In spite of these criticisms, I consider this book an important contribution to our understanding of the syntax of non-finite domains, Case theory and control. For this reason, I strongly recommend it to any scholar interested in these topics.

REFERENCES

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels & Juan Uriagereka (eds.), *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*, 89–155. Cambridge, MA: MIT Press.
Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.
Chomsky, Noam & Howard Lasnik. 1993. The theory of principles and parameters. In Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld & Theo Vennemann (eds.), *Syntax: An international handbook of contemporary research* (Handbücher zur Sprach- und Kommunikationswissenschaft 9), vol. 1, 506–569. Berlin: Walter de Gruyter.
Hornstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30.1, 69–96.
Lightfoot, David. 1999. *The development of language: Acquisition, change, and evolution* (Blackwell/Maryland Lectures in Language and Cognition 1). Oxford: Blackwell.
Martin, Roger Andrew. 1996. *A Minimalist theory of PRO and control*. Ph.D. dissertation, University of Connecticut, Storrs.
Reuland, Eric. 1983. Governing *-ing*. *Linguistic Inquiry* 14.1, 101–136.
Uriagereka, Juan. 1995. Aspects of the syntax of clitic placement in Western Romance. *Linguistic Inquiry* 26.1, 79–123.

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Uli Sauerland & Hans-Martin Gärtner (eds.), *Interfaces + recursion = language? Chomsky's Minimalism and the view from syntax–semantics* (Studies in Generative Grammar **89**). Berlin: Mouton de Gruyter, 2007. Pp. viii + 289.

Reviewed by Ángel J. Gallego, Universitat Autònoma de Barcelona & Juan Uriagereka, University of Maryland, College Park

An often emphasized trait of Minimalism is its programmatic nature. If nothing else, this offers a broad perspective on language, forcing us to reflect on what is commonly taken for granted. It is this eclectic approach that at first sight defines the present volume, which is devoted to the study of the interaction between the computational system and the interfaces. Fortunately, the book is more than just that, although it takes a close reading to recognize this.

The volume starts with Chomsky's latest paper, 'Approaching UG from below' (AUB), written after but published prior to Chomsky's (2005) 'On Phases' (OP). The remainder of the book explores a wide range of topics, among them extraction, binding, and focus. Even though the different chapters are intended to embody the formula in the book title, it is hard

to find a truly unifying leitmotiv in this volume that justifies a rigorous interpretation of the equation (and at least one paper in the book questions the equation in the title). To comment on the different papers in as integrated a way as possible, we will present them against the background of AUB.

Chomsky's OP and AUB were written in close succession, which leaves little room for fresh discussion and might explain why in AUB, Chomsky essentially limits himself to sketching the tenets of the biolinguistics program, adding a few specific qualifications about phase theory. Perhaps the paper's most remarkable contribution is to emphasize that the Minimalist Program (MP) in a sense aims to 'deflate' Universal Grammar (UG). This may seem perplexing, but it is squarely within the program, if this theory about the faculty of language (FL) is taken, in classical fashion, to be 'rich and highly structurated to satisfy … empirical conditions' (3). Chomsky seeks to reduce these empirical conditions to 'principles of neural organization that may be even more deeply grounded in physical law' (3).

AUB phrases its reductionist twist by invoking two strategies that are commonly deployed in science: the top–down and bottom–up methods (see also Boeckx 2006: 95–98):

> Throughout the modern history of generative grammar, the problem of determining the character of FL has been approached 'from top down': How much must be attributed to UG to account for language acquisition? The MP seeks to approach the problem 'from bottom up': How little can be attributed to UG while still acounting for the variety of I-languages attained, relying on third factor principles? The two approaches should, of course, converge, and should interact in the course of pursuing a common goal. (4)

The bottom-up strategy is a hallmark of the MP, but it is hardly a new concern – even Chomsky (1975) had a chapter dedicated to 'Simplicity and the form of grammars', although it was admittedly motivated by acquisitional considerations. In turn, the top–down idea inherent in Minimalism that language crucially interfaces with external systems was already defended in Chomsky (1981). What is new and interesting in AUB is the possibility that different sorts of interface conditions emerge from or determine the two irreducible operations in grammar (now called Merge and Agree) – a theme that is echoed to various degrees throughout the volume.

In the MP, Merge captures recursion and, by means of what Chomsky calls edge features, 'yields a discrete infinity of structured expressions' (5). AUB discusses one particularly controversial property of Merge, namely labels or symbolic indications of projected phrasal types. Chomsky proposes to dispense with labels by invoking 'minimal search' metrics (9, 23; see OP for further discussion), but this leaves unresolved those situations where elements of equal complexity undergo so-called external Merge (i.e. traditional phrasal dependencies). Focusing on the subcase where two phrases form

small-clauselike structures, Chomsky speculates that either element must raise, as the resulting {XP, YP} structure is in some sense 'unstable'. This takes us into a vast empirical domain, ultimately related to the (still) ill-understood Extended Projection Principle (EPP), which is addressed in two of the papers in the book.

