.

Matić, D., 2003. Topic, focus, and discourse structure: Ancient Greek word order. *StudLang* 27, 573–633.

A functional discourse approach to the particle ἀτάρ in classical Greek

Clara Lacerda Crepaldi

University of São Paulo

Discourse particles are usually said to be elusive elements of language, difficult to analyze either by sentence grammar or by logical semantics. A model that takes into account units larger than the individual clauses such as Functional Discourse Grammar (FDG) seems better suited to understand the ways in which particles facilitate the processing and comprehension of discourse. In classical Greek drama (Aeschylus, Sophocles, Euripides and Aristophanes), the particle ἀτάρ designates two main types of contrast. In its most common usage, it marks a discourse contrast, a boundary in conversational structure, such as the beginning of a new exchange or adjacency pair (e.g. Eur. *Hec*. 671). More specifically, ἀτάρ can signal a change of addressee (Eur. *Cyc*. 83); the introduction of a new topic or new visual focus (Eur. *Ba*. 248); or an abrupt thematic discontinuity such as an interruption (Eur. *Ion* 433). Moreover, ἀτάρ can also mark denial of expectation, especially when preceded by a preparatory μέν (Eur. *Tr*. 344; S. *Tr*. 761). When expressing counterexpectation, the particle instructs the addressee to process the next discourse segment in such a way as to contradict or eliminate some piece of information possibly inferred from the preceding segment. Very similarly, the classical prose of Herodotus, Plato and Xenophon shows analogous usages of ἀτάρ, namely, as a boundary between larger portions of discourse with or without thematic discontinuity, or as a marker of denial of expectation between acts and moves. Taking into consideration both discourse structure and the pragmatics of contrast, this paper aims to provide a comprehensive and unified account of ἀτάρ in classical Greek.

Keywords: Greek particles, contrast, pragmatics, Functional Discourse Grammar.

References

Aijmer, K. 2002. *English discourse particles*: *evidence from a corpus*. Amsterdam: Benjamins.

Allan, R. J. 2017. Ancient Greek Adversative Particles in Contrast. In C. Denizot, O. Spevak (ed.). *Pragmatic Approaches to Latin and Ancient Greek*, 273-301. Amsterdam: Benjamins.

Allan, R. J. (in preparation). *Classifying Greek Particles: a Functional Discourse Grammar Approach*.

Bonifazi, A. 2012. *Homer's Versicolored Fabric*: *The Evocative Power of Ancient Greek Epic Word-Making*. Washington, D.C.: Center for Hellenic Studies.

Bonifazi, A., A. Drummen, M. de Kreij. 2016. *Particles in Ancient Greek Discourse*: Five Volumes Exploring Particle Use across Genres. Hellenic Studies Series 74. Washington, DC: Center for Hellenic Studies.

Crepaldi, C. L. 2018. *Partículas adversativas do grego antigo:* ἀτάρ, ἀλλά, μέντοι e καίτοι em Eurípides. 151f. Tese de doutorado (Letras Clássicas), Universidade de São Paulo, São Paulo.

Degand, L., B. Cornillie, P. Pietrandrea (eds.). 2013. *Discourse markers and modal particles: Categorization and description*. Amsterdam: Benjamins.

Denniston, J. D. 1996 [1950]. *The Greek Particles*. (2nd ed., revised by K. J. Dover). London: Bristol Classical Press.

Duhoux, Y. 2006. Les particules: une classe de mots à supprimer en grec ancien? In E.Crespo, J. De la Villa, A. R. Revuelta (eds.). *Word Classes and Related Topics in Ancient Greek*: Proceedings of the Conference on 'Greek Syntax and Word Classes' held in Madrid on 18-21 June 2003, 519-536. Louvain-la-Neuve: Peeters.

Duhoux, Y. 1997. Quelques idées reçues, et néanmoins fausses, sur les particules grecques. *L'Antiquité Classique* 66, 281-288.

Emde Boas, E. van. 2017. Analyzing *Agamemnon*: Conversation Analysis and Particles in Greek Tragic Dialogue. *Classical Philology* 112(4), 411-434.

Hengeveld, K., J. L. Mackenzie. 2008. *Functional Discourse Grammar*: a typologically-based theory of language structure. Oxford: Oxford University Press.

Inglese, G. 2018. Connectives and discourse markers in Ancient Greek: the diachrony of atár from Homeric Greek to Classical Attic. *Journal of Greek Linguistics* 18, 93-123.

Julia, M.-A. 2001. Les particules αὐτάρ et ἀτάρ. Passerelles entre la structuration sintactique et la structuration informativa de l'enoncé ? *Revue de philologie, de littérature et d'histoire anciennes* 75(1), 83- 98.

Kroon, C. 1995. *Discourse Particles in Latin*: *a study of nam, enim, autem, vero and at*. Amsterdam: J. C. Gieben.

Kroon, C. 1998. A framework for the description of Latin discourse markers. *Journal of pragmatics* 30, 205-223.

Lakoff, R. 1971. If's, and's and but's about conjunction. In C. J. Fillmore, D. Terence Langedoen (eds.). *Studies in Linguistic Semantics*, 114-149. New York: Irvington.

Loudová, K. B. 2013. Particles (Formal Features). In G. K. Giannakis (ed.). *Encyclopedia of Ancient Greek Language and Linguistics.* Leiden: Brill.

Revuelta Puigdollers, A. R. 2009. Particles and Discourse Cohesion in Ancient Greek. In G. K. Giannakis et al. (eds.), *Proceedings of the 8th International Conference on Greek Linguistics* (August 30th–September 2nd, 2007), 394–405. Ionnina: University of Ionnina.

Revuelta, A. 2013. Particles (Syntactic Features). In G. K. Giannakis, Georgios K. (ed.). *Encyclopedia of Ancient Greek Language and Linguistics.* Leiden: Brill.

Rijksbaron, A. (ed.). 1997. *New Approaches to Greek particles*: proceedings of the colloquium held in Amsterdam, January 4-6, 1996, to honour C.J. Ruijgh on the occasion of his retirement. Amsterdam: J.C. Gieben.

Rudolph, E. 1996. *Contrast*: adversative and concessive relations and their expressions in English, German, Spanish, Portuguese on sentence and text level. Berlin/New York: Walter de Gruyter.

Souletis, M.-A. 1998. *Chaines pronominales dans l'Iliade*: ordre fixe, variations d'ordre et fonctions de quelques particules. 634 f. Thèse de doctorat (Sciences historiques et philologiques), École Pratique des Hautes Études, Paris.

Thijs, K. 2017. The Attic particle μήν: intersubjectivity, contrast and polysemy. *Journal of Greek Linguistics* 17, 73-112.

Ancient grammars and formal linguistics

Paola Crisma, Cristina Guardiano, and Giuseppe Longobardi

University of Trieste, Università degli Studi di Modena e Reggio Emilia, University of York

Fundamental evidence for investigating the syntax of contemporary languages is provided by native speakers' grammaticality judgements, in particular by the contrast between grammatical and ungrammatical structures: virtually all the syntactic analyses proposed in a generative framework crucially rely at some point on access to this type of contrasts. Now, when investigating ancient or mediaeval languages, the underlying grammar must be reconstructed on the basis of what qualifies as a random sample of E-language (a collection of extant texts), which may be non-uniform (different dialects, genres, registers, etc.), variously corrupted (scribal errors, late copies, physical damage to the manuscripts, etc.), and generally with no explicit indication as to which structures are ungrammatical (apart from the accidental existence of some grammatical treatise). Though this situation may not be the ideal one for the linguist, it resembles some conditions of first language acquisition and may represent a good testing ground for models of the latter. In this presentation, we work out a practical system of parameter setting which enables one to decide parameter values on the basis of closed and limited *corpora*, with interesting consequences for the study of language history and language acquisition. This model will be tested and validated through Ancient Greek, Latin, Old-Middle English, and Gothic datasets.

In classical parameter theories, each parameter is associated with a cluster of empirical manifestations, with different saliency (Chomsky 1981). This structure predicts three types of facts:

(1) a. the grammaticality of some core manifestations

b. the grammaticality of some peripheral manifestations

c. the ungrammaticality of other structures

The written corpora available to historical linguists do not contain explicit indication of ungrammatical structures (1b) and are quite unlikely to contain peripheral manifestations (1c): thus, the evidence available to linguists to reconstruct the grammar of ancient languages (i.e. to set parameters) actually reduces to (1)a.

Our model is based on the following tenets:

(2) a. UG (S_0) doesn't contain a list of parameters, but at most a set of abstract parameter *schemata* (Longobardi 2005, 2018), as well as some invariant principles

b. only positive evidence is used to set parameters: simple existential assertions of the form 'the property X occurs in the E-language Y'

c. no parameter is set on the basis of peripheral patterns/structures.

Given this theoretical background, we propose that the notion of 'parameter setting' reduces to the addition of structure to the initial state when positive evidence requires it, i.e. when such addition is needed to parse an utterance which contains a *p-expression* of a parameter (Clark and Roberts 1993). In the absence of positive evidence, the mental grammar remains in the initial (default, unmarked) state. Therefore, in this framework, the expression 'parameter P has the value [−]', i.e. the state '[−]parameter P', is a useful metaphor for linguistic description, but has no reality in the mental grammar at any stage.

For the purposes of the present work, we selected 25 parameters, constrained by the *schemata* of (2)a, which define (co-)variation patterns in the subdomain of nominal determiners in 87 modern languages from ~20 families. Each parameter is associated with a list of one or more covarying manifestations, which cover all the evidence available to linguists, including (1)b and (1)c. In order to devise a practical tool to set parameter states when the evidence available is limited to (1a), for each of the 25 parameters selected for this study, we excluded the manifestations which include negative statements (1b), as well as those which, because of their structural or pragmatic complexity, could be classed as peripheral (1c). This resulted in what we call the *R*(*estricted*)*-List* for each parameter, namely a subset containing only the core manifestations (1a) of that parameter.

We applied the *R-List* to *corpora* from three varieties of Ancient Greek (Homeric, Classical and New Testament koiné), one of Latin, and four Germanic varieties: Gothic, *Beowulf*, Old English prose, Middle English. The parameter settings for the 25 parameters in these ancient languages are summarised in Table 1.

As a practical example of the implementation of this procedure, we use parameter *Grammaticalized Specified Quantity* of Table 1. The parameter asks whether a language grammaticalizes the definiteness value on its nominal arguments, i.e. overtly expresses an operator of maximality in the relevant domain of discourse. This parameter has four different types of empirical manifestations which provide evidence for the value [+]. Of these manifestations, two set the parameter on the basis of relatively limited text (i.e. of few lines/verses), the other two may be encountered occasionally. With speakers of modern languages, these manifestations are hard to elicit: thus, their rarity in the texts is expected, though they are predictable from core manifestations (*poverty-of-stimulus*: Chomsky 1980). Examples (3a) and (3b) provide evidence of manifestation (a) in New Testament Greek and West Saxon, respectively.

As mentioned above, the *R-list* does not contain manifestations which set the value [−] of the parameter: if none of the questions which set the value [+] of the parameter receives the answer YES, the parameter is assigned a default value, that we represent through the symbol [−]. It is however reasonable to expect that a language may contain positive

evidence for the value [−] of a certain parameter, namely that there exist visible structures which are (logically or typologically) incompatible with the value [+]: this type of evidence is of great practical value to the linguist while searching written corpora, because it signals that the search for manifestations of the value [+] for that parameter can stop altogether. As far as parameter DGR is concerned, there are at least two manifestations which allow one to assign the value [−]: one (Sa) can be found in relatively limited portions of text, the other (Sb) may be encountered occasionally. Examples (4a) and (4b) provide evidence for manifestation (Sa) in New Testament Greek and West Saxon, respectively. Table 2 shows the whole set of manifestations which set the values of the parameter in all the varieties considered and in some of their modern descendants (English, Italian, Greek).

