

Introduction to Phase Edge Investigations*

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This special issue collects novel research in the form of theoretically motivated, empirical studies of issues pertaining to the left edge of phases, such as the traditional vP and CP (in the sense of Chomsky 2000 *et seq.*). It also explores possible alternatives, be they alternatives to phases *per se* or alternative conceptions of what makes a phase a phase, of what phases should look like or contribute to the derivation, or of the relevance of edges, the traditional left periphery (or even peripheries, perhaps assigned to each phase-edge).

Hee-Don Ahn and Sungeun Cho discuss “Reconstruction Asymmetries in Ellipsis: Implications for Scrambling.” On the basis of novel data presenting scope facts from Korean, the authors show an interpretive difference between reconstruction at one phase edge (CP) and the other (vP), thereby discussing both traditional phase edges and their effects on the derivation. At first, scoping asymmetries in Korean fragments seem to be problematic in Merchant’s (2004) ellipsis analysis of fragments. However, the authors conclude that understanding the nature of the typology of movement in syntax along with reinterpretation of interface conditions provides an elegant account of the apparent puzzles, which accordingly supports a movement-and-deletion analysis of Korean fragments. They propose that two distinct types of movement have different reconstruction consequences: Movement taking place for discourse purposes doesn’t allow reconstruction for scope, unlike movement for feature checking that exhibits typical reconstruction effects. They further observe that scrambling in Korean is a non-unitary operation, and claim that the seemingly scrambling phenomena can be reanalyzed either as discourse-driven focus-movement or as a semantically vacuous adjunction operation, and only the latter operation exhibits obligatory reconstruction.

* The present *Linguistic Analysis* special issue on “Phase Edge Investigations” arose from presentations at the Cyprus Syntaxfest— the unofficial umbrella term for two conferences held back to back in Nicosia, Cyprus, in May 2006: *Edges in Syntax* (organized by Phoivos Panagiotidis, held at Cyprus College), and *InterPhases* (organized by Kleantes Grohmann, held in the Old Town, at Casteliotissa Hall).

“A minimalist solution to an old ECP puzzle: Lethal Ambiguity at the left periphery” is Cedric Boeckx’s short contribution that applies minimalist rethinking to well-known data from a well-known GB phenomenon—the Empty Category Principle (ECP). The ECP has so far resisted an “updated,” minimalist treatment, or even serious (re)consideration. This is largely due to the rise of the copy theory of movement (Chomsky 1993). Traces seen as copies, which could in principle even be pronounced, do not easily allow for the treatment of empty categories in syntax. Some way other than licensing (in terms of government) must be found to account for the well-known asymmetries presented in this paper. Boeckx’s goal is to provide an account of the standard data consistent with minimalist assumptions. The analysis he develops makes use of the idea that *wh*-adjuncts such as *why* are base-generated in SpecCP. That is, elements such as *why* enter into *wh*-feature checking by means of External Merge, not Internal Merge (see Chomsky 2004).

Largely on the basis of known data, Kirsten Gengel provides a phase-based account of all kinds of ellipsis phenomena in “Phases and Ellipsis.” She aims to show that various instances of ellipsis, such as Verb Phrase Ellipsis (henceforth VPE), Pseudogapping, Sluicing, Gapping, and possibly NP Ellipsis, can be given a uniform account using a phase-based theory of deletion. The derivation of the elliptical structure is considered to be a combination of (optional) movement of focused remnants out of parts of the syntactic structure that are specified for deletion. The movement itself is based on the focal properties present in ellipsis structures and is presumed to be focus movement. The deletion operation follows the implementation suggested in Merchant (2001), where the phrase undergoing deletion at the PF level is marked with an E-feature, which triggers the phonological reduction of its sister node.

In “Negation, Quantifiers, and A-movement in Nominalization in Japanese,” Masaaki Kamiya addresses nominalizations, which involve both verbal/clausal and nominal structures. As such, the relevance to phase edges concerns the relation between the two, and also which clausal projections are involved in edge phenomena. TP is shown to be relevant for an analysis of the (novel, but perhaps somewhat controversial) data provided. The main purpose of this paper is to investigate the existence of movements in Japanese nominalizations. Kamiya shows that there are two types of movements in Japanese nominalizations: A-movement, motivated by an EPP feature and A-

bar movement, in the form of quantifier raising (QR). This fact, if correct, implies higher projections in Japanese nominalizations. The author proposes that nominalizations are dominated by a projection that triggers an optional operation such as QR (Chomsky 2008, Miyagawa 2006) and a projection that requires an obligatory movement motivated by an EPP feature.

