SHORTER NOTICES

Artemis Alexiadou, *Functional structure in nominals: nominalization and ergativity* (Linguistics Today **42**). Amsterdam & Philadelphia: John Benjamins Publishing Company, 2001. Pp. ix + 231.

Reviewed by STELLA MARKANTONATOU, ILSP

In this piece of work, Artemis Alexiadou addresses two important issues, which cut across modern linguistic research:

1. structures which present a categorically ambiguous syntactic behavior;
2. cross-linguistic distribution of ergative patterns (and the issue of transitivity).

Deverbal nominals are notorious for their categorically ambiguous syntactic behavior. Thus, although they are nouns, they exhibit verbal behavior in that, under certain interpretations, they admit complements and adverbial (aspectual and, for some languages, manner) modification. On the other hand, their similarity to ergative structures has long been known. Alexiadou both develops an explanatory account of the ambiguity issue and reveals several dimensions of the similarity between nominalization and ergative structures by offering an impressive survey of cross-linguistic data. The overall discussion is cast within the Distributed Morphology framework, which claims that functional heads fully determine the category of lexical heads.

As regards the first issue, the central idea is that categorically neutral roots are interpreted as verbs, nouns or some other grammatical category according to the syntactic environment, i.e. the functional projections, they attach to. Deverbal nominals are both semantically and syntactically ambiguous. They are semantically ambiguous because they may refer (roughly speaking) to both events and entities, and syntactically ambiguous because they may or may not admit syntactic arguments. Alexiadou explains this puzzling behavior by assuming that the different interpretations correspond to nominals with different functional structures. According to this account, event nominals embed a little v and an AspP under a D^0 in their functional structure, while result nominals lack such 'verbal' layers. Of course, underlying this dichotomy of nominals is the influential proposal of Grimshaw (1990) that deverbal nominals can be classified into syntactic argument-supporting nominals which denote events, on the one hand and, on the other, nominals which do not support any syntactic arguments and which range over a set of denotations (simple events, agents, objects, places, instruments). Grimshaw's proposal established a tight connection between the ability of a nominal to support syntactic arguments and its ability to present verb-like aspectual properties. As it seemed difficult to maintain that certain demonstrably argument-bearing nominalizations which denote entities had aspectual properties (e.g. agent and object nominalizations), Grimshaw's proposal had to distinguish between proper syntactic arguments (only attributed to the so-called complex event denoting nominals) and thematic adjuncts, which were licensed by the conceptual structure of the nominal. For Grimshaw, the licensing of syntactic arguments was achieved by an argument structure which, in turn, was licensed by aspectual properties and only by them. Alexiadou claims that an argument structure always exists because it is licensed by the (categorically neutral) root. Thus complements can always be licensed, if they are required by the root. It is the existence of 'verbal' functional layers, such as little v and AspP, which dictates the obligatory realization of complements (under appropriate conditions). Thus, Alexiadou dissociates argument structure from aspectual properties and allows for a certain degree of modularity. In this way, she accounts for a series of cross-linguistic data which would be unexplained within a Grimshaw-like framework. For instance, cross-linguistically, agent nominalizations do not accept adverbial modification, which is presumably licensed by argument structure, but they do support syntactic arguments.

At this point I would like to note that Alexiadou's proposal would gain in clarity if certain points were further elaborated:

1. Although a distinction is made between syntactic arguments and complements (the latter are licensed by the root and not by the functional projections), the terms are freely interchanged.
2. Telicity/non-telicity marking adverbial modifiers, which are considered reliable reflexes of the presence of AspP in the functional structure of nominals, are also considered by Alexiadou to be reflexes of lexical properties (e.g. Modern Greek argument-supporting nominalizations derived from psychological predicates). But the presence of the functional projection AspP is not well-established, especially in cases where manner adverbials are not allowed in the DP.

As regards the second issue, namely, that nominalization structures pattern with ergative structures, Alexiadou claims (contra Grimshaw 1990) that the nominalization process, rather than involving the suppression of an external argument, internalizes it and results in an essentially ergative structure. Alexiadou argues that this situation can be represented with the functional level v, which is deficient both in ergative languages and nominalizations, and which allows for structures with a single theme argument. In these structures, 'the agent is introduced as an adjunct type of phrase' (172). According to this analysis, the genitive case, assigned to 'theme'-like arguments of nominalizations, is a structural case, while the ergative case, assigned to 'agent'-like arguments, is not a structural case but a lexical/prepositional one. Alexiadou's proposal accounts for argument-supporting nominalizations derived from unaccusative predicates, which could not be explained within Grimshaw's framework. Furthermore, it explains the existence of two syntactic patterns with nominalizations, exemplified by the English data in (1) and (2) below, which are parallel 'to the configurations that have been argued in the literature on ergative languages to be responsible for the introduction of ergative subjects' (181):

(1) *Possessor Predicate Theme*, e.g. Nero's destruction of Rome.
(2) *Predicate Theme PP*, e.g. the destruction of Rome by Nero.

The expression of an 'agent' with a possessor phrase is demonstrated to be a pattern across 'ergative'-like structures, nominalization and verbal perfect structures alike.

Some inconsistencies as regards the argumentation, some controversial data and, occasionally, obscure phrasing can be detected within this volume. In the main, however, it is an inspired and well-founded piece of research, which succeeds both in shedding light on long-standing questions and, through its firm reliance on an impressive amount of cross-linguistic data, in establishing strong generalizations across languages.

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Michael C. Corballis, *From hand to mouth: the origins of language*. Princeton: Princeton University Press, 2002. Pp. xii + 257.

Reviewed by JAMES R. HURFORD, University of Edinburgh

Michael Corballis is a psychologist with a strong interest in lateralization, handedness and the origins of language. In this book, he puts these interests together with a solid and comprehensive survey of other background material relevant to the origins of language. The book also pushes Corballis' own specific hypothesis, that human languages were implemented mainly in manual gestures until about 50,000 years ago, at which point largely vocal language took over as an invented cultural innovation. This is an argument about the MEDIUM in which linguistic messages

were expressed. Corballis believes that the human capacity for generative syntactic language may possibly be as old as one million years. The argument is much less about when true linguistic generativity arose than about the hypothesized relatively recent switch to the vocal medium.