The other 24 parameters in our dataset have similar properties, and the *R-List* of their manifestations (along with general hypotheses about default states) provides a decision procedure that sets virtually all the 25 parameters solely from relatively short texts, proving (1) to attain a very good approximation to descriptive adequacy for each of them individually, (2) to minimize the differences between contiguous stages of the same E-language, (3) to make strong and correct typological predictions on wider sets of languages.

This tool offers new perspectives for closed-*corpora* languages: (i) it opens the possibility of near-mechanically inferring the I-language that generated each specimen of E-language (=text); (ii) it represents diachronic developments as series of minimal resettings; (iii) it allows one to compare languages only scantily attested or not endowed with annotated *corpora* to languages with abundant and machine-annotated sources.

	Label	Parameter	Implication(s)	Lat	HG	ClG	NTG	Got	Bw	WS	ME	
1	FGM	± grammaticalized morphology		+	+	+	+	+	+	+	+	1
2	FGP	± grammaticalized person	+FGM	+	+	+	+	+	+	+	+	2
3	FSP	± semantic person	¬+FGP	0	0	0	0	0	0	0	0	3
4	FGK	± grammaticalized case	+FGM	+	+	+	+	+	+	+	+	4
5	SPK	± spatial Cases	+FGK	-	-	-	-	-	-	-	-	5
6	FPC	± grammaticalized perception		-	-	-	-	-	-	-	-	6
7	FGT	± grammaticalized temporality		-	-	-	-	-	-	-	-	7
8	FGN	± grammaticalized number	+FGM	+	+	+	+	+	+	+	+	8
9	GCO	± grammaticalized collective number	-FGN	0	0	0	0	0	0	0	0	9
10	PLS	± plurality spreading	-FGN	0	0	0	0	0	0	0	0	10
11	FND	± number in D	+FGN or +GCO	+	+	+	+	+	+	+	+	11
12	FSN	± number spread to N	+FND	+	+	+	+	+	+	+	+	12
13	FNN	± number on N	+FSN	+	+	+	+	+	+	+	+	13
14	FGG	± grammaticalized gender	+FGN	+	+	+	+	+	+	+	-	14
15	FSG	± semantic gender	+FGN	+	+	+	+	+	+	+	+	15
16	CGB	± unbounded sg N	+FND	-	-	-	-	-	-	-	-	16
17	DGR	± grammaticalized Specified Quantity	-FPC, +FGN	-	-	+	+	-	-	+	+	17
18	DGP	± grammaticalized text anaphora	¬+DGR	-	-	0	0	+	-	0	0	18
19	CGR	± weak Specified Quantity	-CGB, +DGR	0	0	+	+	0	0	+	-	19
20	NSD	± weak person	+FGP	-	-	-	-	?	+	?	+	20
21	FVP	± variable person	-NSD	?	?	+	?	0	0	0	0	21
22	DGD	± grammaticalized distality	-FSN or +DGR	0	0	-	-	0	0	-	-	22
23	DPQ	± free null partitive Q	+FNN, -CGB	-	-	-	-	-	-	-	-	23
24	DCN	± article-checking N	-FSN or +DGR	0	0	-	-	0	0	-	-	24
25	DNN	± null-N-licensing art	-DCN	0	0	+	+	0	0	+	-	25
	Label	Parameter	Implication(s)	Lat	HG	ClG	NTG	Got	Bw	WS	ME	

Table 1

DGR	± grammaticalized Specified Quantity	-FPC, +FGN	Lat	HG	ClG	NTG	Got	Bw	WS	ME	E	It	Grk
a	Nominal arguments denoting the maximal amount of entities whose presence is inferred from the previous context bear an overt marker that is absent from the same nominals occurring with a non-maximal reading	YES = +			Y	Y			Y	Y	Y	Y	Y
b	Argument common nouns denoting a specific entity considered unique by the speaker and the hearer bear an overt marker that is absent when such an entity is not considered unique	YES = +			Y	Y			Y	Y	Y	Y	Y
c	Singular count nominal arguments referring to the whole kind named by that noun bear an overt marker that is absent in other instances	YES = +									Y	Y	Y
d	Mass/plural nominal arguments referring to the whole kind named by that noun bear a dedicated marker that is absent in other instances	YES = +									Y	Y	Y
Sa	Bare nominal arguments can be interpreted as definite	YES = -	Y	Y			Y	Y					
Sb	Bare singular count/plural/mass nouns in the complement of a telic predicatecan be interpreted as (non kind-referring) bounded.	YES = -											
	PARAMETER VALUE		-	-	+	+	-	-	+	+	+	+	+

Table 2

(3) a. καὶ εἶδεν πλοῖα δύο ἑστῶτα παρὰ τὴν λίμνην, **οἱ δὲ ἁλεεῖς** ἀπ᾽αὐτῶν ἀποβάντες ἔπλυνον τὰ δίκτυα.

b. & he geseah twa scipu standende wið þæne mere. **Ða fisceras** eodun & wohson heora nett. (ID cowsgosp, Lk_[WSCp]:5.2.3895)

‘and he saw two boats standing by the lake. (but) **The fishermen** had gone and washed their nets.’

(4) a. στησαμένη μέγαν ἱστὸν ἐνὶ μεγάροισιν ὕφαινε […] ἔνθα καὶ ἠματίη μὲν ὑφαίνεσκεν **μέγαν ἱστόν**

‘She set up a great web in the palace, […] then day by day she weaved at the **great web**’ (β, 94-104)

b. Aledon þa **leofne þeoden** beaga bryttan on bearm scipes (ID cobeowul, 4.34.32)

‘they laid down **the beloved king**, the giver of rings, in the center of the ship’

Possibility and necessity in non-finite modal forms of Homeric Greek

Saverio Dalpedri

Georg-August-Universität Göttingen

Modality has long been a favourite topic in the scholarship on Ancient Greek language—cf., among others, Goodwin (1865) through Willmott (2007). However, most studies have mainly concentrated on the expression of modality and the speaker's attitude (subjectivity) by finite verb forms—e.g. Danesi et al. (2018) and La Roi (2019), only to mention the most recent ones—, with particular reference to modal particles, e.g. ἄν/κε(ν), ἄρα, δή, που (cf. Bartolotta and Kölligan 2018). In the realm of complex predicates, relatively well-studied are the so-called gerundives or *participia necessitatis*, i.e. verbal adjectives built with the suffix *-téo-* and expressing necessity or obligation (cf. Willi, 2009 on the origin of these forms).

The other class of Ancient Greek verbal adjectives, those carrying the suffix *-tó-*, is commonly taken to be equivalent to past passive participles (though they also can be described as resultative participles, for they are compatible with some unaccusative verb roots; cf. ex. 1), but it can express the modal notions of possibility (cf. ex. 2) and, sporadically and only in Homer, necessity (cf. ex. 3), too. When the adjective is used predicatively, only the latter function is possible (cf. ex 2), while when it modifies an NP both usages are attested (cf. ex. 1 and 3). The explanation for this syntactic behaviour is straightforward: a passive (or resultative) verbal adjective used along with the copula would be functionally equivalent to the perfect tense, giving rise to redundancy (note that a periphrastic perfect built with the perfect middle participle is attested already since Homer).

While the function of the verbal adjectives in *-tó-* as resultative participles is inherited from PIE, their modal values seem to be an innovation (though not exclusive to the Greek branch). Benveniste (1948) already proposed to recognize the source for this innovation in the negated forms, both with syntactic negation and with affixation (ἀ(ν)-). In my presentation, I will show that the Homeric data seem to confirm Benveniste's hypothesis. In particular, I will propose a pragmatic account for the development of modal predicates out of resultative verbal adjectives triggered by negation. The notion of possibility seems to be primary: the non-factuality of an event can lead to a pragmatic inference over the possibility of the realization of the event—or, in other words, the hearer infers that something undone is such since it cannot be done, is undoable (epistemic modality). This process would thus be an instance of subjectification as described by Traugott and Dasher (2002), i.e. of grammaticalisation of the speaker's attitudes towards the content of an

uttered sentence. The notion of necessity surfacing in a few instances of negated verbal adjectives is explained in a similar way. This would instantiate a case of syncretism in the expression of deontic and epistemic modality under negation, which is typologically not uncommon (e.g. It. *(non) potere*, unlike Germ. *sollen/müssen* vs. *nicht dürfen*). However, the semantic extension to deontic modality within verbal adjectives in *-tó-* was never carried out for non-negated forms in the history of the Greek language. It remained confined to negated forms, and only in Homer, and the expression of deontic modality was later taken over by the newly created verbal adjectives in *-téo-*. This sort of aborted semantic extension is supported by typological generalisations concerning the direction of semantic change: deontic > epistemic, and not vice-versa, as per Bybee et al. (1994), van der Auwera and Plungian (1998) and Narrog (2005, 2012). This type of approach to modality in Ancient Greek, taking subjectification as a central force in language change, has recently been fruitfully pursued by Allan (2013, 2017) and Danesi et al. (2018).

In the scenario I will sketch, the semantic change at stake is not necessarily speaker- driven: instead, it is the hearer who infers an implicature (the non-possibility) over the circumstances of the non-factuality of the negated event and, through reanalysis, can subsequently overextend this modal interpretation to non-negated, factual events. Bridging contexts open to both readings (the passive-resultative and the epistemic) reinforce the hypothesis that we face a process of grammaticalisation of hearer-driven pragmatic implicatures, not dissimilar to that sketched by Eckardt (2009).

(1) πεῖσμα δ’ ἔλυσαν ἀπὸ τρητοῖο λίθοιο
hawser:ACC.SG PTCL unleash:AOR.3PL off perforated:VA.GEN.SG stone:GEN.SG
‘they unleashed the ship’s cable off the perforated stone’ (Od. 13, 77)

(2) ἔνθα μάλιστα | ἀμβατός ἐστι πόλις
where mostly accessible:VA.NOM.SG is city:NOM.SG
‘where the city is most easily accessible’ (Il. 6, 433f.)

(3) ὤιχετ’ ἐποψόμενος Κακο-ἴλιον οὐκ
leave:IMPF.3SG see:PTCP.FUT.NOM.SG.M evil-Ilion:ACC NEG
ὀνομαστήν
mentionable:VA.ACC.SG
‘he (scil. Odysseus) left to see evil, not-to-be mentioned Ilion’ (Od. 6, 260)

References

Allan, R. J. 2013. Exploring modality’s semantic space: Grammaticalization, Subjectification and the case of *ὀφείλω*. *Glotta* 89, 1–46.

Allan, R. J. 2017. The history of the future: Grammaticalization and subjectification in Ancient Greek future expressions. In F. Lambert, R. J. Allan, and T. Markopoulos (ed.), *The Greek future and its history. Le futur grec et son histoire*, volume 139 of *Bibliothèque des cahiers de linguistique de Louvain*, 43–72. Peeters, Louvain-la- Neuve.

Bartolotta, A. and Kölligan, D. 2018. Modality and Injunctive in Homeric Greek: the case of counterfactual and epistemic constructions. Paper presented at the *9th International Colloquium on Ancient Greek Linguistics*, Helsinki.

Benveniste, É. 1948. *Noms d'agent et noms d'action en indo-européen*. Adrien-Maisonneuve, Paris.

Bybee, J. L., R. D. Perkins and W. Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

Danesi, S., C. A. Johnson, and J. Barðdal. 2018. Where does the modality of Ancient Greek modal verbs come from? The relation between modality and oblique case marking. *Journal of Greek Linguistics* 18(1), 45–92.

Eckardt, R. 2009. APO: Avoid Pragmatic Overload. In M.-B. Mosegaard Hansen and J. Visconti (eds.), *Current trends in diachronic semantics and pragmatics*, Studies in Pragmatics, 21–41. Brill.

Goodwin, W. W. 1865. *Syntax of the moods and tenses of the Greek verb*. Sever and Francis, Cambridge, 2nd edition.

La Roi, E. 2019. Epistemic modality, particles and the potential optative in Classical Greek. *Journal of Greek Linguistics* 19(1), 58–89.

Narrog, H. 2005. Modality, mood and change of modal meanings: A new perspective. *Cognitive Linguistics* 16, 677–731.