Antje Lahne contributes “A Multiple Specifier Approach to Left Peripheral Architecture,” in which she argues against a cartographic approach to the highest phase edge, the left periphery (“split CP”). Lahne does so by “replacing” ordered projections through ordered features in a multiple specifier approach. In essence, she shows that implementing a cartographic approach to clausal architecture as a derivational minimalist analysis proves to be problematic and she therefore proposes an alternative analysis of the C-domain as a single CP with multiple specifiers; ordered Merge operations result from hierarchy-driven handling of the feature hierarchy of C. Some apparent counterevidence comes from languages in which left-peripheral heads seem to be overtly marked. The author presents arguments in favour of the view that these markers are not syntactic heads but affixes on a displaced constituent. Furthermore, she argues that clause-initial complementizers followed by C-material are best analyzed as a morpho-phonological phenomenon at the CP edge. They are dealt with within the framework of Distributed Morphology (Halle & Marantz 1993 and much subsequent work), whereas cross-linguistic variation in the phonological realization of C-markers is accounted for by means of optimization.

In “Verum Focus and Phases,” Horst Lohnstein and Hildegard Stommel address a very interesting aspect of the left periphery that doesn’t receive much attention (and hasn’t since the late 1980s/early 1990s, in the GB-framework), so-called *verum focus*. The data are new in many parts and constitute a valuable empirical data set for verum focus issues in German, along with an interesting analysis. Phases — as formal complexes of syntactic structure — bear properties which need to be explicated in semantic/ functional terms. One such phenomenon is verum focus which shows up if the complementizer or the finite verb in left peripheral position of the “CP phase” bears a pitch accent. The effect of this accentuation pattern forces an interpretation which seems to emphasize the truth of the expressed proposition. In questions, it induces the requirement for a true answer. These observations led to the assumption of a grammatical

feature [VERUM] being responsible for the focalization of truth. The authors argue that [VERUM] is a relevant grammatical phase feature—clearly observable in the case of *verum focus*—but it seems to be present even if no *verum focalization* applies. The reason is that a compositional theory of left peripheral force marking requires its presence independent from *verum focus* effects. In the literature, *verum focus* is assumed to be strongly different from other kinds of focalization. In this paper the authors argue that the interpretation of *verum focus* is strongly connected to epistemic dispositions and the determination of sentence mood, which is determined in the CP phase too. *Verum focus*—as it appears—provokes a shift of the precursors of sentence mood determination from the speaker’s epistemic system to the context of discourse.

E. Phoivos Panagiotidis and Kleanthes K. Grohmann contribute “Mixed Projections: Categorical Switches and Prolific Domains.” As an alternative to phases and their interaction with the derivation, the authors combine a different proposal for structuring the derivation including, from one author (Prolific Domains), an innovative analysis of mixed projections, and from the other author (Switches). Their paper is a study in the size and the nature of the categorially uniform constituents making up mixed projections, taking the term “mixed projections” to be equivalent to “mixed categories.” Broadly speaking, mixed projections *combine* properties typically associated with two distinct grammatical categories. This contrasts with simple projections which display categorial uniformity throughout, i.e., being consistently adjectival, nominal or verbal/clausal. Put otherwise, mixed projections combine characteristics of (at least) two lexical projections (nominal, verbal and adjectival). Instead of attempting a general overview of the many questions and puzzles surrounding the existence and function of mixed projections, the authors concern themselves here only with the following question: Within a mixed projection, where do properties of one category end, and where do properties of another category begin?

M. Carmen Parafita Couto contributes “Rightwardho!” Addressing a perennial problem for derivational approaches to syntax-phonology interactions, she implements a P(rosodic)-movement analysis to focus structures in Romance that traditionally affect the right phase edge and may involve (syntactically banned) rightward movement. The author finds interpretive differences between leftward and rightward movement, and explores the syntax-phonology interface and lack of

isomorphism, while staying within the lowest ν P-phase. An economical account of Focus in the right periphery in Romance languages can be offered, if rightward movement is allowed in the PF component. In this paper, Parafita redefines p(rosodic)-movement as a post-syntactic phenomenon that does not care about directionality, thus challenging accepted wisdom (Zubizarreta 1998). P-syntactic rules target clausal edges and are restricted in terms of locality. Nothing prevents movement to the right in p(rosodic)-syntax, since it has no recourse to syntactic hierarchical structure and both the leftward and rightward positions are available for Focus in Romance. But what is crucial is that they can be empirically distinguished. This gives rise to what look like edge effects, and can be taken as a powerful justification for the existence of a special area at the edge of each derivational cycle. After exploring the syntax-phonology interface, the author argues that the relationship between syntax and phonology is not always isomorphic, since there are disparities between the two components. Furthermore, she argues that the architecture of the grammar, in which discourse is taken into account, is more adequate from a descriptive point of view than the classic model, in which syntax is the only component that has the capacity to generate expressions. Every component of the grammar must have its own properties and rules (modular hypothesis), and at the same time the discourse, which acts as an “umbrella” over the whole model, must feed these modules.

