

Mara Frascarelli (ed.), *Phases of interpretation* (Studies in Generative Grammar 91). Berlin: Mouton de Gruyter, 2006. Pp. ix + 390.

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This volume brings together 14 of the 30 papers on the programme of the 31st ‘Incontro di Grammatica Generativa’ (February 2005), plus an 11-page introduction to phase theory and the individual contributions to the volume. The result is a valuable but somewhat unbalanced collection of articles on syntax and its interfaces with Phonological Form (PF) and Logical Form (LF) – valuable because many contributions (all kept to a pleasant average of about 20 main-text pages) are outstanding case-studies; but somewhat unbalanced because quality varies considerably, and because only a few articles make a contribution to what the editor advances as the unifying theme of the volume, the Chomskyan phase. Several papers do not mention the word phase at all; others make little more than token references to the concept. The catchy title raises expectations (and, quite possibly, the sales figures as well) which are not fully fulfilled. Readers expecting a collection of state-of-the-art research on the role of phases in syntax and the interpretive components will likely find themselves little the wiser in this department after finishing the volume.

Mara Frascarelli’s introduction, entitled ‘Phases and interpretation’, succinctly reviews the key tenets of phase theory, and raises several important questions posed by it, concerning (i) what counts as a phase, (ii) the quintessential properties of phases (here Frascarelli echoes Chomsky in presenting ‘propositionality’ on the meaning side and ‘phonetic independence’ on the sound side as criterial properties of phases, and then goes on to conflate the two in the puzzling statement that ‘for CPs phonetic independence is obvious, since [*sic*] these objects are propositional units’ (6)), (iii) the Extended Projection Principle (EPP) and (indirect) feature-driven movement, and (iv) the parallelism between Complementizer (CP) and Determiner Phrases (DP) and (the consequences of) the phasal status of the latter. She concludes (7) that ‘the notion of phase is no doubt an important step forward’ but that ‘the *identity* and exact *properties* of phases is [*sic*] still an open issue for research’ (it is not the NOTION of a phase, however, that is a step forward – we had cyclic nodes, bounding nodes, and barriers before; it is the phase-based theory of cyclic spell-out that marks progress), and she promises the reader ‘original proposals for some of the major questions addressed in this introduction’ in the papers to follow. However, the volume overall sheds little light on questions (i)–(iv). Only (iv) is discussed directly (in Giusti’s contribution), and (iii) is addressed obliquely (in Hinterhölzl’s paper).

The editor’s introduction in particular, but several of the individual contributions (especially those by non-native speakers of English) as well, could have benefited from more rigorous editing if for no other reason than to

weed out such awkward locutions as ‘economical principles’ (2) instead of ‘economy principles’ and ‘minimal constraints’ (3) instead of ‘minimality constraints’, spurious or missing determiners, non-restrictive relative clauses introduced by *that* and restrictive relatives surrounded by commas, and sundry typographical errors (including ‘Helena Anagnostopoulou’ in the list of contributors). The volume also does not consistently supply the reader with a short, one-paragraph abstract for the individual papers: only about half the papers contain an abstract.

Phases of interpretation is organised into four chapters. Chapters 2–4 each address a particular phase: chapter 2 is concerned with ‘Interpretation in the DP-phase’; chapter 3 deals with ‘Functional projections in the vP-phase’; and chapter 4 is devoted to ‘The CP-phase and subject licensing’. Chapter 1 brings three papers together under the somewhat opaque title of ‘Interpretation and structural conditions’. This particular organisation of the book loses us some perhaps attractive juxtapositions of closely related papers. For instance, a dedicated topic-and-focus section of the volume could have collated the many contributions on this theme (which present an interesting microcosm of ideas) in a more compact way. In this review, I will cherry-pick some of the results that emerge from the individual papers.