Narrog, H. 2012. Modality, subjectivity, and semantic change: A cross-linguistic perspective. Oxford: Oxford University Press.

Traugott, E. C. and R. B. Dasher. 2002. *Regularity in semantic change*. Cambridge University Press, Cambridge.

Van der Auwera, J. and V. A. Plungian. 1998. Modality's semantic map. *Linguistic Typology* 2(1), 79–124.

Willi, A. 2009. Zur Ursprung und Entwicklung der griechischen Verbaladjektive auf *-τέος*. *Rivista di Filologia e di Istruzione Classica* 137, 7–22.

Willmott, J. 2007. *The moods of Homeric Greek*. Cambridge Classical Studies. Cambridge: Cambridge University Press.

Classical Greek split DPs as diagnostics for the relations between split CPs and split vPs in Phase Theory

Richard Faure

Univ. Côte d'Azur, CNRS, BCL

This paper claims that the verb phrase (vP) and complementizer phrase (CP) domains are in a tighter relationship in the Classical Greek (henceforth CG) clause than was assumed before. In particular, uninterpretable discourse features non-randomly distribute between them, so that phrases reaching the CP domain have a more complex feature structure that phrases that stop at the vP edge. Moreover, movements to CP are necessarily fed by preliminary movements to the vP edge. While grounded in the Cartographic enterprise, this study contributes to limiting the proliferation of projections and clarifying the constraints bearing on their ordering and interactions.

CG is known for its rather flexible word order. Yet, this flexibility is not free variation, but is informationally driven (Dik 1995; Matić 2003; Bertrand 2010). These works have provided us with a fine-grained pattern of the CG clause. Here is Bertrand)'s scheme adapted according to Bertrand & Faure's (2018) results.

(1) Non-ratified topics – WHFoc – Ratified topics – Focus – Ratified topics –
VERB – Ratified topics – Other presupposed elements/tail

As can be noted, most of the discourse projections are located right before the verb and at the very beginning of the clause, i.e. in the vP and CP domains, as can be seen if the subject position and the vP, IP and CP projections are added to this scheme (see Goldstein 2016), although vP is not incorporated in the picture he gives):

(2) [$_{CP}$ Non-ratified topics – WHFoc – Ratified topics [$_{IP}$ SUBJECT – [$_{vP}$ Focus –
Ratified topics – VERB – Ratified topics – Other presupposed elements/tail

Note that this picture roughly matches what was found in the Cartographic enterprise (among many others: Rizzi 1997 for the CP domain; Chomsky 2001; Jayaseelan 2001; Belletti 2004; a number of variations are found depending on the language). What was barely explored in Cartographic studies is the relationship between the two discourse areas: the vP edge and the CP domain. Examining it can provide us with a better understanding of how syntax and discourse interact. CG is a vantage point for this study, since it makes this interaction visible through the split DP phenomenon (Devine & Stephens 2000; Biraud 2014; Goldstein 2016, a.o.). This phenomenon occurs with

definite as well as indefinite DP and can be illustrated with (3) (Demosthenes 18.274, from Biraud 2014, ex. 26, the verb is underlined, the moved part is in bold and the copies are stricken out).

(3) [**παρὰ** μὲν τοίνυν **τοῖς ἄλλοις**] ἔγωγ' [~~παρὰ τοῖς ἄλλοις~~] <u>ὁρῶ</u>
at ptc then the other-DAT I see-PSR.1SG
[~~παρὰ τοῖς ἄλλοις~~ πᾶσιν ἀνθρώποις] διωρισμένα καὶ
all people-DAT defined and
τεταγμένα πως τὰ τοιαῦτα.
established somehow the such
'Among other people I find this sort of distinction universally observed.' (Vince)

That there is movement is shown by the (dative plural) agreement between τοῖς ἄλλοις and ἀνθρώποις, which elsewhere occurs only locally. This kind of movement cannot happen freely, as shown by the particle μέν, which marks contrastive topics (Dal Lago 2010; Goldstein 2016), the obvious trigger of the split here.

More examples come from *wh*-movement as in (4) (Euripides *Bacchae* 1288):

(4) Λέγ', [**ὡς τὸ μέλλον**] καρδία
speak how the to.come-ACC.NT.SG heart-NOM
[~~**ὡς τὸ μέλλον**~~ <u>πήδημ']</u> <u>ἔχει</u> [~~**ὡς τὸ μέλλον**~~ <u>πήδημ'</u>].
leap-ACC.SG have-PRS.3SG
'Tell me. My heart leaps at what is to come.' (Buckley)

In this passage of Euripides' *Bacc.*, Agave has just found out that she killed her own son. Now Kadmos is about to tell her more about what happened. Example (4) is an exclamative clause by which Agave expresses her fear. She asserts that her heart leaps, so the subject καρδία 'heart' is given and the focus is on πήδημ[α] 'leap', which is moved from its base position (objects are to the right of the verb, CG is a SVO language, see Devine & Stephens 2000) to the narrow focus position, right before the verb, at the vP edge, as expected. But what is scaring for Agave is Kadmos' discourse to come, which is indicated by the DP subpart (ὡς) τὸ μέλλον 'to come'. This subpart (and only it) then undergoes an additional movement to the CP domain, to the WHFocus position (which hosts exclamative phrases). This stepwise derivation shows that the upper (WH)Focus position is fed by a preceding movement to the narrow focus position at the vP edge.

Theoretically, this is expected in the frame of the strong version of Phase theory (Chomsky 2000). The Phase Impenetrability Condition dictates that a phase is sent to spell-out when it is completed except for its edge, so that no head belonging to the next phase can probe into it, except into its edge. CP and vP are phases. This means that in (4), if ὡς τὸ μέλλον had not been raised to the Narrow Focus position first, it would not have

been available for further movement. The DP is born with two discourse feature: [[(ὡς) τὸ μέλλον]$_{\text{WHFocus}}$ πήδημα]$_{\text{NarrowFocus}}$.

The same demonstration is possible for topic elements: In (3), an intermediate (here invisible, but see the copy) movement of παρὰ τοῖς ἄλλοις right above ὁρῶ must be posited (to the position 'Ratified Topic', see 2, but it is better accounted for if taken to just encode Givenness, which makes it potentially compatible as a step feeding movement to the Non-ratified Topic projection). The second movement is motivated by the Contrast feature indicated with μέν.

To conclude, CG is known for being discourse prominent in its word ordering. This paper shows how this might work. First it is derivational, second, CG has positions devoted to discourse along with other positions devoted to argumental functions. The access to the discourse positions is constrained by the discourse features carried by the phrases and obeys the principles of phase theory. This study is also a contribution to a better, more general understanding of how discourse features are bundled and interact with their probes: Discourse functions encoded in the CP domain are complex and presuppose simplex features that are checked at the vP edge.

References

Belletti, A. 2004. Aspects of the low IP area. In L. Rizzi (ed.), *The Structure of IP and CP. The Cartography of Syntactic Structures. Vol. 2*, 16-51. Oxford: Oxford University Press.

Bertrand, N. 2010. *L'ordre des mots chez Homère : structure informationnelle, localisation et progression du récit*. Paris: Université Paris IV-Sorbonne.

Bertrand, N. & R. Faure. 2018. Καὶ τί ἂν εἰπεῖν τις ἔχοι; Expression(s) of Focus in questions in Demosthenes. Paper presented at the *International Colloquium on Ancient Greek Linguistics ICAGL 9*, 30 August – 1 September, Helsinki.

Biraud, M. 2014. ὁ αὐτὸς οὗτος N : une structure de syntagme nominal propre à la classe des spécifiants du nom en régime rhétorique. *Glotta* 90, 72-87.

Chomsky, N. 2000. Minimalist inquiries: The framework. In R. Martin, D. Michaels & J. Uriagereka (eds.), *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, 89-155. Cambridge: MIT Press.

Chomsky, N. 2001. Derivation by phase. In M. Kenstowicz (ed.), *Ken Hale : A life in language*, 1-52. Cambridge (MA): MIT Press.

Dal Lago, N. 2010. Fenomeni di prolessi (pro) nominale e struttura della periferia sinistra nel greco di Senofonte. Padova: Università degli studi di Padova.

Devine, A. M. & L. D. Stephens. 2000. *Discontinuous syntax: hyperbaton in Greek*. Oxford-New York: Oxford University Press.

Dik, H. 1995. *Word order in ancient Greek: a pragmatic account of word order variation in Herodotus*. Amsterdam: JC Gieben.

Goldstein, D. 2016. *Classical Greek Syntax. Wackernagel's Law in Herodotus*. Amst.: Brill.

Jayaseelan, K. A. 2001. IP-internal topic and focus phrases. *Studia Linguistica* 55, 39-75.

Matić, D. 2003. Topic, focus, and discourse structure : Ancient Greek Word Order. *Studies in Language* 27, 573-633.

Rizzi, L. 1997. The fine structure of the left periphery. In L. Haegeman (ed.), *Elements of grammar*, 281-337. Dordrecht: Kluwer.

Support-Verb Constructions in Greek: Methodology and data collection

Victoria Beatrix Fendel

University of Oxford

Support-Verb Constructions (SVCs) are a type of verbal Multi-Word Expression (MWE). SVCs consist of two components, the Support Verb (SV) and the Predicative Noun (PN) , as in German eine Entscheidung treffen, English to take a decision and French prendre une décision. While the SV has primarily syntactic functions (treffen, to take, prendre), the PN bears the semantic weight (Entscheidung, decision, décision). To put it differently, the SV determines the argument structure in an SVC, whereas the PN determines the participant structure (Danlos, 1992; Wittenberg, 2016). The fact that the element dominating the structure on the syntactic level is different from the element dominating the structure on the semantic level results in mismatches between the two levels. Thus, SVCs are a good testing ground for investigating the interface between syntax and semantics.

Simplistic descriptions of SVCs call the SV semantically empty and the PN syntactically irrelevant. Yet in fact, the SV and the PN have syntactic and semantic functions, yet to differing degrees (Alonso Ramos, 1998; Danlos, 1992; Giry-Schneider, 2004; Nakamura, 2007; Ulland, 1993). This situation has been captured in different ways. Kamber (2008) suggest a cline from more prototypical to less prototypical SVCs. By contrast, others have suggested distinct sub-groups either taking SVCs as a sub-group or taking SVC as the superordinate group (Schutzeichel, 2013; von Polenz, 1987). The crucial problem is the lack of definitional clarity as regards SVCs (Laporte, Ranchhod, & Yannacopoulou, 2008). The major dividing line runs between the Function-Verb Construction (FVC) approach, which is popular in German linguistics, and the SVC approach, which is popular for instance in French linguistics (Storrer, 2009). While the FVC line of research considers the Function Verb (FV) of primary importance, the SVC line of research focuses on the PN. This results in data collections that either start from the FV / SV or the PN (e.g. Giry-Schneider, 1978 starting from the SV; Ronan, 2012 starting from the PN).

With regard to literary Classical and Post-classical Greek, Jimenez Lopez has analysed SVCs starting from the SV (ποιέω / ποιέομαι) in his (2011 on Lysias) and (2016 on a large Classical corpus) articles and starting from the PN (συμβούλιον) in his (2017 on the New Testament) article. With regard to non-literary Classical and Post-classical Greek, Fendel (forthcoming on private letters in bilingual papyrus archives) looked at SVCs starting from the PN (χάρις) in the context of language contact. Older research literature

(Zilliacus, 1956, 1967) considered SVCs a periphrastic pattern (Crystal, 2008) rather than a pattern in its own right (by contrast Cuervo, 2010; Storrer, 2009 on internal grammaticalisation in SVCs). These works are interesting for their data collections only. Finally, Liddell-Scott-Jones ('TLG - Lexica', n.d.) seems to acknowledge four SVs: ἔχω'to have / to be' (A.I.8 habits, states), δίδωμι 'to give / to provide' (I.5), λαμβάνω 'to take, receive' (A.II.3 conception of feelings), ποιέω 'to do, make' (A.II.5 periphraseis).