While conceding that Corballis succeeds in showing that this late switch to vocal language was POSSIBLE, it still seems to me to be very UNLIKELY. Corballis claims that the hominins of 150,000 years ago communicated mainly by manual gestures, but were (and here he agrees with the dominant view) biologically essentially the same as modern humans. Thus, they would have had all the potential of modern babies for acquiring skilled vocal articulation and control of complex phonological systems. Vocal language comes very naturally to modern humans. What took our ancestors so long (about 100,000 years!) to 'discover' the advantages of vocal language? Corballis believes that vocal language does have advantages over manual language and this, he argues, accounts for the displacement of the earlier waves of *Homo sapiens* by later waves of the same species, technologically superior due to possession of the better medium for language. Corballis' argument is a revamping of a position that used to be common among archeologists, especially those concentrating on the European Upper Paleolithic, that truly generative language itself did not emerge until some 45,000 years ago. At least he does not repeat that implausible suggestion. Instead, he has pushed the beginning of generative language back to around the beginning of *Homo sapiens*, which does seem plausible, while idiosyncratically sticking with a much later switch into the modern preferred vocal medium.

The argument for successive waves of *Homo sapiens* displacing each other is backed by DNA dating evidence, from which Corballis strategically chooses to rely on the shortest estimates of time back to the common ancestor of all non-African humans, about 50,000 years. But this argument conveniently forgets the African members of the human race; the common ancestor of ALL humans probably lived at least 150,000 years ago. The story outside Africa was apparently that the technologically superior humans with vocal language displaced their still manually communicating cousins from the gene pool, while back in Africa what must have happened was that the manually communicating people had the good sense to adopt the ways of the vocalists without getting outbred by them. Corballis does not pursue this African/non-African difference, though it seems to me to be pretty important for his case.

Most linguists will be dismayed to see that Corballis has swallowed the arguments of the long-range reconstructors such as Merritt Ruhlen. Clearly the idea that some pan-human etymologies can be reconstructed fits in quite well with the claim for a wave of newly-vocal humans conquering the world starting about 50,000 years ago. But here Corballis should have checked with a few more linguists. Most opponents of long-range reconstruction do believe that there may have been one single (spoken) human language, to which all modern languages could, in principle, trace some of their roots. The problem is that too much time has elapsed since this putative mother of all languages existed, and the routes to the present are in all likelihood totally obscured by later changes. As linguists like Larry Trask, Don Ringe and Lyle Campbell – to name but a few – loudly insist, no good answer has yet been given to the charge that the correspondences noted by the long-range reconstructionists are not above the chance level. In other words, no effort has been put into rejecting the null hypothesis. One might have expected a psychologist, above all, to be sensitive to this statistical problem.

Oddly perhaps, although the book's central argumentative thesis is, I believe, badly flawed, I still found this a very useful book in many ways. It does a good job of summarizing the tangled material on the prehistory of our species from *Australopithecus* onward, with a lot of very recent research mentioned. And on the complex situation regarding lateralization and handedness, Corballis is in his own element and a leading authority. As an indication of how fast research in this area is moving, Enard et al. (2002) have now discovered that a gene (FOXP2) which appears to be involved in articulation probably underwent a mutation within the last 100,000 years. Hence, the final step in the emergence of a fully vocal language may have been due to a mutation, not to a cultural innovation. Corballis, of course, could not have known of this while writing his book. I believe most scholars of the origins of language will now be convinced that manual gestures played an important role in bootstrapping humans into communication systems capable of REFERRING and of describing, at first iconically, a range of different actions. I will warmly recommend this book to my students in a course on the origins and evolution of language, but with the health warnings mentioned above.

The book is excellently written and structured. It is characterized by a lot of wry humour, some of which had me spontaneously laughing aloud. Read it – it's fun; the factual summaries, apart

from the misadventure into Ruhlen-land, are useful, and the problematic central argument is, one feels, by no means the whole point of the book. I also liked the novel layout adopted by Princeton University Press, where the footnotes occupy a narrow small-print column down the outside of the page.

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Guy Deutscher, *Syntactic change in Akkadian: the evolution of sentential complementation.* Oxford: Oxford University Press, 2000. Pp. xiv + 204.

Reviewed by UR SHLONSKY, Université de Genève

Guy Deutscher's major goal in his very well written monograph on the syntax of Akkadian is to trace the development of sentential embedding. He argues that finite sentential complements did not develop straightforwardly from paratactic structures but from (subordinate) adverbial clauses. Thus, the complementizer *kima* was at the outset a comparative and reason preposition 'because'. This preposition was gradually bleached of all but its subordinating (functional) role. Deutscher carefully documents the various stages of this process, from 3rd millennium BC Old Akkadian down to Neo-Babylonian texts from the 6th century BC.

Closer to the more familiar parataxis→hypotaxis shift is the evolution of *umma*. This expression started out in Old Akkadian as the head of an independent clause with the meaning (though not the morphology) of the verb 'say (that)'. Deutscher traces the gradual transformation of *umma* to a grammatical marker. As a complementizer, *umma* at first only followed verbs of saying, but its use expanded over the centuries and it ended up as an all-purpose marker of finite sentential complementation. Deutscher takes the evolution of *umma* to be a good example of the process of grammaticalization, in which 'a lexical unit or structure assumes a grammatical structure or where a grammatical unit assumes a more grammatical function' (Heine, Claudi & Hünnemeyer 1991: 2). Although the theoretical status of 'grammaticalization' is rather dubious, (see in particular, Newmeyer 1998: chapter 5), there are interesting and perhaps not accidental parallels in the evolution of complementizers in Akkadian and Indo-European (see e.g., Kiparsky 1995 on the development of Modern Germanic Comp).

The book is divided into four parts. The first part contains two introductions, one on sentential complementation and the other on Akkadian. I found the précis of Akkadian history and grammar extremely clear and well presented.

The second part of *Syntactic change in Akkadian* deals with the emergence of sentential (finite and nonfinite) complementation. The data (masterfully transcribed and glossed) and the presentation are characterized by remarkable clarity.

The third part of the book studies different types of sentential complements to verbs of different classes, modals and causatives. Indirect and direct questions are discussed in the final chapter of part III.

The final part attempts – rather speculatively – a functional explanation for the development of sentential complementation, attributing it to the growing complexity of communicational needs.

Since Deutscher's argument is not about cognitive structure, that is, he makes no claim about I-language (in Chomsky's sense), I think his point is in principle defendable if it is confined to a claim about written language and its uses. Beyond that, the relation between communicative needs and syntactic principles is very indirect, if it exists at all.

The book comes with a meticulously prepared index and a rich bibliography. I asked an Assyriologist colleague to comment on the book and she confirmed that, from her perspective, it was of solid scholarship. I think linguists with an interest in diachronic syntax will surely benefit from reading this book.

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Colin J. Ewen & Harry van der Hulst, *The phonological structure of words: an introduction* (Cambridge Textbooks in Linguistics). Cambridge: Cambridge University Press, 2001. Pp. xiii + 274.