First, Artemis Alexiadou & Elena Anagnostopoulou re-examine previous work of theirs in 'The subject-in-situ generalization revisited', investigating transitive configurations where only one DP-argument stays within the v*P by Spell-Out. The authors refer to this situation as the subject-in-situ generalization (32). Building on work by Baker & Collins (2006), Alexiadou & Anagnostopoulou extend the data base with new data from Khoisan languages in which one of the two arguments of an applicative-like structure (within the lower VP) is forced to raise to the specifier of a functional head. They follow Baker & Collins (2006) in analyzing this functional head as 'inserted to provide a landing site for movement in constructions that otherwise violate a condition which … forces movement of either the direct object or the adpositional phrase out of the VP when both have structural Case' (44f.). The configurations discussed by Baker & Collins and Alexiadou & Anagnostopoulou are virtually identical: a small clause with two DPs, one of which requires externalization (i.e. it has to undergo movement). The facts call for a unified account, which is what Alexiadou & Anagnostopoulou argue for by taking the EPP to be 'a general condition regulating argument movement to v* or T (Generalized EPP)' (48), where EPP assignment to v* and T is 'subject to parametric variation' (50).

In 'Strategies of subject extraction', Luigi Rizzi & Ur Shlonsky argue that subjects are forced to raise to a 'freezing' (i.e. Case-assigning) position, and reformulate ECP-based approaches to subject extraction in terms of 'Criterial Freezing', a mechanism whereby '[a]n element moved to a position dedicated to some scope-discourse interpretive property, a criterial position, is frozen in place' (116). Criterial Freezing may be thought of as an LF variant of Spell-Out (which could be called Interpret), since it acts to clear 'an element from narrow syntax as soon as it has reached a position dedicated to scope-discourse semantics' (118). To capture the non-extractability of subjects, Rizzi & Shlonsky postulate a Subject Criterion related to SubjP, a projection whose semantic effect on subjects is to ground a given reported event on the subject's 'aboutness' (118). The paper then turns to strategies that languages resort to in order to extract subjects, such as resumption, expletive insertion, and clausal pied-piping. Rizzi & Shlonsky also discuss phenomena for which no universally agreed upon analysis exists within the MP: vacuous movement in local subject questions, the *que–qui* alternation, and dialectal variability with respect to *that*-trace effects.

These latter phenomena bear on the question of how morphology interacts with syntactic islandhood, and give rise to complex structures where locality conditions fail to be met. In 'Some remarks on locality conditions and

Minimalist grammars', Hans-Martin Gärtner & Jens Michaelis argue that locality constraints do not contribute to restricting the formal capacity of grammars as formalized in Stabler's (1997) framework of minimalist grammars. That is, this chapter demonstrates that locality conditions 'are not automatically restrictive where a formal notion of restrictiveness is applied' (161). Although Gärtner & Michaelis's conclusion hinges on the interesting controversy over whether derivations are 'crash-proof', it is admittedly based on the use of the formal notion 'E-language' and the corresponding weak generative capacity of the presupposed systems. To some extent this weakens the interesting and important point that constraints do not always constrain, inasmuch as the constructs generated by the FL need not be formulated in those terms (in fact Chomsky 1986 explicitly refused such a formulation, arguing that the notion 'well-formed formula' does not correspond to the notion 'acceptable sentence'). However, alternative formulations to the notions used in this paper have never been pursued as rigorously.

Reinforcing the leading role of phase heads, Chomsky argued in OP that φ-features (the so-called probes for structural Case) are generated in C and v*, and then 'downloaded' to T and V. In AUB, this hypothesis is strengthened. Attributing the idea to Marc Richards, Chomsky notes that inheritance follows once we combine two independent assumptions: (i) deletion of uninterpretable features is part of Transfer (to the interfaces); and (ii) only the complement domain of phase heads is transferred (given the Phase Impenetrability Condition). According to Chomsky, (φ-feature) probe-goal dependencies are also involved in semantic phenomena such as focus and binding. The final three papers in the present volume address various issues that arise due to cyclic conditions emerging from interface conditions.

Gereon Müller's contribution, 'Towards a relativized concept of cyclic linearization', discusses data where a given linear order established at a derivational stage S1 cannot be changed at a subsequent derivational stage S2 (e.g. Holmberg's Generalization, where the base V < O order cannot become O < V later on). As Müller points out, the basic idea behind Fox & Pesetsky's (2005) theory of cyclic linearization is that 'spell-out domains (phases) act as stages of the derivation where a photograph is taken, and the information provided by this photograph is filed and cannot be contradicted later in the derivation' (63). Müller addresses various problems for Fox & Pesetsky's system, and develops an analysis that gives a central role to the Phase Impenetrability Condition (linear order information is 'forgotten' as the derivation unfolds). He presupposes a distinction between feature-driven and other forms of Merge, and takes successive cyclicity to follow from a phase balance condition which requires goals (elements bearing unvalued features) to move to the edge so as to avoid a phase-level crash. While these assumptions are reasonable (and have been explored in the literature), Müller's system requires two additional assumptions: (i) linearization is relativized to phases, and conflicting ordering statements can arise across

phases; (ii) linearization itself is subject to conditions that depend on featural specifications.