These are cross-linguistically common candidates for SVs. Yet, on a small scale, the three SVCs quoted above – German eine Entscheidung treffen, English to take a decision and French prendre une décision – and their alternatives – English to make a decision (cf. British National Corpus) and French rendre une décision (cf. Le Monde corpus, 1998) – already show that the range of SVs is significantly wider. Furthermore, SVCs are usually classified as collocations, thus the range of SVs is language-specific. Equally, syntactic tests intended to distinguish between SVCs and structures that resemble SVCs are language-specific (Danlos, 2009; Jimenez Lopez, 2016; Langer, 2004, 2005).

The aim of this paper is two-fold. Firstly, the paper sets out a working definition of SVCs and evaluates how this definition can be operationalised for large-scale data collections, for instance in the Thesaurus Linguae Graecae (TLG) or the Duke Database of Documentary Papyri (DDbDP). Secondly, the paper evaluates the existing syntactic tests with regard to Classical and Post-classical Greek therein considering the difficulties a corpus language poses; the paper adopts Kamber's (2008) framework of Umrahmte Schnittmengen. By and large, the paper aims to put forward an alternative to studying SVCs in Classical and Post-classical Greek by solely relying on the findings for modern languages, such as the range of SVs or PNs.

References

Alonso Ramos, M. 1998. *Étude sémantico-syntaxique des constructions à verbe support*. Thesis, Université de Montréal. (Retrieved from http://lear.unive.it/jspui/handle/11707/2351)

Crystal, D. 2008. *A dictionary of linguistics and phonetics* (6th edition). (Retrieved from http://www.loc.gov/catdir/toc/ecip087/2007052260.html)

Cuervo, M. C. C. 2010. Two types of (apparently) ditransitive light verb constructions. In *Current Issues in Linguistic Theory*: Vol. 313. Romance Linguistics 2008: Interactions in Romance. Selected papers from the 38th Linguistic Symposium on Romance Languages (LSRL), Urbana-Champaign, April 2008, 139–155. (Retrieved from https://benjamins.com/catalog/cilt.313.14cue)

Danlos, L. 1992. Support verb constructions: Linguistic properties, representation, translation*. *Journal of French Language Studies* 2(1), 1–32. https://doi.org/10.1017/S0959269500001137

Danlos, L. 2009. *Extension de la notion de verbe support*. Retrieved from https://hal.inria.fr/inria-00524744

Fendel, V. (forthcoming). Greek in Egypt or Egyptian Greek? Syntactic regionalisms. In *Trends in Linguistics. Varieties of Post-classical and Byzantine Greek*. Berlin: De Gruyter.

Giry-Schneider, J. 1978. *Les Nominalisations en français: L'opérateur 'faire' dans le lexique*. Geneva: Droz.

Giry-Schneider, J. 2004. Les noms épistémiques et leurs verbes supports. *Lingvisticæ Investigationes* 27(2), 219–238. https://doi.org/10.1075/li.27.2.06gir

Jiménez López, M. 2011. El uso de ποιεῖσθαι en Lisias: Construcciones con verbo soporte. *Lingüística en la Red*, 9, 1–20.

Jimenez Lopez, M. 2016. On Support Verb Constructions in Ancient Greek. *Archivo Glottologico Italiano* 101(2), 180–204.

Jiménez López, M. 2017. Las colocaciones verbbonominales con συμβούλιον en el nuevo testamento: Un ejemplo de calco e interferencia linguistica. *Habis* 48, 219–239.

Kamber, A. 2008. *Funktionsverbgefüge-- empirisch: Eine korpusbasierte Untersuchung zu den nominalen Prädikaten des Deutschen*. Tübingen: Niemeyer.

Langer, S. 2004. A linguistic test battery for support verb constructions. *Lingvisticæ Investigationes* 27(2), 171–184. https://doi.org/10.1075/li.27.2.03lan

Langer, S. 2005. A formal specification of support verb constructions. In St. Langer, Schnorbusch, & Daniel (eds.), *Semantik im Lexikon*, 179–202. (Retrieved from https://hal.archives-ouvertes.fr/hal-01101490)

Laporte, E., E. Ranchhod, & A. Yannacopoulou. 2008. Syntactic variation of support verb constructions. *Lingvisticae Investigationes* 31(2), 173–185. https://doi.org/10.1075/li.31.2.04lap

Nakamura, T. 2007. Vers une description de la nominalisation objective propositionnelle, 137–144. (Retrieved from https://hal-upec-upem.archives-ouvertes.fr/hal-00621456/document)

Ronan, P. 2012. *Make peace and take victory: Support verb constructions in old English in comparison with old Irish*. Odense: University Press of Southern Denmark.

Schutzeichel, M. 2013. *Indogermanische Funktionsverbgefüge* (Westfälische Wilhelms-Universität). (Retrieved from https://d-nb.info/1138448397/34)

Storrer, A. 2009. Corpus based investigations on German support verb constructions. In *Research in Corpus and Discourse. Idioms and collocations: Corpus-based linguistic and lexicographic studies*, 164–187. London: Continuum.

TLG - Lexica. (n.d.). Retrieved 26 August 2019, from http://stephanus.tlg.uci.edu/Iris/demo/lexica.jsp

Ulland, H. 1993. *Les nominalisations agentive et instrumentale en français moderne* / Harald Ulland. (Vol. 182). Bern: Peter Lang.

von Polenz, P. 1987. Funktionsverben, Funktionsverbgefüge und Verwandtes: Vorschläge zur satzsemantischen Lexikographie. *Zeitschrift Für Germanistische Linguistik* 15(2), 169–189. https://doi.org/10.1515/zfgl.1987.15.2.169

Wittenberg, E. 2016. *With Light Verb Constructions from Syntax to Concepts*. Potsdam, Potsdam.

Zilliacus, H. 1956. Zur Umschreibung des Verbums in spätgriechischen Urkunden. *Eranos* 54, 160–166.

Zilliacus, H. 1967. *Zur Abundanz der spätgriechischen Gebrauchssprache*. Helsinki.

A realizational account of Homeric -φι(ν)

David Goldstein
UCLA

Although the morphology of Homeric Greek has been richly described and rigorously analyzed, from both a synchronic and diachronic perspective, most of this work is tacit about the relationship between morphosyntactic properties and their formal realization. This silence has perhaps been nowhere so troublesome as in the debates surrounding the morphosyntax of Homeric -φι(ν). One of the central issues in the scholarship on this suffix is the question of what category forms in -*φι*(*ν*) instantiate. Some maintain that they are adverbs; others contend that they are nouns. Evidence from agreement and prepositional phrases shows decisively that the latter analysis is correct. Building on this insight, I argue that -φι(ν) is an oblique case marker, which realizes genitive or dative case in the singular, dual, or plural. Crucial to this analysis is a realizational view of morphology, according to which all morphosyntactic information is independently available on the stem. I offer a novel synchronic analysis of Homeric -φι(ν) in Paradigm Function Morphology and demonstrate how this synchronic analysis in turn resolves a number of diachronic issues.

Ancient Greek verbal morphology from a Modern (Greek) perspective

Laura Grestenberger

University of Vienna

While Ancient Greek verbal (especially voice) morphology is a well-studied topic, its theoretical analysis and implications for linguistic theory are still somewhat neglected. By contrast, the Modern Greek verb and especially voice and valence alternations in Modern Greek have been the focus of a number of studies that have explored the connection between voice, aspect, and finiteness and their morphological expression (e.g., Anagnostopoulou 2003, Alexiadou and Anagnostopoulou 2004, 2008, Alexiadou et al. 2015, Panagiotidis et al. 2017).

In this paper I will focus on one particular debate surrounding the locality conditions on allomorphy in Modern Greek and show how it can advance our understanding of Ancient Greek verbal morphology. The issue is whether allomorphy is conditioned by strict node adjacency or by spans of ordered terminal nodes (Svenonius 2012, 2016). Merchant (2015) argues for the latter, based on evidence from stem allomorphy in Modern Greek that appears to be triggered by a combination of features of the higher heads Voice and Asp—a "span". The Modern Greek passive(/)perfective suffix *-th*(*i*)- plays a crucial role in this analysis: Merchant argues that -th- spells out the nonactive Voice head Voice[-act] in the context Asp[+pfv], and that together these heads trigger "stem" allomorphy of the root+*v*, (1a), while Christopoulos and Petrosino 2018 and Alexiadou 2018 argue that Modern Greek *-th-* spells out a fused Voice/Asp head, that phonologically empty heads like *v* in (1) are "pruned", and that therefore strict linear adjacency is sufficient to account for Modern Greek root (rather than stem) allomorphy, (1b).

(1) Modern Greek *sirthike* 'was dragged' (3sg.pfv.pass. of *serno* 'I drag')

a. Merchant 2015:

$\text{sir}_{\sqrt{+v}}$ $\text{-th}_{\text{Voice[-act]}}$ $\text{-ik}_{\text{Asp[+pfv]}}$ $\text{-e}_{\text{T[3sg,+past]}}$

b. Christopoulos & Petrosino 2018:

$\text{sir}_{\sqrt{}}$ $\text{-th}_{\text{Voice[-act],Asp[+pfv]}}$ $\text{-ik}_{\text{T[+past]}}$ $\text{-e}_{\text{AGR[3sg]}}$

However, both accounts fail to derive the fact that active/nonactive voice morphology is also expressed on the endings in Modern Greek verbs like (1), and that these verbs moreover select the active set of endings, i.e., the set of endings that is usually found in the context [-nonact] according to the standard analysis of Modern Greek "voice

syncretism" (e.g., Embick 2004, Alexiadou et al. 2015), which I have argued holds for Ancient Greek as well (Grestenberger 2016, 2018, Forthcoming).

The goal of this paper is to reassess this debate from the perspective of the Ancient Greek verbal complex, and especially the "passive" suffix *-thē-*, the ancestor of Modern Greek *-th*(*i*)-, which likewise co-occurs with the active endings. I propose an analysis with uniform exponence of Voice in Ancient Greek and a single, locally restricted environment for the realization of the "passive" suffix *-thē-*. This account improves upon previous realizational accounts of Aktionsart, Voice, and aspectual morphology in the Ancient Greek verb (e.g., Reed 2014, Grestenberger 2016).

Specifically, I argue that Ancient Greek *-thē-* realizes *v* in the context of Asp[+pfv], providing evidence that *-thē-* behaves synchronically like a "verbalizer" and corroborating diachronic evidence. I moreover argue that the other aorist or present "stem-forming" suffixes of Ancient (*-e*/*o-*, *-s*(*a*)-, *-n-*, *-nŭ-*, etc.) are, despite their designations as "aorist" and "present" suffixes, realizations of low, event-related *v*+Voice that are licensed in the context of either Asp[pfv] ("aorist stem") or Asp[-pfv] ("present" or "imperfective" stem). This accounts for their behavior as "low" verbalizers on the one hand (including their ability to trigger root allomorphy), and their relation to syntactic aspect on the other hand. What makes the suffix *-thē-* special is that it realizes *only v*, while other verbalizers realize a span v⁀Voice. This means that *-thē-* lacks a Voice head and is predicted to co-occur with *active* T/Agr morphology, which is analyzed as Elsewhere morphology in this approach. I show that this analysis correctly derives the finite active and nonactive present, aorist, and perfect indicative and subjunctive, as well as the aorist passive indicative, subjunctive, and optative in *-thē-*, which are now correctly predicted to surface with active endings. This analysis also derives various non-finite forms of the Ancient Greek verb, such as the participles: the active/nonactive participial suffixes *-nt-* and *-men*(*os*) realize Asp when movement to/agreement with higher verbal functional projections is blocked, along the lines of Embick 2000, Bjorkman 2011, Alexiadou et al. 2015, etc. These allomorphs of Asp are conditioned by Voice([+/-ext.arg.]) like the finite forms, accounting for their parallelism in aspectual semantics and valence.

I thus hope to show that formal theoretical approaches can not only help make sense of longstanding issues in Ancient Greek verbal morphology (such as the connection between Aktionsart and aspectual morphology, or the status of *-thē-*), but that the Ancient Greek verb can in turn be used to elucidate difficult theoretical problems, such as the exact status and use of "spans".