In “A Minimalist, Distributed Morphology Approach to Intra-Individual Variation: Expletives and Agreement in an Insular English Variety,” Jeffrey K. Parrott pursues a highly interesting issue, namely how theoretical linguistics can benefit from, and contribute to, the empirical study of sociolinguistic (or “Labovian” intra-speaker) variation. He does so from a minimalist perspective on the syntax and architecture of the derivation and within Distributed Morphology as a model of insertion of vocabulary items (the phonological forms of functional terminals after spell out from the narrow syntactic derivation). Parrott examines both inter- and intra-speaker variation in the form of English expletives and their related patterns of verbal agreement. The article focuses on the variety spoken on Smith Island, where Parrott documents the sociolinguistically variable use of expletive *it* in the syntactic environments of *there*. As observed in other English varieties, verbal agreement with a (plural) associate nominal phrase is variably singular with expletive *there*; however,

verbal agreement is categorically singular with *there*-expletive *it* on Smith Island. Parrott argues that these facts pose significant difficulties for previous accounts, and offers an alternative analysis of expletives and agreement within a Distributed Morphology framework that denies the existence of uninterpretable Case and Phi features in the narrow syntax. On this approach, variation in expletive forms reflects the choice between semantically interpretable but grammatically equivalent lexical items prior to syntax. Variation (or categoricity) in agreement, however, results from the (non-)application of a variable post-syntactic phi-feature valuation rule.

Joachim Sabel provides “A Derivational Analysis of Condition B.” Picking up on the evidence that Condition A can be satisfied in the course of the derivation, the author provides theoretical and empirical arguments for a new derivational version of Condition B, arguing that a pronoun can violate Condition B at early stages of a derivation but that as soon as its uninterpretable formal features are erased (valued) it has to fulfill Condition B at every point of the derivation. Condition B applies at the step after the uninterpretable features of a pronoun are checked. This restriction follows from the fact that Condition B operates at the LF-or C(onceptual)-I(ntentional) Interface for generating a well-formed semantic representation. Given that elements containing uninterpretable features do not fulfill the necessary C-I interface legibility condition, pronouns with uninterpretable features are inaccessible for binding-theoretic relevant computations at early stages of a derivation. In addition, Sabel suggests that the same restriction holds for elements that are subject to Condition A. He concludes that Condition A and B are not “global” in nature, being active throughout every stage of the derivation. This is in accordance with the idea that linguistic expressions are optimal realizations of interface conditions, where optimality is determined by economy (Chomsky 1995).

Bridget Samuels, in “On the Left Periphery in Anatolian,” implements a modern syntactic analysis for ancient Anatolian, thereby updating existing treatments of Hittite and Lycian clausal structure proposed by Andrew Garrett (1990 *et seq.*). The syntactic analyses presented in this earlier literature are outdated from a theoretical perspective; recent advances in our understanding of the left periphery support some of Garrett’s findings while calling others into question. Samuels’ goal, therefore, is to rethink Garrett’s analysis, utilizing the insightful descriptive generalizations from the large

corpora surveyed in his work, while providing a different syntactic framework from which to interpret the data. She provides a unified analysis of what were previously considered to be separate processes of topicalization and “fronting” in Anatolian, and discusses the typology of correlative clauses in both languages as well as embedded relative clauses in Lycian.

In “A System of Referential Types for Attributive Structures and other Phases,” Volker Struckmeier argues that attributive structures in some languages have to be represented by a clausal, more specifically, a phase-level, structure. Struckmeier analyzes attributive structures in German (adjectival and participial attributes and relative clauses) and demonstrates that all of these can be represented in a uniform fashion, i.e., as a structure projected from a designated “attributizing” phase head. It is this representation that allows us to apply a precise definition of the traditional term “attribute” morpho-syntactically. The representation also directly leads to the question of what constitutes a phase, and how it interacts with the derivation. To address this question, Struckmeier proposes that phases cross-classify as “referential types.” This typology of phase heads integrates attributive phases into current syntactic theory, in that it makes attributive phases expectable types of structures, relating to CP, DP, and *v*P phase structures by means of their referential type and morphosyntactic feature make-up.

Hedde Zeijlstra argues that “Dislocation Triggers Uninterpretability,” addressing another major question that concerns formal features in minimalist approaches: (un)interpretability. In this article, he tackles four questions that arise from the above considerations: (i) How can the existence of uninterpretable material be motivated? (ii) Why does natural language exhibit uninterpretable material in the first place? (iii) Why are uninterpretable formal features deleted under Agree? (iv) Why is Move triggered if the simpler operation Agree could establish a feature checking relation in the first place? The aim of this article is to answer these four questions by arguing that many phenomena that have traditionally been accounted for beyond the domain of generative grammar—such as doubling phenomena—can be explained once it is assumed that natural language contains a large amount of uninterpretable material and that uninterpretability should be taken to be a core property of natural language. In addition, Zeijlstra suggests that it is not uninterpretable formal features that trigger Move/Agree, but that it is a property of natural language

that it must exhibit Move/Agree in the first place. This view implies that Move and Agree are equally economic operations.

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