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The phonological structure of words (henceforth PSW) is intended to provide an introduction to various fundamental units of phonology, in particular features, segments, syllables and feet. Throughout the book, Ewen & van der Hulst emphasize representational issues usually associated with various theories of non-linear phonology, including Autosegmental Phonology, Feature Geometry, Dependency Phonology, Government Phonology and Metrical Phonology, and apply these theories to a wide range of data. Although the book is intended to be suitable for 'the student who is approaching [phonology] with little previous knowledge' (xii), the authors assume some familiarity with phonetics and basic phonological concepts (e.g. phonemic theory). PSW is a clearly written and well-structured book which would be appropriate for courses dealing with non-linear phonology in general, or with one or more of the subtopics listed above.

PSW consists of four chapters, an appendix with an IPA chart, references and an index. Each chapter concludes with a very useful section on further reading.

In chapter 1 ('Segments'), the authors begin by discussing evidence that segments can be broken down into smaller units and provide a brief overview of major class features (including the sonority hierarchy), and place features for consonants and vowels. The bulk of chapter 1 is devoted to evidence for the arboreal representation of phonological features into various subgroupings (in particular Feature Geometry) and the analysis of tonal processes and vowel harmony as the spreading of one or more autosegments. Autosegmental Phonology is often introduced in textbooks with evidence from tone, with discussion of the autosegmental behavior of segmental features and Feature Geometry being treated only at a later point. In PSW, Ewen & van der Hulst take a different approach: they begin with a segmental phenomenon, namely nasal place assimilation in English, and then show how the autosegmental treatment can be extended to tone and harmony processes. As a whole, I find the strategy employed in PSW successful.

I had a few minor comments on some of the examples discussed in chapter 1. In their discussion of the features [tense] and [ATR] (18) the authors note that in RP the [− tense] vowels /ɪ ʊ ɛ æ ʌ ɒ ə/ form a class because, among other things, these are the only vowels which cannot occur in final

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position in a stressed syllable. On the same page, a vowel chart is presented (in (26)) which includes the tense and lax vowels, but the vowel /ɔ/ is classified there as lax. Although this analysis is correct for many other languages, in RP (and in most other varieties of English) /ɔ/ is usually analyzed as tense because it can occur finally in a stressed syllable. In their discussion of Autosegmental Phonology, Ewen & van der Hulst give examples of non-linear rules in which an entire node spreads, including data from English which illustrate that [coronal] assimilates from a stop or fricative onto a preceding lateral (e.g. /hɛlθ/→[hɛl̪θ]; 32–33). The authors write that the features [anterior], [distributed] and [strident] form a group because they appear to be involved in the spreading process. To make the example clear to a beginning audience, the authors could have included the features [anterior], [distributed] and [strident] in the rule which spreads [coronal] (in (52a)) and stated explicitly at this point that the spreading of a node by convention implies that all of the daughter features spread as well. (This convention is stated on page 44.) In the section on vowel harmony in Turkish, examples are discussed which show that [+back] and [+round] spread to the right. In Turkish, the spreading of [+round] does not occur across non-high vowels, thus the possessive plural of [yty] 'iron' is [ytyleri] (and not [ytylery]). The authors write that the final vowel of [ytyleri] is realized as [i] because the immediately preceding vowel is unrounded and 'so the possessive morpheme harmonizes in the expected way' (49). This statement suggests to me that the feature [−round] spreads from the /e/ in [ytyleri] and that this is the reason why the final vowel in this word is [i] and not [y], but in the derivation in (88) (on page 49) there is no feature [−round]. Thus, the reader wonders why the feature [+round] cannot skip /e/ (due to the convention in (87c), which forbids [+round] from associating with non-initial non-high vowels) and hook up with /i/, which would then surface as [y].

In chapter 2 ('Features'), Ewen & van der Hulst discuss further aspects of distinctive features, namely Contrastive and Radical Underspecification, redundancy, and single-valued features. These approaches to featural representation are then applied to several examples, e.g. Old English i-Umlaut and vowel harmony in Yawelmani and Yoruba. The final part of the chapter deals with three topics primarily from the point of view of Dependency and Government Phonology, namely dependency within the segment, consonants and single-valued features, and single-valued laryngeal features.

In the section dealing with Radical Underspecification, underlying feature matrices for various vowel systems are posited in which one of the vowels is completely underspecified (e.g. /i/ on page 77). At this point I would have liked to see some discussion concerning the theoretical ramifications involved with writing a rule which refers to this segment only. If the 'default' vowel has no features at all, how does one refer to this segment without writing a rule that refers to nothing? In the section on single-valued features, Ewen & van der Hulst discuss tier conflation (85). In their example they show how a vowel system without front rounded vowels can be captured (in a Government approach) with the three features **i**, **u**, **a** in which **i** and **u** are situated on the same tier. The analysis itself is successful but they could have mentioned that the approach to tier conflation here is not the same as tier conflation in the Feature Geometry model. Thus, in the latter theory, it is not generally assumed in the literature that tier conflation can create a structure in which only two features, but none of the others, e.g. [back] and [high], are located on the same tier. In the section dealing with Old English i-Umlaut the authors compare the Umlaut rule in a binary approach (as the leftward spreading of the feature [−back]) with a privative one, in which the frontness feature **i** spreads, (85ff.). They note that it would be impossible, given the latter theory, to formulate a rule as the spreading of [+back] or [−round] (88). Since such rules are apparently unattested, the authors conclude that the privative approach is to be preferred over the binary one. At this point the attentive reader will wonder how the authors could reanalyze the rule of Turkish vowel harmony, which was analyzed earlier as a rule spreading [+back] (71).

Chapter 3 ('Syllables') begins with a discussion of rule domains, showing first the necessity of larger units like phonological words and phrases, and then finally syllables. The reasons for positing syllables commonly cited in the literature (i.e. phonotactics and rule domains) are discussed with examples drawn from English and Dutch, followed by a section dealing with the representation of the syllable in terms of traditional subsyllabic constituents (onset, rhyme, nucleus, coda). This section deals not only with the onset-rhyme theory, but also with the internal structure of the rhyme, syllabification, and consonants which are situated outside of the syllable. The latter sounds include word-edge coronal obstruents in languages like Dutch and English which would violate the Sonority Sequencing Generalization if they were in onset or coda position (e.g. the [s] in *spin* and the [st] in *text*). The authors posit a representation (139) in which these