References

Alexiadou, A. 2018. Voice and the architecture of grammar. Paper presented at *WAASAP* 4, Barcelona, June 7–8, 2018.

Alexiadou, A., and E. Anagnostopoulou. 2004. Voice morphology in the causative-inchoative alternation: evidence for a non-unified structural analysis of unaccusatives. In A. Alexiadou, E. Anagnostopoulou, and M. Everaert (eds.), *The Unaccusativity Puzzle*, 114–36. Oxford University Press.

Alexiadou, A., and E. Anagnostopoulou. 2008. Structuring participles. *Proceedings of the 26th West Coast Conference on Formal Linguistics*, 33–41. Somerville, MA: Cascadilla.

Alexiadou, A., E. Anagnostopoulou, and Fl. Schäfer. 2015. *External arguments in transitivity alternations: a layering approach*. Oxford University Press.

Anagnostopoulou, E. 2003. Participles and voice. In *Perfect Explorations*, 1–36. Berlin: de Gruyter.

Bjorkman, B. 2011. *BE-ing Default: The Morphosyntax of Auxiliaries*. Doctoral Dissertation, MIT.

Christopoulos, C., and R. Petrosino. 2018. Greek root-allomorphy without spans. In Wm. G. Bennett, L. Hracs, and D. R. Storoshenko (eds.), *Proceedings of the 35th West Coast Conference on Formal Linguistics*, 151–60. Somerville, MA: Cascadilla.

Embick, David. 2000. Features, syntax, and categories in the Latin perfect. Linguistic Inquiry 31/2, 185–230.

Embick, D. 2004. Unaccusative syntax and verbal alternations. In A. Alexiadou, E. Anagnostopoulou, and M. Everaert (eds.), *The Unaccusativity Puzzle*, 137–58. Oxford University Press.

Grestenberger, L. 2016. More span-conditioned allomorphy: Voice morphology in Classical Greek. In C. Hammerly and B. Prickett (ed.), *Proceedings of NELS 46*, vol. 2, 1–10. Amherst: GLSA.

Grestenberger, L. 2018. Deponency in finite and non-finite contexts. *Language* 94(3), 487–526.

Grestenberger, L. Forthcoming. Two types of passive? Voice morphology and "low passives" in Vedic Sanskrit and Ancient Greek. In K. Grohmann, A. Matsuya, and E. Remberger (eds.), *Proceedings of Passives – A Cross-Linguistic Workshop*, Univ. of Vienna, Sept. 16–17, 2017. Leiden: Brill.

Merchant, J. 2015. How much context is enough? Two cases of span-conditioned stem allomorphy. *Linguistic Inquiry* 46(2), 273–303.

Panagiotidis, P., V. Spyropoulos, and A. Revithiadou. 2017. Little v as a categorizing verbal head: evidence from Greek. In *The verbal domain*, 3–28. Oxford University Press.

Reed, S. 2014. A distributed morphology analysis of tense and aspect in Greek. In The Greek verb: morphology, syntax, and semantics. A. Bartolotta (ed.), *Proceedings of the 8th International Meeting of Greek Linguistics*, Agrigento, Oct. 1-2, 2009, 277–90. Louvain-la-Neuve: Peeters.

Svenonius, Peter. 2012. *Spanning*. Ms., CASTL, University of Tromsø.

Svenonius, Peter. 2016. Words and spans. In D. Siddiqi and H. Harley (eds.), *Morphological metatheory*, 201–22. Amsterdam: Benjamins.

Surface patterns or syntactic structure? Accusative subjects with infinitives in Ancient Greek

Götz Keydana

Georg-August University of Göttingen

In this talk I want to draw attention to a remarkable feature of overt subjects and predicative nouns or adjectives in infinitival phrases: With only a few exemptions they are assigned accusative case.

This is easily explicable in the case of embedded AcIs. However, the accusative is the default case with any kind of infinitive:

- Matrix AcIs: This type evolved from a reanalysis of embedded AcIs. This, however, does not explain how the accusative subject is licensed synchronically.
- Articular infinitives: This type (e.g. τὸ δικάζειν) is in no way related historically to AcIs. Nonetheless, overt subjects and predicatives are regularly assigned accusative case.
- Control infinitives: Predicatives in complement and adjunct infinitives without an overt subject can be marked for accusative independently of their controller. This can be taken as evidence against structure sharing in Greek control infinitives. Rather, their internal structure seems to be that of an AcI, although as with articulate infinitives, any diachronic connection to AcIs can be excluded.

How then is this strange pattern to be accounted for? I give a grammatical sketch of the various types and show that they can best be explained by assuming an inheritance network. Turning to diachrony I then show that this network must have emerged on the basis of pattern extension targeting surface patterns, not, however by structural reanalysis. This observation has an interesting more general corollary: Full-fledged surface patterns must be at least part of the knowledge of language that speakers acquire.

The moraic value of consonantal moras in Ancient Greek: A *Gradient Harmonic Grammar* account

Anthi Revithiadou

Aristotle University of Thessaloniki

Ancient (Attic) Greek (AGr) has been analyzed – within the generative framework at least (Kiparsky 1967, 1973, 2003, Kiparsky & Halle 1977, Sommerstein 1973, Steriade 1982, 1988, Sauzet 1989, Golston 1989, among others) – by means of both metrical structure and contrastive relative pitch. A metrical algorithm determines the position of the accented mora, whereas tonal constraints decide on the distribution of tones to these metrically prominent positions. Both syllabic and moraic trochees have been employed (e.g. Steriade 1988, Sauzet 1989) to account for the *recessive* pattern, that is, the positioning of the H tone either on the antepenultimate syllable, e.g. *ee*^{H}*dɔɔlon* 'phantom.NOM.SG' or, if the final is long, on the antepenultimate mora, e.g. *eedɔɔ*^{H}*loo* 'phantom.GEN.SG'. Steriade (1988), for instance, offers a rule-based analysis of AGr accentuation that employs several foot formation rules which render extrametrical both the word-final consonant and the word-final light syllable, and build a quantity insensitive trochee at the right edge of the word. The H is associated to the metrically prominent syllable of such a foot: *(ee*^{H}*dɔɔ)lo[n]*. A special *mora rule* is independently needed to explain the rightward shift of H before a VV-final syllable, i.e. μ^{H}μ.μμ → μμ^{H}.μμ: *ee(dɔ*^{H}*ɔloo)* → *ee(dɔɔ*^{H}*loo)*. Although descriptively accurate, a major problem with Steriade's analysis, originally pointed out by Sauzet (1989), is the discrepancy between the quantity-insensitive footing, on the one hand, and the quantitative sensitive aspects of the language, on the other, such as the dependence of extrametricality and the mora rule on the moraic value of the final syllable. In this article we adopt Itô & Mester's (2017) tonal, foot-free perspective for the analysis of the recessive pattern in AGr and we empirically extend it to also account for the *σωτῆρα*-type retraction. Key in our analysis is the premise that moras are numerically *gradient* (*Gradient Harmonic Grammar*/ GHG, Smolensky & Goldrick 2016) and that tonal assignment is sensitive to their different degree of strength.

According to Itô & Mester (2017), the recessive pattern emerges from a HL pitch accent, followed by a L- boundary tone that signals the end of the *Phonological Word*. The tonal constellation is aligned with moraic material at the right edge of the word, as shown in (1a–b). The subscript digit at the right side of segments, moras and tones, indicates their *activity level* (AL). In GHG style representations, phonological entities may either be strong enough to be pronounced (1AL) or be weak and hence delete (0AL); additionally,

they may be 'partially present', which translates as having an AL below 1. Gradient entities are either lexically specified with an AL <1 or they are inherently strong but lose part of their strength during computation. We take the latter to be the case with the single final mora in (1b). Although the mora projected from the suffixal /e$_1$/ is anticipated to be strong, like the segment it is projected by, a contextual markedness constraint (a form of NONFINALITY) diminishes the AL of the single final μ to 0.5, rendering it too weak to host a tone.

(1) a. H$_1$ L$_1$ L$_{-1}$ b. H$_1$ L$_1$ L$_{-0}$

μ$_1$ μ$_1$ μ$_1$ μ$_1$ μ$_1$ μ$_{0.5}$

i d r y$_1$ ɔ$_1$ i d r y$_1$ o$_1$ me$_1$[n]

Words ending in a VC[C] sequence present the following challenge for I&M's analysis: They are considered bimoraic because in enclitic constructions they pattern with VV-final words (2a–b) and not with V-final ones (3): in (2c), for instance, the clitic surfaces with final stress, whereas the host lacks a post-lexically assigned H.

(2) a. pajdeúɔɔ tiná 'I educate s.o.'

b. geétɔɔn tinós 's.o.'s neighbor'

c. lipót^{h}riks tinós 's.o.'s bald (person)'

(3) a. ktɛɛ́matá tinos 's.o.'s property'

b. ɛɛ́koosá too 'I heard him'

At the same time, however, VC[C]# syllables behave as monomoraic with respect to a well-known retraction rule in Attic, namely the *Σωτῆρα Law/ΣL*. More specifically, the H retracts to the head mora of a heavy penult (PU) if the ultimate consists of a *single vocalic* mora (Noyer 1997, Kiparsky 2003). For instance, /kɛɛry$_\mu$k-s/ 'orator.NOM.SG' surfaces as *kɛ́^{H}ɛ^{L}ry^{L}k^{L}-s*, instead of **kɛɛ^{H}ry^{L}k^{L}-s*, which is the expected recessively accented output under the assumption that VC[C] is bimoraic. Puzzlingly, the tonal behavior of ΣL-type words in enclitic constructions, e.g., *kɛ^{H}ɛryks tino^{H}s* (**kɛ^{H}ɛ^{L}ry^{H}ks tinos*), evinces that they tonally behave exactly like the VV-final hosts in (2a). In short, enclitic tone treats VC[C]#-syllables as heavy, while TL treats them as light.

Building on the assumption that representations are numerically informed, we propose that moras projected by consonants and, in particular, obstruents, have a lower AL than the ones projected by vocalic peaks: Vμ(1AL) > C$_{[-son]}$μ(0.8AL) (see Kager 1989, Morén 1999 on the markedness of non-vocalic moras). Importantly, consonantal moras are still strong enough (0.8AL) to carry a tone. From the GHG field of view, the ΣL retraction is the result of an inherent asymmetry between contextually heavy (VC) and inherently heavy (VV) syllables. More specifically, we posit that the ΣL requires syllables of total AL 2 to be tonally more complex than those with a total AL < 2. As a result of this

pressure, the H shifts leftwards so that the whole HL tonal cluster, and not just the H, can be hosted by the syllable with the higher AL value, namely $k\varepsilon^{H}\varepsilon^{L}$.

(4) a. $H_1\ L_1L_1$-
$\mu_1\mu_1\ \mu_1\mu_1$
$g e_1 t ɔ_1 n$
$tɔ\!:_\sigma\ \mu_1\mu_1 = 2$ AL

b. $H_1\ \ L_1\ L_1$-
$\mu_1\ \ \mu_1\ \ \mu_1\ \mu_{0.8}$
$li_1 po_1 t^h ri_1 k_1 s$
$t^hrik_\sigma\ \ \mu_1\mu_{0.8} = 1.8$AL

c. $H_1\ L_1\ L_1$-
$\mu_1\mu_1\ \mu_1\mu_{0.8}$
$kε_1 ry_1 k_1 s$
$kε\!:_1$ 2AL; ryk_σ 1.8AL

To sum up, we argue that the curious tonal behavior of seemingly equivalent moraic elements in AGr can be straightforwardly accounted for if we adopt Smolensky & Goldrick's GHG framework of *gradient representations* and a numerically defined concept of strength for phonological entities.

References

Itô, J. & A. Mester. 2017. Ancient Greek accent: Anti-lapse and tonal antepenultimacy. In S. Tanaka et al. (eds.), *New Developments in Phonological Research: Festschrift in Honor of Prof. Haruo Kubozono's 60th Birthday*, 2–18. Tokyo: Kaitakusha.