In ‘Grafts follow from Merge’, Henk van Riemsdijk offers a study of transparent free relatives and other apparent anomalies in terms of ‘grafting’, where one constituent (the ‘callus’) is part of two independently generated subtrees. He shows that grafting is a natural consequence of the definition of Merge and compatible with phase theory so long as it is allowed to apply at any stage in the derivation prior to the point at which the subtrees sharing the callus are sent off to the interpretive components. Van Riemsdijk argues that his analysis can accommodate the grammaticality of split antecedents, as in *Bush_i would never acknowledge what Cheney_j refers to as each other_{i+j}’s mistakes*. But since neither of the ‘constituent clauses’ (**Bush_i would never acknowledge each other_{i+j}’s mistakes* and **what Cheney refers to as each other_{i+j}’s mistakes*) is itself well-formed, one wonders what definition of binding domain is required to make the result of grafting converge for Principle A. More straightforward are sentences like *They didn’t make what can reasonably be considered headway*, which have an idiom chunk as the callus. These are similar to specificational pseudoclefts like *What nobody made was any headway*, for which the logic of van Riemsdijk’s arguments would lead to a grafting analysis as well. Den Dikken *et al.* (2000) present a non-grafting analysis of such pseudoclefts, with an elliptical clause (~~nobody~~ *made any headway*) in postcopular position serving as the comment of a topic-comment structure. This allows me to move on in two directions: ellipsis and topics. I start with the former.

In ‘When we do that and when we don’t: A contrastive analysis of VP ellipsis and VP anaphora’, Carlo Cecchetto & Orin Percus present a beautifully crafted argument showing that, while Verb Phrase (VP) anaphora

involves semantic copying, VP-ellipsis presents a more subtle picture. They point out that in English, there may be variation between VP-ellipsis proper (involving PF-deletion) and covert VP-anaphora (cf. van Craenenbroeck 2004 for a similar conclusion based on ellipsis in Dutch dialects): for some speakers an apparent VP-ellipsis like *I examined every boy who asked me to* may be syntactically and semantically identical with *I examined every boy who asked me to do that*, suggesting that these cases involve a derivation in terms of VP-anaphora with a null pro-form. The authors argue that this strategy is independently exploited in Italian (apparent) VP-ellipsis, which gives them a purchase on the enigmatic distribution of VP-deletion in this language.

Italian is also the language of record in several studies addressing the topic-and-focus fields of the clause and the noun phrase. In ‘Parallels in clausal and nominal periphery’, Giuliana Giusti establishes several parallels between the left peripheries of CP and DP (her assimilation of Force and Case being particularly interesting), but argues that the absence of tense from DP renders only a partial parallel with CP. While both CP and DP feature a Topic phrase, DP lacks wh- and focus-projections. Giusti supports this conclusion with facts from Italian, Albanian and Serbo-Croatian, speculatively extending the argument to Turkish and Hungarian (although her Hungarian example, *gyönyörű egy állat* ‘beautiful an animal’, should arguably not be analysed as topicalisation; see den Dikken & Lipták 1997). Readers are left to wonder, however, how her current claim that there is no focus in the noun phrase tallies with Dimitrova-Vulchanova & Giusti’s (1999) argument that Bulgarian distinguishes between DP-internal focus fronting and topicalisation, which was based on the distribution of the focus particle *li* and resumptive clitics (on the latter, see also Cruschina’s paper in the volume under review).

Concerning the question of whether focus in DP is possible or not, Cecilia Poletto’s paper (‘Parallel phases: A study on the high and low left periphery of Old Italian’) presents data from Old Italian that suggest that reordering in the noun phrase can involve either topicalisation or focalisation. But her main focus is on object-verb order in the Old Italian clause, which she analyses in terms of phrasal movement to a focus position in the left periphery of VP/vP, confusingly dubbed ‘scrambling’ (which is usually considered an ANTI-focusing device). Poletto suggests that there might be a ‘topic-focus field’ at every cycle, with uniform feature specifications in each field. If this uniformity holds generally (but see, for example, den Dikken 1999 on subject agreement in Hungarian clauses and nominal phrases), ‘new perspectives open up for a unitary treatment of functional projections that occur in different phases’ (285), allowing us to find our way back to the ‘clustering’ perspective on parameters that characterised Government and Binding Theory, where a single flip of the switch works its way through the grammar like an oil spill.

Poletto's data indicate that focus-driven object-verb order in Old Italian is common with common noun phrases, predominant with *tutto* 'everything', and absent with *niente/nulla* 'nothing'. In Sicilian, by contrast, both *tutto* 'everything' and *neni* 'nothing' undergo focalisation yielding object-verb orders, as Silvio Cruschina's paper, 'Informational focus in Sicilian and the left periphery', shows. The plot thickens when we realise that in Hungarian, neither universal nor negative quantifier phrases are fronted for focus. If the analysis of the Hungarian pattern offered in the literature is correct, we may want to reconsider the conclusion that the leftward movement operations involving *tutto* and *niente/neni* in Old Italian and Sicilian involve focus.