coronal segments occupy a prependix and an appendix position, respectively, both of which are situated outside of the syllable. The segments in the prependices and appendices are not to be confused with extrasyllabic segments, which Ewen & van der Hulst argue occur only after a bipositional rhyme. For example, in the Dutch word [strɪktst] the syllable consists solely of [trɪk] because the first [s] is in the prependix, the final [st] is in the appendix and the second [t] is extrasyllabic (149). The justification for analyzing this [t] as extrasyllabic is that VCC and V:C syllables are, in general, restricted to word-final position; were the syllable in [strɪktst] to be [trɪkt], then this generalization would not hold. Many readers might wonder how representations like the one on page 149 can account for the fact that extrasyllabic segments sometimes undergo syllable-based rules. For example, Dutch Final Devoicing is argued to apply syllable-finally (125), but if the obstruent undergoing the rule is extrasyllabic, how can it devoice? This would presumably apply to the /d/ in /lœyd/ *loud* (124), which I assume would be extrasyllabic because it is situated after a (bipositional) diphthong. The chapter continues with a short section on mora theory, the representation of length (in terms of X slots), and the independence of syllabic positions. The latter section is devoted to processes which require certain slots in non-linear representations to be empty, e.g. the rules required in rhotic and non-rhotic varieties of English, French liaison and h-aspiré, and certain compensatory lengthening processes (e.g. Tiberian Hebrew, Ancient Greek). The chapter concludes with a section dealing with licensing and government. Here the model of the syllable assumed in many studies on Government Phonology is explained at length.

Chapter 4 ('Feet and words') is a highly competent discourse on stress and accent and Metrical Phonology with data drawn from a number of languages. The chapter begins with a general introduction to stress and accent, in which reference is also made to intonation and focus. This is followed by a section on feet in poetry followed by a longer one on fixed accent and free accent systems. The bulk of chapter 4 is the section dealing with Metrical Phonology. The authors adopt a parametrical approach with individual parameters referring to headship (within a foot), directionality of foot assignment, weight-sensitivity and headship (of the word). The chapter ends with a brief section in which the stress systems of English and Dutch are compared.

I conclude that PSW is an excellent introduction to the fundamental building blocks of phonology and to various sub-theories of non-linear phonology. I recommend the book without reservation.

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Mara Frascarelli, *The syntax–phonology interface in focus and topic constructions in Italian* (Studies in Natural Language and Linguistic Theory **50**). Dordrecht: Kluwer Academic Publishers, 2000. Pp. ix + 224.
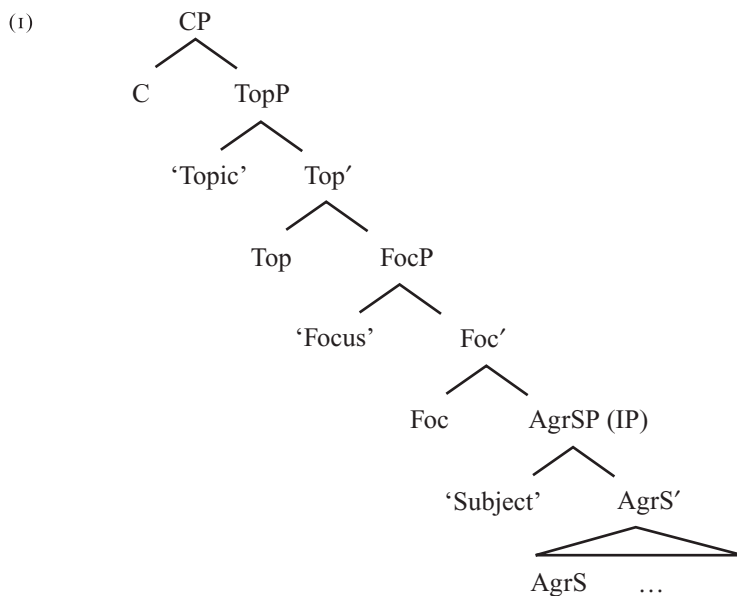
Reviewed by HUBERT TRUCKENBRODT, Universität Tübingen

This book is a revised version of Frascarelli's 1997 Ph.D. thesis, written at the University of Roma Tre. It treats preverbal and postverbal focus in Italian, as well as the structure of topics at the left or right periphery of the clause. The phonological investigation of prosodic boundaries in connection with focus and topic makes an important contribution to the literature on phrasing. At the same time, a syntactic analysis in the Minimalist framework (Chomsky 1995) is argued for, making an innovative contribution to Italian syntax. The integration of results from these two domains into a coherent account makes this book particularly interesting.

Chapter 1 provides brief introductions to focus and topic, Minimalist analysis, Kayne's (1994) Linear Correspondence Axiom, and prosodic phonology. A long chapter 2 presents the prosodic phonology results. A further long chapter, chapter 3, concentrates on the syntactic structure of

focus and topic in Italian. A short chapter 4 sums up conclusions about the syntax-phonology interface. This review first presents Frascarelli's claims about clause structure. Using this as a frame of reference, the main proposals of chapters 2, 3 and 4 are then presented in order, followed by an evaluation.

The syntactic structure shown in (1) below is argued for. 'Topic', 'Focus' and 'Subject' here indicate canonical positions for these elements.

(1)

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                    CP
                  /    \
                 C      TopP
                      /      \
                'Topic'       Top'
                            /      \
                          Top      FocP
                                 /      \
                           'Focus'       Foc'
                                       /      \
                                     Foc      AgrSP (IP)
                                             /        \
                                       'Subject'       AgrS'
                                                      /    \
                                                   AgrS     …
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In a declarative with no narrow focus, all elements remain within AgrSP. The subject moves to [SPEC,AgrSP] and the verb moves to the head of AgrSP. The derived word order is (S)VO. Here and elsewhere, C may host an overt complementizer.

Where narrow focus enters the picture, the analysis postulates dramatic changes, which revolve around the use of FocP. (a) In the presence of (preverbal or postverbal) narrow focus, the finite verb must raise to Foc, the head of FocP. Combinations of finite auxiliary and non-finite main verb are argued to jointly move to Foc. Thus in *ha telefonato MASIERO$_{+F}$* 'MASIERO called', the verbs *ha* and *telefonato* form a complex head that moves to Foc, preceding the subject in [SPEC,AgrSP]. (b) The focused element itself has two options: first, it may move to [SPEC,FocP], 'Focus' in (1), to form a preverbal focus construction, as in *LUIGI ho visto al cinema, non Mario* 'I saw LUIGI at the cinema, not Mario'; second, it may remain in situ postverbally, with the consequence that no element other than the focus may remain inside of AgrSP (recalling the results of Vallduví 1990 on Catalan). (c) Topics (roughly, given XPs, not included in a narrow focus) must be base-generated in [SPEC,TopP] (adjunction to TopP is allowed for further topics). Their thematic role will be carried by an empty *pro* and, depending on case and other considerations, by a clitic on the verb.