In 'Flat binding: Binding without sequences', Uli Sauerland puzzles over the fact that binding transcends simple predication and proposes to go beyond standard, position-based systems of memory (such as the tape in a Turing machine). Instead, he argues for what he calls a flat binding theory that 'does not assume anything language-specific about human memory for binding: [r]ather than requiring a recursively structured sequence, it only assumes that memory holds a set of items' (199). Sauerland's theory combines two traditional insights, namely (i) that bound elements often have silent content, and (ii) that such elements are descriptive. Consequently, his theory takes bound elements to work on the model of incomplete definite descriptions, which require no extra storage for their semantics to work but pick out their referents from an unorganized set of items. While the paper's considerations on the form of memory concern a matter too poorly understood to be evaluated in biolinguistic terms, the paper's insights on the silent nature of ellipsis and the maximality of quantifiers make it relevant to the Minimalist enterprise. Sauerland's approach predicts several semantic generalizations, including the scarcity of generalized quantifiers and the fact that bindees in natural language are entities.

In the final paper of the volume, 'The grammar of focus interpretation', Sigrid Beck focuses on phenomena that require an alternative semantics treatment, such as focus, question and negative polarity items. For her, a decisive criterion in determining whether a sentence makes salient a set of alternative propositions is whether minimality effects can be observed, since '[e]valuation of alternatives cannot skip an intervening focus-sensitive operator' (256). After providing examples of intervention effects stemming from focus-sensitive operators and discussing the alternative semantics analysis of these constructions, Beck shows that lexical choice (in terms of morphological features and various meaning specifications) is not enough to determine the use of alternative semantics. Instead, it is the very fact that intervening elements cannot be skipped (which she shows for all of the constructions she discusses) that determines whether the alternative semantics interpretation is invoked. Beck concludes that all parts of grammar involve variation, and whether a given dependency is expressed in terms of alternative semantics depends on the syntax-semantics interface. Thus, this chapter argues that the equation in the title of the book may be oversimplified: recursion and the interfaces relate in interesting ways, and the relation may not be one of simple addition, with recursive procedures generating distinctive syntactic nuances.

All of the contributions in this book are interesting papers which have potentially far-reaching consequences and certainly provide a lot of food for thought. If a friendly criticism can be raised towards the project, it is that a more thorough editorial introduction would have helped contextualize the

individual contributions, if not within the program at large, at least with respect to each other. We have attempted to do so in this review, in the hope of providing a service to the interested reader. While the MP poses difficult and, as Chomsky often emphasizes, perhaps even premature questions, this volume clearly reflects both the excitement generated by the program and some of the many challenges ahead. For us, the Minimalist endeavor evokes Jorge Luis Borges's short story 'The aleph', in which we are introduced to a vertigo-inducing entity whose center is everywhere, while its circumference is nowhere. The present book makes worthwhile reading for anyone interested in foundational concerns and with little or no fear of alephs.

REFERENCES

Baker, Mark & Chris Collins. 2006. Linkers and the internal structure of vP. *Natural Language & Linguistic Theory* 24.2, 307–354.
Boeckx, Cedric. 2006. *Linguistic Minimalism: Origins, concepts, methods, and aims*. Oxford: Oxford University Press.
Chomsky, Noam. 1975. *The logical structure of linguistic theory*. New York: Plenum.
Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger.
Chomsky, Noam. 2005. On Phases. Ms., MIT. [Published 2008 in Robert Freidin, Carlos P. Otero & Maria Luisa Zubizarreta (eds.), *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, 133–166. Cambridge, MA: MIT Press.]
Fox, Danny & David Pesetsky. 2005. Cyclic linearization of syntactic structure. *Theoretical Linguistics* 31.1/2, 1–45.
Stabler, Edward P. 1997. Derivational Minimalism. In Christian Retoré (ed.), *Logical aspects of computational linguistics: First international conference, LACL '96, Nancy, France, September 1996, selected papers*, 68–95. Berlin: Springer.

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Virginia Yip & Stephen Matthews, *The bilingual child: Early development and language contact* (Cambridge Approaches to Language Contact). Cambridge: Cambridge University Press, 2007. Pp. xxiii + 295.

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The title of this volume promises an overview of early child bilingualism and its relation to language contact phenomena in general. Given the title and my