Topics, not foci, are Alessandra Trecci's main topic in 'Who is *lui*? Reference of Italian overt and covert subject pronouns'. She distinguishes between three different topic positions. The highest is the position for 'aboutness topics', which Trecci takes to be required in every root sentence (a questionable assumption in light of Brentano's 1973thetic/categorical distinction). In null-subject languages such as Italian, overt preverbal subjects sit in one of these A-bar positions (cf. Alexiadou & Anagnostopoulou 1998). Overt pronominal subjects are topic shifters. They are severely restricted in their coreference possibilities with noun phrases introduced earlier in the discourse but, as Trecci shows, not entirely blocked from picking a previously mentioned noun phrase as their antecedent. While Trecci's discussion of the distribution of *pro* and overt subject pronouns is subtler than most, it should probably get even subtler to capture the variation in the interpretation of preverbal subject pronouns across the Romance languages (see Lapidus Shin 2006 on Spanish).

Like Trecci, Francesco Costantini looks at subjects in Italian. In 'Obviation in subjunctive argument clauses and the first-personal interpretation', he pays special attention to null subjects of subjunctival clauses and the obligatoriness of obviation (or disjoint reference). Building on important work by Alessandra Giorgi, Costantini specifically addresses the interesting observation that obviation is forced only if the subjunctive is a lexical verb, not if it is an auxiliary/modal.

In 'Number agreement and event pluralization: A case study', Valentina Bianchi also looks at binding facts, but from a different angle, concentrating on the distribution of the Italian reciprocal modifier *l'uno dopo l'altro* 'one after the other' and event pluralisation. She postulates two functional layers for event pluralisation in the structure of the clause, one low (right outside *vP*) and one high (at or near *TP*), and suggests that this, in conjunction with the role of finiteness, could cast new light on the distinction between grammatical and semantic agreement. 'High' number is grammatical number, blind to semantic number but directly tied to finiteness and person; 'low' number is blind to person and finiteness, and sensitive to semantic number. Bianchi shows how this makes sense of number agreement

mismatches in Italian. If her analysis is correct, it also settles the score on plural agreement with *committee*-type nouns in British English (cf. *The committee have agreed*): being tied to finiteness, this must involve Bianchi's 'high' number, which makes it a case of grammatical, not semantic, agreement (in line with den Dikken 2001).

Bianchi shows that the distribution of *l'uno dopo l'altro* is sensitive to the Aktionsart properties of the verbal predicate: sentences with atelic predicates are worse than those with telic predicates (*I soldati {spararono/*russarono} l'uno dopo l'altro* 'the soldiers shot/snored one after the other'). This follows from her analysis of reciprocal modification as event pluralisation. Event structure is centre-stage in the paper by Artemis Alexiadou, Elena Anagnostopoulou & Florian Schäfer, 'The properties of anticausatives crosslinguistically', which focuses on causative/anti-causative alternations – a notorious headache in the event- and argument-structure literature. Their central proposal is that all change-of-state verbs, be they causative, anti-causative or passive, have both a Voice-head and a CAUS-component in their core syntax. Anti-causatives either lack Voice altogether (which appears to contradict the authors' earlier declaration that all change-of-state verbs have Voice), or have a Voice-head with an implicit causer argument. Languages differ with respect to the availability of the latter option. The former, however, is universally available, and the only option for internally-caused events (*blossom, wilt*), which radically lack Voice (hence have no implicit causer argument, and cannot transitivise) but do have CAUS and hence are causative. The ability of internal-causation verbs to occur with Prepositional Phrase (PP) modifiers (as in *The flowers wilted from the heat*) that according to Alexiadou et al. require the presence of an implicit causer is explained as following not from the presence of a Voice head but 'from the encyclopedic meaning of internally caused roots' (203). But this, in conjunction with the fact that such PPs combine with verbs that have little or no argument structure at all (like *komen* 'come' in Dutch *Dat komt door/van de hitte* 'that comes from/is due to the heat'), undermines the case for a Voice-head with an implicit causer argument. If encyclopedic meaning (or even world knowledge) can license *from*-PPs, we do not need a functional head in the syntax to regulate their distribution.