Feeding into the structure in (1), chapter 2 presents results concerning the prosodic effects of focus and topic. Prosodic structure is investigated at two independent prosodic levels, the phonological phrase (Φ) and the larger intonational phrase (I). Φ and I are determined by the phonological diagnostics of Nespor & Vogel (1986): Φ blocks the postlexical phonological rules of RADDOPPIAMENTO SINTATTICO (gemination across words under certain conditions) as well as the RHYTHM RULE (related to stress clash and strength of stress). The intonational phrase blocks two varieties of spirantization across words, GORGIA TOSCANA and INTERVOCALIC SPIRANTIZATION. Frascarelli investigates the prosodic effects of focus and topic with about 500 sentences recorded in controlled contexts, each read at three different speeds by fifteen native speakers of Italian from Rome, Florence and Milan. (The set of test sentences is not included in the book, nor are

quantitative results given. Rather, the results are summed up in the text and illustrated with examples.)

An important result about the connection between syntax and prosody concerns topics and intonational phrases. Nespor & Vogel (1986) found that root clauses as well as expressions with non-canonical syntactic attachment – such as parentheticals and appositive relatives – form separate intonational phrases. To this, Frascarelli adds that topics in Italian generally form separate intonational phrases (with motivated exceptions; see below).

Other interesting results are argued to be connected to preferences for binarity in the higher prosodic representation. First, a preference for intonational phrases to contain two Φs is found to emerge in faster speech. It leads to optional restructuring of short Is with adjacent Is, and gives rise to motivated exceptions to the mapping of topics into separate Is. Second, a process of Focus Restructuring will lead to the deletion of a Φ-boundary to the immediate left of the focus main stress and thus to the formation of a larger Φ in connection with focus. Frascarelli links this to a cross-linguistic claim made by Kenesei & Vogel (1990) and suggests a prosodic motivation: Φs have a preference for consisting of two prosodic words. In interaction with focus, this preference emerges in a strengthened form in focus main stress position, leading to the incorporation of the prosodic word to the left of the focus into the Φ containing the focus.

The simultaneous testing for Φs and Is in a variety of syntactic configurations leads to a clear picture of the prosodic structure. Some of the findings have interesting repercussions for the syntactic analysis. For example, a postverbal focused XP, as in *andrò al CINEMA con i miei amici* 'I will go to the cinema with my friends', is followed not only by a Φ-boundary, but also by an intonational phrase boundary. This is evidence that the phrase following the focus (here *con i miei amici*) is a topic, realized outside of AgrSP. A section at the end of chapter 2 offers brief extensions of the analysis to Hausa, Chicheŵa, English and Serbo-Croatian.

Chapter 3, on syntactic structure, has a first part about the structure of focus, and a second part about the structure of topics. In addition to grammaticality judgements, the argumentation in this chapter relies on evaluations of a corpus (De Mauro 1993), consisting of recorded conversations and unidirectional speech (here quantitative results are given).

The section on focus argues for the special status of the verb in focus constructions as the element checking a strong feature in Foc, the head of FocP in (1). A symmetrical analysis of pre- and postverbal focus is defended. For preverbal focus, this involves a checking relation in the canonical Spec-head configuration. For postverbal focus, syntactically in situ, an effort is made to motivate a view by which displacement from AgrSP of all constituents other than the focus also allows for a checking relation with the verb in Foc, given an extended definition of the checking domain. The discussion includes a comparison with the analysis of Kiss (1998) for Hungarian; postverbal subjects and their informational properties are discussed in some detail, and the relation to Italian 'Aux-to-COMP' movement is addressed. Wh-constructions and negated constructions in Italian are argued to likewise make crucial use of FocP. The discussion of the syntax of focus closes with applications of the analysis to English, Hungarian and Greek.

The section on topics contains discussions of the clitics that may or must resume the topic element in Italian, and issues related to islandhood, minimality effects, topics in subordinate clauses, and weak crossover. A section on Right Topicalization develops an analysis of right-hand topics that conforms to the ban on right-adjunction by the Linear Correspondence Axiom: topics on the right are base-generated in canonical 'Topic' position on the left in (1) and come to be on the right by movement of the remainder of the clause to the left of the topic (no arguments from Italian against right-adjunction are given). Clitic optionality with right-hand topics and hanging topics is also briefly discussed. A final cross-linguistic section on topics concentrates on English, Modern Greek and Chicheŵa.

An issue that remains open is the divide between the (contrastive) IDENTIFICATIONAL FOCUS and the (given/new) INFORMATION FOCUS of Kiss (1998). Frascarelli argues against Kiss's particular proposal with Somali data (though I find that more of Kiss's tests would have to be applied before the case could be closed). The distinction is also present in Italian, where preverbal focus must be contrastive, while postverbal focus may be of either kind. This does not find a place in Frascarelli's account, which concentrates on a symmetrical analysis of pre- and postverbal focus.

Finally, how does Minimalist theory interface with actual phrasal phonology? Minimalist theory itself makes increasing reference to PF and interface interpretability, and there is ample room for discovery in regard to how this relates to phonologically testable PF-phenomena. Frascarelli makes two contributions here. First, she plausibly suggests that elements within the

same checking domain form intonational phrases together. Topics thus form separate intonational phrases because they are not connected to the rest of their clause by a checking relation (or a more narrowly grammatical relation), but only by a binding relation with (clitic and) pro. A second suggestion concerns the visibility of [+F] on the focused element if it remains in situ. Frascarelli suggests that the visibility of the feature [+F] at PF is achieved by the [+F] constituent being the only Φ within the sentential intonational phrase. However, since prosodic constituents and PF-configurations are not accessible to the LF-side of grammar in the theory, the prosodic configuration cannot be relevant for visibility at both interfaces, LF and PF. Here, Frascarelli suggests a syntactic parallel to the prosodic condition: non-focused elements must be extraposed so as not to interfere in the checking relation between the verb in Foc and the [+F] constituent in situ, or, relatedly, so as to guarantee [+F] visibility more generally. This suggestion is formally too vague and hybrid to make clear predictions for other cases. Since it also revolves around a case where it is not empirically clear whether the restriction is syntactic or prosodic, this may not be the kind of case from which one could learn more about the syntax-phonology interaction with any certainty. The crucial news in regard to the syntax-prosody interaction within Minimalism thus seems to be the first proposal, relating checking domains and intonational phrases.