Kiparsky, P. 2003. Accent, syllable structure, and morphology in Ancient Greek. *Selected Papers from the 15th Symposium on Theoretical and Applied Linguistics*. Thessaloniki.

Smolensky, P. & M. Goldrick. 2016. Gradient symbolic representations in grammar: The case of French liaison. Ms., Rutgers OA 1552.

Sauzet, P. 1989. L'accent du grec ancien et les relations entre structure metrique et representation autosegmentale. *Languages* 95: 81–113.

Steriade, D. 1988. Greek accent: A case for preserving structure. *LI* 19: 271–314.

The flexibility of the Homeric formula: a familiar question under a new framework

Martina Astrid Rodda

University of Oxford

The language of archaic Greek epic is overwhelmingly composed by formulae, linguistic structures which occur repeatedly with a high degree of fixedness. Examples range from adjective-noun pairs (e.g. *thoai nees*, 'swift ships'), which make up the most well-studied group of formulae,[1] to complex phrases involving a verb plus open slots that can accommodate additional information (e.g. *ekhon* [x] *en khersi*, 'holding [x] in one's hands,' which takes a direct object). Formulaic structures are limited in their flexibility, but they exhibit a degree of variation, which can be attributed to chronological evolution, affiliation to a different poetic tradition, stylistic choice, etc.

Traditional approaches to formularity until the 1980s focused on describing language change in archaic Greek epic as a result of the external pressure of dialectal variation in everyday language.[2] Homeric studies over the past few decades, on the other hand, have shown increasing interest in the connection between oral poetics and cognitive linguistics,[3] shifting the paradigm towards the idea that, even in a poetic tradition, linguistic change is primarily the result of the internal evolution of a language in use.

In particular, scholars have highlighted parallels between oral formulaic theory, which defines formulae as expressions regularly used for the same essential idea,[4] and the linguistic framework of Construction Grammar (CxG), where linguistic structures are understood as pairings of form and function.[5] CxG is a productive paradigm for formulaic theory insofar as it emphasises that linguistic phenomena should be understood as a continuum, rather than separate classes showing qualitatively different behaviour; it also highlights the importance of modelling linguistic variation statistically. Little empirical work on formularity, however, has thus far been done in this framework.

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1 At least since Hainsworth 1968.

2 See Hoekstra 1965; 1969; Janko 1982.

3 At least since Bakker 1997. Most recently, see Antović and Cánovas 2016b.

4 Paraphrasing Parry 1971, 13.

5 Goldberg 2006, 5. Parallels with CxG were first discussed by Bozzone 2010; 2014; 2016. Antović and Cánovas 2016a advance similar ideas without acknowledging Bozzone's work. Kiparsky 1976's discussion of formulae as multi-word expressions predates CxG by a couple of decades, but raises many relevant points.

My paper aims to show how a CxG-based quantitative analysis of formulaic flexibility can address the issue of both syntactic and of semantic change. I will discuss the two quantitative studies that form the centrepiece of my PhD work. The first study, following in Hainsworth's footsteps, approaches adjective-noun formulae with a method drawn from studies of English idioms.[6] The syntactic behaviour of individual epic formulae is charted along different axes of variation, and compared to the baseline flexibility of similar structures in non-formulaic texts – a comparison that reveals that formulaic flexibility is much higher, at least for certain formulae, than expected in traditional accounts. I will also advance some hypotheses on what drives the higher flexibility of certain formulae.

The second experiment, the results of which I will briefly outline, analyses how the semantic openness of formulae containing a transitive verb correlates to other traits, such as diachronic evolution and syntactic flexibility. I use Distributional Semantics as a framework to assess semantic variation on a quantitative level, reaching promising results on a small sample of formulae describing actions of holding and thinking (= 'holding in one's mind').

I plan to show how these two different computational approaches, by allowing us to model formulaic usage as a continuum, change our understanding of formularity in practice. The results challenge the idea of a binary distinction between 'formulaic' and 'non-formulaic,' affecting views of oral poetics from both a literary and a linguistic perspective.

References

Antović, M., and C. Pagán Cánovas. 2016a. Construction Grammar and Oral Formulaic Theory In Oral Poetics and Cognitive Science, 79–98. Linguae & Litterae 56. Berlin; Boston (MA): De Gruyter.

Antović, M., and C. Pagán Cánovas. (eds.) 2016b. Oral Poetics and Cognitive Science. *Linguae & Litterae* 56. Berlin; Boston (MA): De Gruyter.

Bakker, E. J. 1997. *Poetry in Speech: Orality and Homeric Discourse. Myth and Poetics*. Ithaca; London: Cornell University press.

Bozzone, C. 2010. New Perspectives on Formularity. *Proceedings of the 21st Annual UCLA Indo-European Conference*, 27–44. Bremen: Hempen.

Bozzone, C. 2014. *Constructions: A New Approach to Formularity, Discourse, and Syntax in Homer*. PhD diss., Los Angeles: UCLA: Indo-European Studies.

Bozzone, C. 2016. The Mind of the Poet: Cognitive and Linguistic Perspectives. In *Omero: Quaestiones Disputatae*, 79–106. Ambrosiana Graecolatina 5. Milano-Roma: Bulzoni.

[6] Wulff 2008.

Goldberg, A. E. 2006. *Constructions at Work: The Nature of Generalization in Language*. Oxford Linguistics. Oxford: Oxford University Press.

Hainsworth, J. B. 1968. *The Flexibility of the Homeric Formula*. Oxford: Clarendon Press.

Hoekstra, A. 1965. *Homeric Modifications of Formulaic Prototypes: Studies in the Development of Greek Epic Diction*. Verhandelingen Der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Letterkunde, Nieuwe Reeks LXXI.1. Amsterdam: N.V. Noord-Hollandsche Uitgevers Maatschappij.

Hoekstra, A. 1969. The Sub-Epic Stage of the Formulaic Tradition: Studies in the Homeric Hymns to Apollo, to Aphrodite and to Demeter. Verhandelingen Der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Letterkunde, Nieuwe Reeks LXXV.2. Amsterdam; London: North-Holland Publishing Company.

Janko, R. 1982. *Homer, Hesiod and the Hymns: Diachronic Development in Epic Diction*. Cambridge: Cambridge University Press.

Kiparsky, P. 1976. Oral Poetry: Some Linguistic and Typological Considerations. In *Oral Literature and the Formula*, 73–125. Ann Arbor: Center for the Coördination of Ancient and Modern Studies, University of Michigan.

Parry, M. 1971. *The Making of Homeric Verse. The Collected Papers of Milman Parry*. Oxford: Clarendon Press.

Wulff, S. 2008. *Rethinking Idiomaticity: A Usage-Based Approach. Corpus and Discourse. Research in Corpus and Discourse*. London; New York: Continuum International Publishing.

On complementizers in Ancient Greek

Anna Roussou

University of Patras

1. The use of pronouns as complementizers is quite pervasive in Indo-European languages. English *that* is related to the demonstrative *that* (*that book*), Romance *que/che* is related to the interrogative pronoun 'what' (*che fai?* 'what are you doing?'), Modern Greek *oti* is related to a relative pronoun (*oti thelis* 'whatever you want'), to mention just a few examples. This pattern is usually considered an instance of grammaticalization, which involves categorial change from pronoun to complementizer. In the present paper I consider pronominal elements as complementizers in Ancient Greek (AG), focusing on their morphosyntactic properties. It is shown that these elements are categorially pronominals, and as such introduce complement clauses. In structural terms, they occupy argument positions, just like nominals. It is next shown that some of these elements have remained in Modern Greek (MG) with the same function as complementizers. The change involves their paradigmatic relations with other pronominals, given the restructuring of the pronominal system in the history of Greek. In this respect, the study of AG complementizers offers us a diachronic window to current theorizing regarding the affinity between complementation and relativization (Arsenijevic 2009, Kayne 2010, Manzini 2010, a.o.) and reconsiders the properties of complementizers as such (see also Roussou 2010).

2. AG exhibited three main types of complementation, as in (1) and (2) (from Cristofaro 2008; see also Cristofaro 1996, 2003 and references therein; also Saayman 1990):

Finite (declarative) complements

(1a) *eipon* ***hoti*** *nēes ekeinai epipleousin*
said-3pl that ships those sail-pres.ind-3p
"They said that there were ships sailing against them" (Thucydides, 1.51.2.4)

(1b) *oistha* ***hōs*** *presbuteroisin Erinues aien hepontai*
know-1s that elders-dat Erinyes-nom.pl always follow-pres.ind-3pl
"You know that the Erinyes always follow the elders" (Homer, Iliad, 15.204)

Non-finite complements

(2a) *phasi de xummakhian* […] *oudenos pō* ***dexasthai***
say-3pl prt alliance-acc nobody-gen ever accept-aor.inf
"They say they never accepted the alliance of anybody" (Thucydides, 1.37.2)

(2b) *arkhomai apo tēs iatrikēs* ***leghōn***

start-fut.1s from the-gen medicine-gen speak-pres.pple.masc.nom.sing

"I will start talking from medicine" (Plato, Symposium, 186b)

Complementation in AG can be finite, in which case the complement clause is introduced by a designated subordinator, such as *hoti* or *hōs* (a complementizer), or non-finite, in which case it could be an infinitive, as in (2a), or a participle, as in (2b). The form of the complement is by and large determined by selectional properties of the matrix predicate along with further features which express the speaker's certainty towards the content of the proposition, etc. The elements *hoti* and *hōs* further differ in their distribution in terms of 'high' vs 'low' communicative value respectively, as argued by Cristofaro (1997).

Leaving aside the data in (2) for the time being, and focusing on (1), we observe that the elements *hoti* and *hōs* belong to the relative pronominal paradigm. In particular, *hoti* is the relative adverb of the relative pronoun *hos*, as *houtōs* of *houtos*, while complementizer *hotĭ* is only orthographically distinguished from the relative *ho ti* (two words, or *ho,ti*), which is the neuter form of *hostis* (Lidell & Scott 1997 [1889]). Morphologically, *hoti* is complex, as it consists of the relative *ho* and the indefinite *tis*; similarly *hōs* is morphologically derived by vowel lengthening from the relevant pronoun (see also *kalos* adj. vs *kalōs* adverb). The relative stem *ho* is used for other formations as well, as is the case with the adverbial *hote* (ho+te) or *hotan* (ho+te+an); the same formation rule holds for the interrogative *po*, in *pote*, or the demonstrative *to* in *tote* (Lidell & Scott, op. cit.). The element *hote* is used to introduce a temporal adverbial clause, as in (3) (from Tzartzanos 1949: §147).

(3) ***hote*** *hautē ē makhē egeneto*

when this the battle happened-3s

"When this battle happened, …"

The above examples exhibit a morphological formation of subordinators (complementizers and adverbials). It is also possible to find syntactic formations where the pronoun is selected by a Preposition forming a Prepositional Phrase, as in (4):

(4) *apo+hou = ap'hou* (ἀφ'οὗ), *apo+hotou* (ἀφ' ὅτου), *dia+oti* (διότι), etc.

The examples so far show that pronouns are the basic element for the formation of subordinators, including complementizers.

3. Given the above, it can be argued that the use of pronouns as complementizers is already at stake in AG. At the same time, their productive use with other morphemes and the inflectional properties they may exhibit argues in favor of their nominal status (as pronouns), while their characterization as complementizers (or subordinators in general) is essentially functional. The second important point of the above data is that complementation can be viewed as an instance of relativization (see also Bate (2019) on complement clauses as correlatives in Indo-European). As argued in the literature the role

of the complementizer is to turn a proposition (a clause) to an argument (a nominal of some form). In AG, as in MG, this is achieved through the use of a pronoun. At the same time, AG, but not MG, allows for non-finite complements, as in (2). One important point to bear in mind is that infinitives are treated as nominal forms of the verb (Tzarzanos 1949, Goodwin 1892), while participles are evidently nominal as their inflectional properties manifest. So AG exploits two mechanisms of embedding a clause, either via a pronoun or via nominal inflection on the verb. This latter property was lost in the history of Greek (see for example Joseph 1983), leaving finite complementation as the only option in MG.