Alexiadou et al.'s Voice [+/- AG(ENT)] is located right outside of the phrase headed by the functional category Caus, probably near Bianchi's vP-external Pl-projection with the nominal phi-feature [+Plural], the 'low' companion of the familiar number feature in the T-domain. Luigi Rizzi & Uri Shlonsky postulate another kind of abstract nominal phi-feature, [+Loc], in the left periphery of the clause in their contribution, 'Satisfying the subject criterion by a nonsubject: English locative inversion and heavy NP shift'. A fronted locative (or directional) PP has the peculiar property of satisfying the Subject Criterion (the 'EPP') apparently without occupying the subject position (SpecSubJP). For Rizzi & Shlonsky, locative inversion involves

movement of the PP to SpecFinP (above SubjP), followed by topicalisation (akin to the analysis in den Dikken & Næss 1993). The Fin-head has a nominal feature – [+Loc], ‘a particular kind of Phi-feature’ (346) – that satisfies the Subject Criterion, rendering movement to SpecSubjP redundant. If [+Loc] on Fin can satisfy the Subject Condition, one wonders why locative PPs, which presumably bear [+Loc], cannot do so by raising to SpecSubjP. If they could, the derivation would stop there: the PP could not raise further to the topic position (‘satisfaction of a Criterion creates a freezing configuration’; 341), so the island effects induced by locative inversion would remain unexplained. For Rizzi & Shlonsky, the XP that raises to SpecSubjP in English must be able to check nominative Case. PP_[+Loc] ostensibly cannot do that. But it is not obvious why it cannot, if [+Loc] is a nominal phi-feature. To ensure that PP_[+Loc] cannot satisfy the Subject Criterion and the Case Filter by raising to SpecSubjP, we need an explicit hypothesis about what counts as a Case-feature checker.

With locative inversion, we made our way back, via subjects, to topics. Topics can often be dropped. ‘Topic drop’ (as in Dutch *Heb ik al gezien* ‘have I already seen’), is plausibly analysed in terms of null operator movement (cf. Cardinaletti 1990; Haegeman 1990). From this perspective, Peter Svenonius & Christopher Kennedy’s proposed analysis for the omission of degree operators in Northern Norwegian questions is immediately familiar. In their paper, ‘Northern Norwegian degree questions and the syntax of measurement’, they argue that, on an interpretation of *Er du gammel?* ‘are you old’ as ‘How old are you?’ (which is grammatical in Northern Norwegian but not in the standard language), there is null operator movement to SpecCP. Crucially, this null operator corresponds to *hvað* ‘what’ in Icelandic *Hvað ertu gammall?* ‘what are-you old’, rather than to *kor* in Nynorsk *Kor gammel er du?* ‘how old are you’ (which must pied-pipe the adjective; pied-piping with a null operator is impossible: **Gammel er du?*). That Svenonius & Kennedy are right in assimilating the Northern Norwegian case to Icelandic splitting with *hvað* ‘what’ is confirmed by Dutch ‘wh-drop’ constructions. In Dutch, the wh-word *wat* ‘what’ need not be realised in wh-questions in which it fronts by itself; in pied-piping contexts, on the other hand, *wat* cannot be dropped: *(Wat) heb je nou (voor een boek) gekocht?* ‘(what) have you DPRT [= discourse particle] (for a book) bought’ vs. **(Wat) voor een boek heb je gekocht?*. Interestingly, *wat* can also be used as a wh-degree operator in exclamatives, but not in questions. As expected on Svenonius & Kennedy’s analysis, dropping the degree operator is possible only in exclamatives and only if no pied-piping of the adjective takes place: *(Wat) ben jij dik zeg!* ‘(what) are you fat DPRT’ vs. **{Wat/∅}ben jij dik?* and *{Wat/*∅}dik ben jij zeg!*.

One more paper addresses the left periphery of the clause: Roland Hinterhölzl’s paper ‘The Phase Condition and cyclic Spell-out: Evidence