I turn to an evaluation. The book may seem to culminate in chapter 4, on the syntax-prosody mapping, with the proposals discussed in the preceding paragraph. However, my impression is that its strengths lie, more than in these interface-proposals, in what is gained and learned for each particular module of grammar by the joint investigation of different sides of grammar. In the section on prosodic structure, new results on phrasing of focus and topic are made possible by taking information status as well as the syntactic structure argued for into account. In the section on syntax, the structures argued for are supported by the prosodic results. A compelling set of syntactic core proposals is arrived at, involving the movement to FocP. Here, apart from the prosodic support, Frascarelli's close look at the information status has paid off and led to a convincing account of the position of subjects and other syntactic arguments, and their informational restrictions in different positions. (The movement of a number of verbs together to Foc may be considered to be too bold a step by some. However, given the supporting evidence, I for one hope that this proposal may become a serious contender in the debate on Italian clause structure, and perhaps clause structure in other languages.)

Some readers may find the syntactic argumentation too cursory to be convincing when it comes to more involved arguments, as in connection with parasitic gaps, weak crossover, etc. Here, grammaticality judgements are often reported on a single sentence, rather than on a minimal pair that demonstrates the relevance of the factor that is invoked in the explanation. The terrain surrounding the judgements that are reported is rarely explored in more detail, nor is background on the application of particular tests to Italian given. One is thus sometimes left to wonder how well the arguments over details are supported by a wider range of data. Other readers may not be satisfied with the use of Minimalist theory. With some modifications of the original, the suggestions seem coherent for the core of the proposals. However, there are also a number of cases where a Minimalist formulation is presented as an explanation, and where no sense arises of a larger integrated system from which the details are derived. Yet other readers may not be sure about what to make of the cross-linguistic sections in chapters 2 and 3, which are often suggestive enough to be interesting, but too brief to be considered results. Overall, however, the book offers what seems to me important contributions in all areas of grammar that are addressed, made possible by the simultaneous investigation of the prosodic and syntactic structure of focus and topic.

The University of Roma Tre has had a Department of Linguistics since 1993. Mara Frascarelli graduated there in 1997 and is now herself an associate professor there. Her book is very well worth reading. It is not only a demonstration of impressive breadth, but also constitutes a good reason to stay tuned in for further developments at Roma Tre.

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Aafke Hulk & Jean-Yves Pollock (eds.), *Subject inversion in Romance and the theory of Universal Grammar* (Oxford Studies in Comparative Syntax). New York: Oxford University Press, 2001. Pp. 215.

Reviewed by MARGARITA SUÑER, Cornell University

This timely book addresses a topic in the forefront of linguistic research for more than 20 years. The seven essays benefit from a comparative approach. With one exception (João Costa's paper), all articles use the Principles and Parameters Chomskian approach.

In 'Subject positions in Romance and the theory of Universal Grammar', the editors review the original issues (EPP satisfaction and postverbal subject position in null subject languages and French) and proceed to more contemporary comparative issues (the lexical field and the internal subject hypothesis, the inflectional level and the possibility of V raising, the left periphery and the syntax-discourse interaction). They also briefly summarize each article.

Pilar Barbosa's 'On inversion in Wh-questions in Romance' concentrates on why the subject cannot intervene between a non-d-linked argumental *wh* and Infl in null subject languages (NSLs), arguing (with others) that *wh*s land in SpecIP and agree with the [+wh] root Infl. Thus, both root and embedded questions may be bare IPs. Moreover, she assumes that V does not raise to C (unlike in Germanic), that agreement in NSLs is sufficient to check the EPP, and that preverbal subjects are left-dislocated. In French and Portuguese, the *wh* lands in SpecIP in root contexts, but in SpecIP or SpecCP in embedded contexts:

(1) (a) Je me demande [$_{IP}$ à qui téléphone Marie].
        I   me ask   to who call   Marie
        'I wonder whom Marie is calling.'
   (b) Je me demande [$_{CP}$ à qui Marie téléphone].
        I   me ask   to who Marie call
        'I wonder whom Marie is calling.'

Maria Luisa Zubizarreta's 'The constraint on preverbal subjects in Romance interrogatives: a Minimality effect' addresses the same topic as Barbosa's paper: the prohibition against the subject intervening between a fronted bare *wh* and V. Unlike in English, where arguments merge into the VP, verbal arguments in Romance merge with a formal clitic (CL) operator generated above TP, which externalizes an argument of V and binds an argument variable in the VP: [DP_k [CL_k [T [... [$_{VP}$ e_k ...]]]]]. Hence, preverbal subjects are directly merged in Spec CL-Op (i.e. left-dislocated) and the CL creates a minimality effect when an interrogative *wh* moves to the Spec of a *wh* projection:

(2) *Me pregunto [qué$_i$ [wh/Q$_i$ [Juan$_k$ [CL$_k$ [$_{TP}$ compró [e_k [V e_i]]]]]]].
    to-me ask.1SG what   Juan   bought

The CL may also merge above the Q-projection in the left periphery to avoid minimality effects in complex inversion in French and Northern Italian dialects. Zubizarreta further discusses the lexicalization of the Q-operator, and asymmetries in word order between matrix and embedded interrogatives.

The objective of Adriana Belletti's '"Inversion" as focalization' is to analyze VS order in a number of contexts. She claims that a subject representing new information raises from the vP to a

clause-internal Foc(us)P not associated with informational focus and that the V raises above it. Some of the constituent orders discussed for Italian, given along with their grammaticality status, are: ??VOS, *VSO, VS[PP] and VS[CP]. In essence, arguments of V may follow the subject only if they can remain in their VP-internal positions. Belleti also discusses the reordering of different types of complements with respect to inverted subjects, and order with unaccusative verbs.

João Costa's 'Marked versus unmarked inversion and Optimality Theory' addresses the question of why inverted orders are not universally (un)marked. The hypothesis is that unmarked word order emerges when the effects of top-ranked discourse-related constraints are controlled for. Portuguese displays a one-to-one correspondence between word order and information structure: [ALIGN FOCUS (focused constituents are rightmost in the sentence), TOP-FIRST (initial constituent is the topic)] ≫ Subj-Case (in Spec-IP) ≫ STAY (don't move) ≫ Obj-Case (in Spec-Agr-O). He captures the unmarked orders of two dialects of Spanish (SVO, and VSO where preverbal subjects are left-dislocated), Greek VSO and Italian VOS by reranking the constraints.

Richard S. Kayne & Jean-Yves Pollock contribute 'New thoughts on Stylistic Inversion', a detailed discussion of Stylistic Inversion (SI) contexts: *wh*-headed interrogatives, relatives, exclamatives and clefts, as well as embedded subjunctives and indicatives, and the focalizer *ne-que*. SI belongs to non-colloquial registers which have 3rd person silent clitics (SCLs). The specific SI-subject raises to a high position above the IP ($=$FP), leaving a silent clitic behind, and IP moves above the SI subject to another FP (which they call GP). Thus, (3a) has the partial derivation in (3b).