Another significant change is that some of the elements that function as complementizers in MG draw on different paradigms; for example while *oti* has remained as a free relative pronoun, the other declarative complementizers, namely *pu* and *pos* form paradigmatic relations with interrogatives. A final issue concerns the role of grammaticalization; if categorial reanalysis is not at stake, then the question is whether there is grammaticalization or not. The different functions that a given pronoun may assume are considered as instances of 'polysemy' defined at a syntactic and not a lexical level: a single element with a core meaning whose further readings and functions are determined syntactically, as also argued by Katis & Nikiforidou for MG *pu* in terms of constructional grammar.

In short, using current research methodology for the analysis of AG not only sheds some light in its syntactic properties, but also opens a window for a better understanding of syntactic change.

The Place of Attic-Ionic Greek in Word-Level Prosodic Typology

Ryan Sandell

Ludwig-Maximilians-Universität München

Many accounts of "accentuation" in Ancient Greek generally and of the Attic-Ionic dialect in particular depart from the premise that the language possessed a "pitch-accent" system; representative statements to this effect can be found in, e.g., Probert 2003: 3 and Gunkel 2014: 7. Hyman (2009) has, however, argued that that no coherent category of "pitch-accent" languages with some well-defined set of prosodic properties exists (in contrast to "stress-accent" languages, as per Beckman 1986, or "tone" languages). Instead, languages often labeled as having "pitch accent", such as Tokyo Japanese (with which the Ancient Greek system has often been compared; cf. Devine and Stephens 1994, Steriade 2014, Itô and Mester 2017) or Western Basque, are languages that link some pitch target to tone-bearing units (TBUs; e.g., moras) and which have one or more properties that are definitional of stress:

OBLIGATORINESS (must every prosodic word have a most prominent foot/syllable/mora?);

CULMINATIVITY (must every prosodic word have at most one prominent foot/syllable/mora?);

PRIVATIVITY (a given foot/syllable/mora either has prominence or lacks it – i.e., TBUs are either /H/ or /Ø/ as opposed to /H/ and /L/);

METRICALITY (prominence is positionally restricted, typically by reference to foot structure).

From Hyman's perspective, labeling a language as a "pitch-accent" language is inadequate; rather, its specific prosodic characteristics along at least the four dimensions listed above require substantive specification.

The top-level objective of this paper is then to attempt to establish where the Attic-Ionic word-level prosodic system stands typologically in such a property-driven perspective. Specifically, what properties does Attic-Ionic possess with respect to 1) obligatoriness and CULMINATIVITY, 2) PRIVATIVITY, and 3) METRICALITY?

Concerning OBLIGATORINESS and CULMINATIVITY, if the presence and position of high tones (H) is tracked, then, as the example 1 shows, lexical words (excluding certain classes of clitics, cf. Goldstein 2015: 6–9; Ch. 3) appear to have both properties. The subordinate constituents of prosodic word can further potentially be analyzed having privative tone (/H/ versus /Ø/); however, the surface distinction between high tone and falling tone on long vowels and diphthongs (example 2b) may complicate claims of PRIVATIVITY.

(1) OBLIGATORINESS and CULMINATIVITY:

At least one H per word; no more than one H per word.

a. Grammatical:

ποδός ‘foot.gen.sg’, πολυπῖδαξ ‘having many fountains.nom.sg’, λύετε ‘you (pl.) untie’

b. Ungrammatical (OBLIGATORINESS violated):

*ποδος, *πολυπιδαξ, *λυετε

c. Ungrammatical (CULMINATIVITY violated):

*πόδός, *πολυπῖδάξ, *λύέτε

(2) PRIVATIVITY:

At the level of the mora, tonal distinctions appear reducible to H vs. Ø; at the level of the syllable, surface distinction between HL and H.

a. Mora-Level

[pòós] ‘foot’, [bóòs] ‘cow’ [pòlùpìídàks], [lúètè] – 1 H mora per word.

b. Syllable-Level

[pó꞉s], [bô꞉s] ‘cow’, [pòlùpî꞉daks], [lúètè] – syllables with long vowels either H or HL.

If the position of Attic-Ionic high tones is furthermore restricted by metrical structure, then a close typological analogue for its word-level prosody may be Turkish, in which the cue to stress is essentially pitch (raised F0; Levi 2005). Without obligatory reference to metrical structure, then the Attic-Ionic system might stand somewhere closer to languages such as Kinga (Schadeberg 1973) or Nubi (Gussenhoven 2006), which both exhibit obligatory and culminative H on each prosodic word.

Whether, and if so, exactly how, determining the position of high tones in Attic-Ionic requires reference to metrical structure remains a particular point of contention. The specific question is: what phonological mech- anisms best capture both the placement of lexically specified high tones (e.g., /sɔ꞉tɛ́꞉r/ ‘savior’) as well as high tones assigned as a “default” (the “recessive accent”; cf. generally Probert 2006)? With respect to the calculation of the “recessive accent”, three major approaches may be distinguished: 1) metrical, dependent upon foot structure (Steriade 1988, Sauzet 1989, Golston 1990; largely adopted in Gunkel 2010, Probert 2010); 2) metrical, without feet (Steriade 2014, operating with the constraint family from Gordon 2002); 3) fundamentally tonal, no metricality (Itô and Mester 2017). The fundamental distinction between the latter two approaches consists in the interpretation of what sorts of lapse are penalized: Steriade (2014) assumes penalties to stress lapse with respect to the right edge, while Itô and Mester (2017) argue that “substantive tonal factors” conditioning the placement of L%,

L, and H tones with respect to one another leads to the mere appearance of a right-edge restriction on the placement of the high tone.

The status of metrical structure in the word-level prosody of Attic-Ionic is thus, in the light of the newer anal- yses forwarded by Steriade and Itô & Mester, in need of reevaluation from typological, empirical, and theoretical perspectives. Specifically, the following questions are in need of deeper investigation:

TYPOLOGICAL: Is a link between L and a foot head (as opposed to H and a foot head) unknown and impermissible? What classes of segments are licit hosts for tone?

EMPIRICAL: How is the "σωτῆρα-Rule" (not thoroughly treated in Itô and Mester 2017, denied as epiphenomenal in Steriade 2014) best handled? How should the distinction between lexical /H/ and "recessive" H be implemented?

THEORETICAL: Should Lapse constraints be permitted to refer to tonal patterns?

Discussion of these problems will help to clarify the status of privitivity and metricality and Attic-Ionic, and thus determine more precisely where the language stands in terms of its word-level prosody, which will further facilitate comparison of its prosodic system typologically, dialectologically, and diachronically.

References

Beckman, Mary. 1986. *Stress and Non-Stress Accent*. Dordrecht: Foris.

Devine, A. M., and L. D. Stephens. 1994. *The Prosody of Greek Speech*. Oxford: Oxford University Press.

Goldstein, D. 2015. *Classical Greek Syntax: Wackernagel's Law in Herodotus*. Leiden: Brill.

Golston, C. 1990. Floating H (and L*) Tones in Ancient Greek. In J. Meyers and P.E. Pérez (eds.), *Arizona Phonology Conference, iii,* 66–82. Tucson, Arizona: University of Arizona Linguistics Department.

Gordon, M. 2002. A Factorial Typology of Quantity-Insensitive Stress. *Natural Language and Linguistic Theory* 20, 491–552.

Gunkel, D. 2010. *Studies in Greek and Vedic Prosody, Morphology, and Meter*. Ph.D. diss., University of California, Los Angeles.

Gunkel, D. 2014. (Ancient Greek) Accentuation. In G. K. Giannakis (ed.), *Encyclopedia of Ancient Greek Language and Linguistics*, vol. 1: A–F, 7–12. Leiden: Brill.

Gussenhoven, C. 2006. Between Stress and Tone in Nubi Word Prosody. *Phonology* 23, 193–223.

Hyman, L. M. 2009. How (Not) to Do Phonological Typology: The Case of Pitch-Accent. *Language Sciences* 31, 213–38.

Itô, J., and A. Mester. 2017. Ancient Greek Pitch Accent: Anti-Lapse and Tonal Antepenultimacy. In T. Shinichi (ed.), *New Developments in Phonological Research: Festschrift in Honor of Prof. Harua Kubozono's 60th Birthday*, 2–18. Tokyo: Kaitakusha.

Levi, S. V. 2005. Acoustic Correlates of Lexical Accent in Turkish. *Journal of the International Phonetic Association* 35, 73–97.

Probert, P. 2003. *A New Short Guide to the Accentuation of Ancient Greek*. London: Bristol Classical Press.

Probert, P. 2006. *Ancient Greek Accentuation. Synchronic Patterns, Frequency Effects, and Prehistory*. Oxford: Oxford University Press.

Probert, P. 2010. Ancient Greek Accentuation in Generative Phonology and Optimality Theory. *Language and Linguistics Compass* 4, 1–26.

Sauzet, P. 1989. L'Accent du grec ancien et les relations entre structure métrique et représentation autosegmentale. *Langages* 24, 81–113.

Schadeberg, T. C. 1973. Kinga: A Restricted Tone Language. *Studies in African Linguistics* 4, 23–48.

Steriade, D. 1988. Greek Accent: A Case for Preserving Structure. *Linguistic Inquiry* 19, 271–314.

Steriade, D. 2014. A Synchronic Analysis of Ancient Greek Accent. Presentation. Harvard GSAS Colloquium, 22 September 2014.

Absolute participial constructions in Ancient Greek

Vassilios Spyropoulos

National and Kapodistrian University of Athens

Absolute participial constructions are non-finite constructions that stand in a loose relationship with the clause, acting like an adverbial modifier or an adjunct clause. Typically, they involve a non-finite verbal form and an overt DP-subject, which is different from any of the matrix clause terms. There is a considerable cross-linguistic variation with respect to (a) the status of the non-finite verb form (participle, infinitive, gerund/gerundival, converb) and (b) the potential restrictions posed by the verb class (transitive/unergative vs. unaccusative) (Stump 1985, Belletti 1990, 1992, López 1994, 2001, Egerland 1996, Alcázar 2007, Panagiotidis 2010, Bruno 2011; see König & van der Auwera 1990 for a typological survey). Normally, the case of the DP-subject is the same as the one attested in finite clauses (e.g. nominative in Romance, English, Greek, ergative vs. absolutive in Basque). However, in most of the Indo-European languages, the absolute participial constructions are signaled by a special case, in which both the participle and its DP-subject appear and which deviates from the usual case that marks the subject. Thus, Ancient Greek and Classical Sanskrit exhibit the genitive absolute, Latin the ablative absolute, Gothic and Balto-Slavic the dative absolute, Early Sanskrit the locative absolute, etc. (Keydana 1997, Bauer 2000, Ruppel 2013 among others):

(1) Ancient Greek

Kyros	anebɛ:	epi	ta	orɛ:	oudenos
Cyrus-NOM	went.up-PST.3SG	on	the	mountains-ACC	nobody-M.SG.GEN

kɔ:lyontos

block-PRTC.M.SG.GEN

'Cyrus went up the mountains, because nobody blocked him' (*X.An.* 1.2.22)

(2) Latin

id …	paucis	dependentibus	expugnare	non	potuit
this	few-PL.ABL	defend-PRTC.PL.ABL	conquer-INF	NEG	be.able-PST.3SG

'He was not able to conquer it, although there were few men to defend it' (*Caes.Gal.* 2.12.2)

In this paper, I focus on the Ancient Greek (AG) genitive absolute construction and I argue that such specially case-marked absolute constructions involve a nominalized small

clause constituent, which consists of the participle and its DP-subject and which is the complement of a prepositional p_{CASE} head that assigns this special genitive case.

