

Journal of Linguistics

<http://journals.cambridge.org/LIN>

Additional services for *Journal of Linguistics*:

Email alerts: [Click here](#)

Subscriptions: [Click here](#)

Commercial reprints: [Click here](#)

Terms of use : [Click here](#)



Cedric Boeckx, *Elementary syntactic structures: Prospects of a feature-free syntax* (Cambridge Studies in Linguistics 144). Cambridge: Cambridge University Press, 2015. Pp. xviii + 202.

Elliot Murphy

Journal of Linguistics / Volume 51 / Issue 03 / November 2015, pp 682 - 685
DOI: 10.1017/S0022226715000146, Published online: 24 March 2015

Link to this article: http://journals.cambridge.org/abstract_S0022226715000146

How to cite this article:

Elliot Murphy (2015). Journal of Linguistics, 51, pp 682-685 doi:10.1017/S0022226715000146

Request Permissions : [Click here](#)

- James, Carl. 1980. *Contrastive analysis*. London: Longman.
- Johansson, Stig. 2007. *Seeing through multilingual corpora: On the use of corpora in contrastive studies*. Amsterdam: John Benjamins.
- Krzyszowski, Tomasz P. 1990. *Contrasting languages: The scope of contrastive linguistics*. Berlin: Mouton de Gruyter.
- Marzo, Stefania, Kris Heylen & Gert de Sutter. 2012. Developments in corpus-based contrastive linguistics. In Stefania Marzo, Kris Heylen & Gert de Sutter (eds.), *Corpus studies in contrastive linguistics* (Benjamins Current Topics 43), 1–6. Amsterdam: John Benjamins.
- Talmy, Leonard. 2000. *Toward a cognitive semantics*, vol. I: *Concept structuring systems*. Cambridge, MA: The MIT Press.

Authors' addresses: School of Foreign Languages, Beihang University,
No.37 Xueyuan Road, Haidian District, 100191, Beijing, China
(Lyu)
siqily@buaa.edu.cn
(Wang)
eenawang@163.com

(Received 29 June 2015)

J. Linguistics 51 (2015). doi:10.1017/S0022226715000146
© Cambridge University Press 2015 First published online 24 March 2015

Cedric Boeckx, *Elementary syntactic structures: Prospects of a feature-free syntax* (Cambridge Studies in Linguistics 144). Cambridge: Cambridge University Press, 2015. Pp. xviii + 202.

Reviewed by ELLIOT MURPHY, University College London

Cedric Boeckx's *Elementary Syntactic Structures* argues for a 'Gestalt shift' in our perception of the syntax–lexicon relation. Its central claim is that the popular 'lego' model of syntax is misguided, and that syntax is in fact completely free of lexical influence. The book is terse and witty throughout, exposing the stipulative nature of some of the most enduring assumptions of generative linguistics, with Boeckx noting early on: 'Saying that it is *theP* that c-commands *manyP* (or [Determiner Phrase], [Quantifier Phrase]), and not the other way around, is not very different from saying that *the many men* is okay but *many the men* is not' (14). The book argues that Hornstein's (2001: 215) suggestion that replacing modules with particular features is an advance is incorrect, since linguistic modules 'live on disguised as features' (19), yielding a kind of massive modularity (in the form of the cartographic project) that many believe was left behind in the early 1990s.

These concerns become particularly vivid when we also acknowledge that the only domain in which minimalism has significantly departed from Government-and-Binding theory is in its emphasis on computational efficiency and 'third factors', or principles not specific to language. Chomsky (2014), for instance, reduces the Extended Projection Principle (EPP) and the Empty Category Principle (ECP) to applications of minimal computation, but so long as he employs only

computational efficiency as his primary explanatory tool, unification of linguistics with other biological sciences will be hindered, if only because neurobiological operations range outside the realm of maximal efficiency.

Perhaps more worrying for the biolinguist is Boeckx's contention that the lexicon (as it stands) is a barrier to seeing syntax as part of the brain, since it forces linguists to claim that syntax applies only to something so domain-specific as a lexicon. Features were useful in early minimalism when exploring and revealing properties of the human computational system such as Last Resort, but they nevertheless – like 'Broca's area' and 'binding domain' – fell short of the full story. Features in syntax today act like genes in the early Neo-Darwinian Modern Synthesis, being all-powerful, and leading to what Boeckx terms 'the selfish lexeme' to complement the selfish gene. This leads him to reject what he calls 'lexicocentrism' ('a remnant of philological thinking' (147)), advocating instead anti-lexicalist biolinguistics.

Minimalists often claim to be approaching syntax and Universal Grammar (UG) 'from below', while in reality they approach it from the lexicon, in this sense not departing significantly from the medieval grammarians. Boeckx puts the matter bluntly: 'It's high time we realize that if genes like FOXP2 can be a linguist's nightmare . . . features are a biolinguist's nightmare' (148). Minimalism suffers from 'featuritis'; that is, an obsession and over-reliance on features to do the work of linguistic computation and interfacing. Relatedly, how feature-bundles are constructed to begin with is almost never addressed by minimalists (although see Svenonius 2012). Rizzi's recent proposals regarding (minimal) heads as bundles of features present no way of distinguishing heads from other feature-bundles as phrases. There is no dividing line, it seems, and we are back in the Land of Arbitrariness and Stipulation.