(3) (a) le jour où à téléphoné Jean
      the day when has telephoned Jean
  (b) $[_{IP}$ Jean-SCL à téléphoné $]\rightarrow[_{FP}$ Jean$_i$ F$_0$ $[_{IP}$ t$_i$- SCL à téléphoné]]$\rightarrow$
    $[_{GP}$ $[_{IP}$ t$_i$- SCL à téléphoné $]_j$ G$_0$ $[_{FP}$ Jean$_i$ F$_0$ t$_j$]]

SI subject raising cannot target a Spec-FP immediately above IP because the SCL cannot be too close to its antecedent. The marginal status of SI indicatives, (4a), vs. subjunctives, (4b), is due to subjunctives being more permeable to extraction.

(4) (a) ??? Je crois qu'est parti Jean.
      I think that is left Jean
    'I think that Jean has left.'
  (b) Il faut que Jean parte.
     it is.necessary that Jean leave
    'It is necessary for Jean to leave.'

SI needs no trigger: it occurs when a *wh* or some matrix material above IP allows SI subject raising not to be too local/vacuous. Kayne & Pollock also discuss special SIs, which require extra assumptions or rules (SI impersonal passives, the ungrammatical *en quel sens* and *pourquoi* interrogatives with SI, etc.).

Knut T. Taraldsen's 'Subject extraction, the distribution of expletives, and Stylistic Inversion' develops an alternative analysis of the French *que/qui* distribution inspired by Vallader *cha/chi*, Norwegian *som* and Danish *der*. *Qui* equals *qu(e)* + expletive subject *i* in SpecIP, which implies that the real subject moves from a low position (as in Spanish and Italian) and also implies the absence of *that*-t effects:

(5) Quelles filles$_k$ … $[_C$ que $[_{IP}$ **i** vont $+$ I $[_{VP}$ t$_k$ V acheter ce livre là]]]?
    which girls that will buy that book there

Taraldsen criticizes the classic SI account because a null *pro* in SpecIP predicts the absence of *that*-t effects and no *que/qui* alternation. Instead, he suggests that the subject exits the VP and, subsequently, an extended projection of V raises over it, an analysis akin to Kayne & Pollock's. In conclusion, subject-V inversion is more pervasive in French than previously thought.

This collection should be read by everybody interested in Romance syntax; its goal – 'to give easy access to a substantial array of facts in a representative sample of Romance languages' (10) – has been amply fulfilled. This is not to say that the articles do not raise many interesting empirical and conceptual problems. I limit myself to two for reasons of space. The first relates to

the claim that preverbal subjects in NSLs are left-dislocated (Barbosa, Costa, Zubizarreta), which predicts that they should not give rise to scope ambiguity (as opposed to English subjects) and that they should reconstruct. However, the Spanish in (6a) is ambiguous, its two interpretations being given in (6b, c):

(6) (a) Un vigilante   montaba guardia en cada esquina.
        'A policeman stood   guard   in every corner.'
    (b) 'For every corner there is a different policeman.'
    (c) 'The same policeman is in different corners in successive periods.'

And with a preverbal subject, the highlighted elements in (7a) can co-refer, but they cannot co-refer with a postverbal subject, as in (7b).

(7) (a) [El novio   de **Lea**] **la** besó en la calle.
        the boyfriend of Lea her kissed in the street
        'Lea's boyfriend kissed her in the street.'
    (b) ***La** besó [el novio de **Lea**].

These facts show that preverbal subjects behave like A-elements (cf. Suñer 2001).
    The second problem is raised by Kayne & Pollock's SI article, where derivations are given even for marginal examples: to what extent should the grammar account for the marginal examples of a learned construction? Should it generate all examples or only the core of the SI construction and let speakers produce the marginal ones by extending their grammars example by example in a very 'lexical' manner?

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John E. Joseph, Nigel Love & Talbot J. Taylor, *Landmarks in linguistic thought II: the Western tradition in the twentieth century* (Routledge History of Linguistic Thought Series). London & New York: Routledge, 2001. Pp. xiii+265.

Reviewed by PHILIP CARR, Université Paul Valéry

There is a strong case to be made for offering linguistics students a course covering different approaches to the study of language. Such a course can broaden the horizons of students beyond the task of linguistic analysis, encouraging them to critically examine the fundamental assumptions made by different linguists about the object and nature of linguistic inquiry. This book is ideal for use on a course of this sort. It is the successor to Harris & Taylor's earlier volume (1989), which covered the Western tradition from the classical period until the end of the nineteenth century, so it can also usefully be used in conjunction with that volume on a history of linguistics course.
    The format of each chapter is the same: a quotation is given from (what is taken to be) a landmark text by someone considered (by the authors, of course) to be a twentieth century key

thinker on language; the chapter subsequently gives an outline of the main themes of the thinker in question, often accompanied by critical commentary which also seeks to place them in their intellectual context, and a useful guide to further reading for each chapter is given at the end of the book. The idea is an ambitious one: it is a difficult feat to do all of this, in an accessible manner, in about a dozen pages for each thinker. The book is a clear success because the chapters succeed in achieving this. Each chapter, in conjunction with the suggested reading, would work very well as the basis for either a lecture or a discussion seminar (or both).

The term 'Western' in the title turns out to mean, in almost all cases, 'Anglo-Saxon'. It is unfortunate that continental Europe is under-represented, and one wonders how justified it is to cover Orwell, of whom it is hard to say that he wrote a landmark (or indeed any) text devoted entirely to language, at the expense of, say, Coseriu, Trubetzkoy or Hjelmslev. To be fair, a French thinker is selected, but the choice is Derrida, whose work is, arguably, pretentious, obscurantist and barely coherent. The choice is justified in the sense that his work does purport to constitute a serious contribution to the study of language, and it has been widely read outside of France. But Derrida has made his mark within the domain of self-styled 'literary theory', and not within the field of serious language study. I would rather have seen coverage of a French scholar such as Benveniste, Culioli, Martinet or Sperber. The decision not to include such a figure limits the usefulness of the book in many university departments in France. One understands that the authors explicitly state that they are not concerned to limit their coverage only to thinkers who are normally described as 'linguists'. But, given the space restrictions, there is a good argument for at least excluding Orwell in favour of a continental linguist and ditching Derrida.