The AG genitive absolute construction is widely attested as the equivalent to a finite adjunct clause, so that it undertakes all the relevant clausal functions (temporal, conditional, manner, etc.). Such participial constructions are traditionally referred to as "circumstantial", because they express the circumstances under which the event described by the matrix clause takes place. The participial part of the construction has full verbal properties, as the participle may appear in all possible verbal constructions (transitive, unergative, unaccusative) and take adverbial modification and complementation (case marked objects, non-finite and finite complement clauses) like finite verbs:

(3) ap^{h}iketo deuro to ploion gnontɔ:n
arrive-PST.3SG here the ship-NOM decide-PRTC.AOR.M.PL.GEN
tɔ:n kephallɛ:nɔ:n antiprattontos to:to: … kataplein
the Cephalonian-PL.GEN object-PRTC.M.SG.GEN PR3-M.SG.GEN come.ashore-INF
'The ship arrived here, when the Cephalonians decided to come ashore, even though he objected' (*Dem.* 32.14)

(4) epitrepsantos Eurystheɔ:s… Mykɛ:nas … Atrei
commit-PRTC.AOR.M.SG.GEN Eurystheus-GEN Mycenae-PL.ACC Atreus-DAT
'when Eurystheus had committed Mycenae … to Atreus" (*Th.* 1.9)

In addition, the participial form exhibits verbal morphology for voice (passive suffix -*t^{h}(ɛ:)*), aspect (perfective suffix -*s*, perfect suffix -*k* and reduplication), and even tense (theme vowels -*o* and -*a* for non past and past respectively). At the same time it involves nominalizing/adjectivizing morphology (the suffixes -*nt*, -*wos/wot*, -*men*; these suffixes, which are usually referred to as participial suffixes, are in fact nominal/adjectival suffixes that independently appear in nominal and adjectival formations; see Debrunner 1917, Chantraine 1961) and nominally inflects for gender, number and, crucially, case (e.g. M.NOM.SG suffix -*(o)s*), fully agreeing with its DP-subject in the same way as adjectives do in their predicative function:

(5) The participles of the verb *lyɔ:* 'I loosen, set free'

exemplified by the MSC.NOM.SG form

	ACTIVE	MIDDLE	PASSIVE
PRESENT	lyɔ:n (< ly-o-nt-Ø)	ly-o-men-os	
FUTURE	lysɔ:n (< ly-s-o-nt-Ø)	ly-s-o-men-os	ly-t^{h}ɛ:-s-o-men-os
AORIST (PAST)	lysa:s (< ly-s-a-nt-s)	ly-s-a-men-os	lyt^{h}e:s (< ly-t^{h}ɛ:-nt-s)
PERFECT	lelykɔ:s (< le-ly-k-wos-Ø)	le-ly-men-os	

I propose that the AG genitive absolute construction involves a small clause constituent (see Lopez 1994, 2001 for Romance absolutes), which contains a mixed verbal-adjectival projection (see Panagiotidis 2010 for such mixed projections), the participle, predicated of a DP-subject, which may be one of its arguments. More specifically, the participial structure involves a verbal extended projection with the relevant verbal functional heads, *v* – Voice, Aspect and even Tense, as it is evident from the morphological segmentation of the participial paradigm in (5). However, it lacks the relevant ϕ-features on T, so that no subject-agreement can be established with a DP-subject and no nominative case can be assigned. This verbal structure is embedded in a nominal/adjectival categorizing head *n/a*, which results in its nominalization/adjectivization, as evident from its nominal/adjectival suffixes and its gender-number-case nominal inflection. This mixed projection constitutes the predicative core of a small clause constituent FP, which consists of the participial formation and its DP-subject. Evidence for the small clause constituency of such participial constructions comes from the fact that they may also occur as clausal complements of verbs in ECM and subject-raising configurations. Subsequently, this small clause constituent is nominalized by means of a D head (see Keydana 1997 for a proposal that AG absolute constructions are nominalized constructions). There is distributional evidence that in AG the [DP-subject + participle] constituent may have the distribution of a DP (subject, object, prepositional complement, adnominal and bare adverbial; the *ab urbe condita* constructions, see Goodwin 1889, Kühner & Gerth 1898-1904, Brugmann & Thumb 1913, Smyth 1918, Jones 1939, Schwyzer & Debrunner 1960, Ruppel 2013). Finally, this nominalized small-clause is embedded in a prepositional functional head projection which is responsible for its genitive case and for its semantic properties as "circumstantial":

(5) $[_{pCASEP}\ p_{CASE}\ [_{DP}\ D\ [_{FP}\ DP\text{-}subject_i\ F\ [_{n/aP}\ n/a\ [_{TP}\ T\ [_{AspP}\ Asp\ [_{VoiceP}\ Voice$
$[_{vP}\ (t_i)\ v\text{-}V\ (t_i)\ ]]]]]]$

I assume that the p_{CASE} functional head is part of a decomposed prepositional phrase structure (see Svenonius 2003, 2007, 2010, Koopman 2010, etc. for the decomposition approach of PP-structure) and that it is the head that assigns case to the DP-complement of the PP (see Spyropoulos 2017, 2018). In AG the case of the DP in a PP is variable and it depends on the function of the PP and not on the lexical item of the preposition (Horrocks 1981, Luraghi 2003, Bortone 2010); this correlation between function and case cuts accross the various prepositions and also holds in adverbial bare DPs with either a locative or an abstract meaning. The postulation of the case assigning p_{CASE} functional head captures this cross-categorial association between function and case, by assuming that adverbial bare DPs are in fact prepositional structure fragments, i.e. functional skeletons including the p_{CASE} head, not lexicalized by a root. This p_{CASE} head may come in different flavors (parallel to the 'flavored' *v* heads suggested by Folli & Harley 2005, 2007), i.e. p_{GEN} p_{DAT} and p_{ACC}, so that the exact flavor is selected/determined by the functional specification of the structure relevant to its meaning and function. Thus, AG

genitive absolute constructions are participial constructions headed by a prepositional structure fragment which includes p_{GEN}, and the choice of the genitive flavour for the p_{CASE} is associated with the circumstantial function of the absolute construction, since its main functions of (temporal) containment and source are expressed in AG by means of the genitive (partitive and ablative genitive) (Jannaris 1897, Kühner & Gerth 1898-1904, Schwyzer & Debrunner 1950).

References

Horrocks, G. 1981. *Space and Time in Homer: Prepositional and Adverbial Particles in the Greek Epic*. New York: Arno Press.

Keydana, G. 1997. *Absolute Konstruktionen in Altindogermanischen Sprachen*. Göttingen.

López, L. 2001. On the non-complementarity of Case theory and theta-theory. *Linguistic Inquiry* 32: 694-716.

Panagiotidis, Ph. 2010. Nonargumental mixed projections. *Syntax* 13, 165-82.

Ruppel, A. 2013. *Absolute Constructions in Early Indo-European*. Oxford: OUP.

Svenonius, P. 2010. Spatial P in English. In G. Cinque & L. Rizzi (eds.), *Mapping Spatial PPs: The Cartography of Syntactic Structures*, Volume 6, 127-60. Oxford: OUP.

Future participles expressing purpose in control relationships

Roxanne Taylor

University of Manchester

This paper examines the syntactic relationship between a participial phrase indicating purpose (marked with future morphology) and the main clause to which it is subordinate, particularly the relationship between grammatical functions in the main clause and the unexpressed most subject- like participant of the participle. In (1) the main-clause grammatical relation is subject, in (2) object. The framework used throughout is that of Lexical Functional Grammar (LFG). Agreement, as described in LFG, is found to be inadequate as an explication of shared case. Instead an analysis of so-called functional control is presented to explicate shared case, with agreement playing a small secondary part. This analysis captures the dual verbal-adjectival nature of the Greek participle and allows its eventual categorisation as a special sort of VP.

This work was carried out as part of a larger project examining the syntax and semantics of expressions of purpose in Ancient Greek.

(1) Γλαῦκος δὲ ἐπορεύετο ἐς Δελφοὺς
Glaukos-NOM.MASC.SG PART PST-go-3SG PREP Delphi
χρησόμενος τῷ χρηστηρίῳ.
get~a~response-FUT-PTCP-NOM.MASC.SG ART oracle
'*Glaukos journeyed to Delphi to get a response from the oracle*' (Herodotos, *Histories*, 6.86C.1)

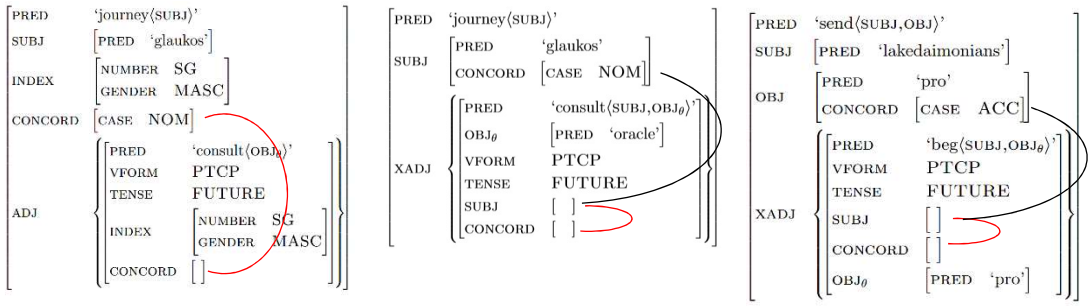
(2) ἡμέας δὲ ἔπεμψαν Λακεδαιμόνιοι
1.PL-ACC PART PST-send-3PL Lakedaimonian-NOM.MASC.PL
δεησομένους ὑμέων
beg-FUT-PTCP-ACC.MASC.PL 2.PL-GEN
'The Lakedaimonians sent us to beg you.' (Herodotos, Histories,8.142)

[a] illustrates an agreement- style analysis of (1) and within LFG formalism, using CONCORD for agreement (indicated in red). Concord in LFG is syntactic agreement, subsumes {number, gender, case} and describes agreement between heads and modifiers. Note that the participle is treated as an adjective, with no subject of its own.

However, analysis [a] suffers from the fact that participles expressing purpose modify clauses, not single participants. Haug (2017) also shows decisively that converbal participles in Greek have subjects, and this is assumed to hold also for those with future morphology.

An analysis of control is therefore proposed instead. LFG recognises two types of control, functional and anaphoric, where functional control involves total identity of controller and controllee; anaphoric control requires the introduction of an unexpressed anaphor, "pro". Given the evidence of shared case, functional control, involving total identity between main-clause subject (1) or object (2) and participial subject is selected as the most appropriate type; anaphoric control is highly unlikely since anaphors and their antecedents are not held to share case.

[a] [b] [c]



[b] and [c] demonstrate functional control analyses of (1) and (2), with the main-clause subject and object controlling the unexpressed participial subject respectively.

As an extension to previous analyses of Indo-European converbal participles (Lowe, 2015), [b] and [c] explicitly feature concord agreement as well as control. Nominative case is assigned by the finite verb in the main clause. Functional identity (in black) holds between main-clause subject or object and subordinate subject, which means that the unexpressed participial subject therefore also "has" nominative case. Originating from this unexpressed subject, case is then shared with the concord features of the participle itself by head-modifier-type concord agreement from subject to the concord features of the participle (in red).

This analysis of functional control means that participles expressing purpose are verb phrases, not adjectival phrases; they have subjects and partake in control relationships. The fact that the subject of a participle is never expressed is unproblematic; LFG differentiates between constituent structure, where participles never have subjects, and functional structure, allowing participles to be a unique kind of VP which has a subject in only one part of the syntax. The nuance of concord agreement between the unexpressed subject and the participle itself captures the adjective- like nature of participles, which show, number, gender, and case.

Although only participles expressing purpose make up the data set used, it is hoped this analysis could be used for all so-called predicative, or converbal, participles in Greek.

References

Andrews, A. D. 1971. Case Agreement of Predicate Modifiers in Ancient Greek. *Linguistic Inquiry* 2(2), 127-151.

Bresnan, J. 1982. Control and Complementation. *Linguistic Inquiry* 13(3), 343-434.

Haug, D. 2017. Backward Control in Ancient Greek and Latin Participial Adjuncts. *Natural Language & Linguistic Theory* 35(1), 99-159.

Lowe, J. J. 2015. *Participles in Rigvedic Sanskrit: The Syntax and Semantics of Adjectival Verb Forms.* Oxford; New York: Oxford University Press.