from VP-topicalization'. This is the only paper invoking phases in an instrumental way. For Hinterhölzl, the left edge of the strong phase in the V-domain is AspP, with phrasal extraction proceeding via SpecAspP. The AspP phase, in conjunction with the idea that infinitives in West-Germanic are generally ambiguous between verbal and nominal infinitives (which Hinterhölzl term 'gerunds'), is used to explain the interaction of VP-topicalisation and the IPP-effect (*Infinitivus pro Participio*). In German, topicalisation of a VP that is selected by a perception verb obligatorily bleeds the IPP-effect on the selecting verb (e.g. *Lesen hat er ihn das Buch gesehen/*sehen* 'read has he him the book seen/*see'), whereas topicalisation of the VP selected by a modal leaves the IPP effect intact (*Lesen hat er das Buch wollen/*gewollt* 'read has he the book want/*wanted'). In Hinterhölzl's analysis, perception verbs differ from modals in choosing freely between verbal infinitives and gerunds as their complements (cf. English). When a gerund is selected, no IPP-effect manifests itself; the gerund raises to SpecAspP of the auxiliary (*hat*) and can undergo topicalisation. In contrast, selection of a verbal infinitive will trigger the IPP-effect. Moreover, when a verbal infinitive is selected, the infinitive raises to a lower position from which it cannot extract unless last-resort movement to SpecAspP were to take place. Such last-resort movement is available only if nothing else works – as in the case of modal verbs, where gerund selection is not available and IPP is forced. But perception verbs could alternatively select a gerund, with the derivation proceeding without last-resort movement (hence 'more economically'); so, according to Hinterhölzl, the verbal-infinitive-*cum*-IPP option is blocked with perception verbs whenever VP-topicalisation takes place. Thus, the crux of Hinterhölzl's analysis is that topicalisation of a verbal infinitive is ungrammatical if there is available a more economical derivation with a gerund (based on a different lexical array). This is a tricky move: nothing else said, it would block *there*-existentials with 'cheaper' NP-raising alternatives.

The two papers that remain to be discussed both address head movement. For Chris H. Reintges & Anikó Lipták, head movement (P-incorporation) plays a key role in the derivation of possessive sentences with 'have'. The focus of their paper, 'HAVE = BE + PREP(osition): New evidence for the preposition incorporation analysis of clausal possession', is on Coptic, which provides morphological support for the idea that 'have' is composed out of 'be' and an incorporated preposition. While Benveniste (1966: 197) famously claimed that *avoir* 'have' is nothing other than an inverted *être-à* 'be-to', Reintges & Lipták argue that in Coptic *wante* 'have', the 'be' (*wan*) that serves as the incorporator is not the 'be' of existential-locative sentences, and the incorporating P is 'with' (*wante*) rather than 'to'. However, we may be able to salvage the Benvenistian adage for Coptic if we find a solution for the different syntactic distributions of the *wan* 'be' of *wante* 'have' and the *wan* of existential-locative sentences, and decompose the preposition *wante* 'with'

into two components: (i) the linker *ən-* (see Reintges & Lipták's section 7.1), and (ii) *(t)e* (see their footnote 4), the Coptic counterpart to Benveniste's *à* 'to'. This hypothesis is worth exploring: after all, it may not be an accident that French *avoir* 'have' and *avec* 'with' share the initial sequence *av-*, which may quite possibly be a reflex of the incorporation of *à*.

Winfried Lechner's paper ('An interpretive effect of head movement'), finally, is an exemplary study of the syntax-semantics interface, demonstrating meticulously that there is at least one instance of head movement that has semantic repercussions and thus must take place in narrow syntax, not in PF. He starts out by showing that *Not everyone can be an orphan* has a reading in which negation scopes over the modal, which in turn scopes over the universal quantifier. Lechner proves that this reading cannot be obtained by reconstructing the universal below the modal in T. Accordingly, it must be the case that the modal raises to a position below the negative operator but above the lowest LF-position of the subject (SpecTP). Lechner identifies that position as Neg⁰, which the modal reaches by raising from T in the overt syntax. He obtains the correct word-order and scope results by having the subject raise to SpecAgrSP outside NegP but interpreting its copy in SpecTP: [_{AgrSP} **not everyone** [_{AgrS} [_{NegP} NOT [can [_{TP} not everyone [_{ean} ...]]]]]]] (where bold face indicates the position where a given element is pronounced, and underlining indicates where it is interpreted). Lechner's analysis has important consequences for the analysis of negative quantifiers. His paper also includes an interesting discussion of the licensing of negative polarity items in split scope configurations. But the bottom line of his argument is straight and simple: not all head movement can be relegated to PF.

The bottom line of the evaluation of the Frascarelli volume is less straight and simple. *Phases of interpretation* fazes one's interpretation of 'phases' in some places – but phases or no phases, what pays is that *Phases of interpretation* raises the investigation of a wide range of important issues in syntax to a higher level, for which this valuable volume deserves praises.

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