I lack the space to discuss each chapter, but I especially admired those on Skinner, Jakobson, Whorf and Chomsky. The Skinner chapter is useful for students who have been asked to read Bloomfield and Chomsky, and who have been told about Chomsky's (1959) review of the behaviourist approach to language study adopted by Skinner. The Jakobson chapter is excellent; some mention of recent work by Vihman et al. (1985) would show the reader that Jakobson was wrong to postulate a major discontinuity between babbling and the onset of first words in the child's development, and it would also help the reader connect this aspect of Jakobson's work with more recent work. Similarly, the reading for the chapter on Whorf could benefit from mention of recent neo-Whorfian work in anthropology and in linguistics (see Bowerman & Levinson 2001). The Chomsky chapter rightly focuses (among other things) on the claim that language is a biological, rather than cultural, phenomenon, but it would have been of use to students to see some explicit discussion of the notion 'I-language'. The chapter on the species-specificity of language is fascinating and well written, but it is debatable whether Savage-Rumbaugh should be considered to have written a landmark text (tellingly, her name is missing from the back cover), even if the issues are of considerable importance.

Anyone teaching this course needs to inform their students that the authors have all been associated with the work of Roy Harris, and thus have, at least to some extent, shared assumptions about language study, assumptions which are bound to inform their criticisms. A cynic might suspect that one of the minor aims of the book is to put Harris right up there among the greats, on a par with Chomsky. However, as with Bertrand Russell's *History of Western philosophy*, as long as the reader understands the general outlook of the author(s), one can bear them in mind in critically assessing the critical assessments given by the authors.

The decision to place Saussure in the earlier volume is clearly motivated in strictly chronological terms, but it is a real pity not to have him covered in a book dedicated to the twentieth century, since Saussure is an obvious place to start on any course of this sort. Additionally, coverage of Saussure would allow cross-chapter connections to be made between his work and that of others in the twentieth century.

Despite the minor criticisms expressed here, it seems to me that *Landmarks in linguistic thought II* is an excellent, immensely useful book, which all students of language ought to be encouraged to read and discuss. It is well written, intelligently conceived and very accessible. I would very much have liked to have had access to it when I was an undergraduate student.

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David Pesetsky, *Phrasal movement and its kin* (Linguistic Inquiry Monograph **37**). Cambridge, MA: MIT Press, 2000. Pp. xi+132.

Reviewed by CEDRIC BOECKX, University of Illinois, Urbana-Champaign

Phrasal movement and its kin is an important contribution to the nature of the displacement property of natural language. In this monograph, Pesetsky extends empirically and refines conceptually his earlier (1987) contention that there are two ways of licensing in-situ wh-elements in 'covert' syntax. In 1987 the two mechanisms were covert (phrasal) movement and unselective binding. A major contention of the 2000 work is that covert phrasal movement must be retained as a licensing procedure, contrary to Chomsky's (1995) claim that covert movement reduces to movement of features (as opposed to phrasal movement). Pesetsky motivates his proposal on the basis of scope facts (mainly involving Antecedent Contained Deletion) as well as theory-internal considerations concerning the nature of multiple questions (multiple wh-fronting in particular). The second licensing mechanism for in-situ wh-words is now claimed to be Agree, a licensing-at-a-distance procedure proposed by Chomsky (2000) as an alternative to Chomsky's (1995) feature movement.

Coupled with the standard process of overt phrasal movement, covert phrasal movement and Agree conspire to yield a picture of multiple wh-questions where apparent violations of Superiority (roughly, the requirement that a higher wh-phrase be licensed prior to a lower one in a multiple question) reduce to situations where the higher wh-phrase is licensed via Agree, which is followed by phrasal movement of the lower wh-phrase. In other words, there are no cases where a lower wh-phrase is licensed prior to a higher one (i.e. there are no genuine superiority violations).

Another central proposal of this monograph is that covert licensing operations should not be understood in the classic Government-Binding sense, according to which covert operations take place after all overt operations (cf. Chomsky & Lasnik's (1977) so-called Y-model). According to Pesetsky, the distinction between overt and covert (phrasal) movements is a matter of pronunciation: which copy (left by movement) is realized in PF. If the lower copy is pronounced, the effects of covert phrasal movement obtain. If the higher copy is pronounced, overt phrasal movement results. As for Agree, Pesetsky assumes, with Chomsky, that it takes place cyclically, not in a distinct component after Spell-Out. Thus, overt and covert operations are interleaved, as in the models of grammar pursued by Chomsky (2000) and others. There is only one syntactic cycle.

The first part of the book (chapters 2–4) relies on observations and generalizations about overt multiple wh-fronting to establish the need for the array of movement-like operations summarized above and to determine what kind of wh-phrases require phrasal movement when they appear in situ. Pesetsky's conclusion is that only D-linked wh-phrases may be licensed via Agree. Unfortunately, Pesetsky does not manage to deduce his conclusion from anything else. Future research based on Pesetsky's taxonomy will want to focus on this issue.

The second part of the book (chapter 5) combines all the insights of the previous chapters to analyze the now hotly debated area of quantifier-induced barriers, where a quantifier c-commanding one or more wh-phrases in situ limits the range of interpretation of multiple questions (see Beck 1996 and much subsequent work). Pesetsky analyzes such intervention effects in English,

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German, Japanese and French. The account crucially relies on the range of movement types discussed above, as well as on properties of the complementizer in various languages (in particular, it relies on whether or not a complementizer requires more than one specifier). By analyzing intervention effects in several unrelated languages, Pesetsky provides a wealth of facts that are bound to be a great source of information for future research, even if Pesetsky's specific proposals turn out to be wrong.

The book is written with great clarity and provides a lot of background information, which makes the study self-contained and accessible to graduate students who may not have been exposed to the most recent developments in Minimalist syntax. Further, Pesetsky's arguments for covert phrasal movement have recently been extended (see Chomsky 2001a, b) and the work is intriguing enough to motivate subsequent studies in the domain of (multiple) questions and related issues.

But, as already mentioned, it is unfortunate that Pesetsky does not manage to explain why Agree as a licensing procedure is limited to D-linked wh-phrases. Also, his case would have been stronger if his analysis of overt multiple wh-fronting had managed to dismiss the alternative approach, explored in several works by Željko Bošković (summarized in Bošković 1999). Pesetsky crucially relies on the assumption that multiple wh-fronting really means movement of more than one wh-phrase, not movement of all wh-phrases (in other words, movement of two wh-phrases is sufficient in several cases). By contrast, Bošković provides compelling arguments that multiple wh-fronting involves the stronger requirement that all wh-phrases be moved. As long as compelling arguments against Bošković's analysis are absent, Pesetsky's typology of complementizer requirements (and with it his analysis of intervention effects) is not as well-motivated as one would want.

This said, Pesetsky's work is very likely to prove a valuable source of information and theoretical sophistication for subsequent studies.

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