Boeckx notes that an approach with any degree of biological adequacy must propose atomic pre-syntactic lexical items, with the lexicon being structureless. Merge must consequently be trigger-free, constrained only in virtue of it being embedded inside cognitive systems which impose their own demands. This approach is called 'Merge- α ', in the spirit of Government-and-Binding theory's Move- α . Lexical items are taken to be triplets, composed of an edge feature (permitting it to be merged with other objects) and two interface indices. Boeckx assumes that all inputs to structure building are 'flat' and atomic, something close to the usual candidates: roots of the kind Borer (2014) proposes. These units of narrow syntax are more appropriately termed 'lexical precursor cells', not being fully-fledged lexical items. Features and lexical items are related in ways similar to those of other biological components: descent with modification. This Merge- α framework is defended from a number of perspectives, for instance by reducing Svenonius's feature-bundling operation to 'nothing but Merge operating "in the (pre-syntactic) lexicon"' (139).

For Boeckx, all linguistic asymmetries, from the external/internal argument distinction to the binder-bindee relation, can be derived from phases – or, more accurately, from the 'stuff' of the interfaces which the basic symmetric Merge

operation transfers structures to. Phasal Spell-Out is thus ‘a rather natural’ symmetry-breaking process, since only the interior (complement) of the phase is transferred (40). This delivers to syntactic computation a phase-non-phase rhythm, which ‘self-organizes’, as Boeckx puts it, the otherwise unconstrained applications of Merge. Asymmetries become apparent only post-syntactically, post-Spell-Out.

These phasal commitments lead Boeckx into further detail: if phase head α labels the singleton β , it is an ‘intransitive’ phase; if δ labels the two-member set $\{\gamma, \alpha\}$, it is a ‘transitive’ phase. The traditional X^0 –XP distinction is thus effectively explained in terms of a phase boundary between the merged items α and β in the set $\{\alpha, \beta\}$, with α the head and β the phrasal complement. For Boeckx, syntax only contains this two-category system, being blind to notions such as NOUN and VERB, which arise through general cognitive effects on the convergence of the derivation at the interfaces.

This naturally leads Boeckx to abandon pre-defined phasal categories, which he justifies in the following ingenious way: he notes that an increase in phase boundaries proportional to the size of the derivation appears to be an instance of a third factor, specifically the Menzerath–Altmann law, stated below (y = constituent size; x = linguistic construct size; a, b, c = parameters):

$$y = a \bullet x^{-b} \bullet e^{-cx}$$

The consequence is that, for instance, the longer the sentence, the shorter the clauses – or the longer the derivation, the shorter (and more numerous) the phases. Contrary to orthodox minimalism, it strikes Boeckx as ‘wrong to believe that an increase in phase boundaries leads to greater computational complexity’ (87).

Boeckx also occasionally hints that phasal Spell-Out is the key notion required for some form of ‘linking hypothesis’ to be drawn up between syntax and neurobiology, to use the term of neurolinguist David Poeppel (Poeppel 2014). But Boeckx never attempts to flesh out what kind of connections he has in mind. The closest we find in the book leads to perhaps only metaphorical connections between the two domains (of cyclic Spell-Out and cortical oscillations): ‘Because the edge of the phase defines the portion of the derivation in which lexical items are accessible . . . we could think of the edge property of lexical items as an oscillating (i.e. cyclically expressed) property’ (89). Boeckx writes that ‘[g]iven that this is already a long book, I do not think it is the right place to go into the results’ of potential linguistics-neuroscience relations (148). But the main text is only 148 pages, 177 including the preface and appendices, so it could have benefited greatly from a discussion of how its author’s model of syntax deals with the neurobiological data on, for instance, syntactic composition operations (Bemis & Pylkkänen 2012, Pylkkänen, Bemis & Elorrieta 2014).

Moving beyond the derivation, Boeckx (expanding on ideas explored in Boeckx 2008) argues that grammar is ‘grounded in cognitive properties likely to be shared in some way with other species . . . that in the context of an unrestricted Merge machine took on new flavors’ (98). The book correspondingly contains

some novel proposals about the syntax–semantics interface. Lexicalisation yields what Boeckx calls, following Pietroski (forthcoming), ‘a form of uniformity to the units of semantic composition that is very reminiscent of what the edge feature achieves with lexical precursor cells’ (32). For instance, Boeckx argues that the emergence of phases yielded Neo-Davidsonian event representations, and so ‘philosophy recapitulated phylogeny’. Neo-Davidsonian representations ‘offer a near-perfect match between phase-based syntactic representations and semantic representations’ (103). The Complementiser domain corresponds to the point of existential closure, the ‘little verb’ (*v*) domain to internal/external thematic role assignment, and the ‘little preposition’ (*p*) domain to adjunct introduction. This shift from a Davidsonian to a Neo-Davidsonian mind ‘allowed for the same event to be represented from different perspectives’ (106) (see De Villiers 2014 for empirical work exploring phasal accounts of human event structure).

Boeckx’s model of the grammar has great explanatory power, with far-reaching consequences for neighbouring domains, but, he notes, it does not begin to touch on the looming shadow of pragmatics: ‘It is still mysterious how words like *book*, *river*, and *London* acquire . . . semantic richness’. Nevertheless, there is still hope for some light to be shed on the nature of our conceptual apparatus, since it may turn out that ‘some of the properties of human concepts can be derived from the fact that they have been lexicalized (i.e. endowed with an edge property)’ (109). With Boeckx’s syntax, Pietroski’s semantics and Poeppel’s neuroscience, those concerned with the study of language and cognition can begin to sketch out a form of biolinguistics worthy of the name.

REFERENCES

- Bemis, Douglas & Liina Pyykkänen. 2012. Basic linguistic composition recruits the left anterior temporal lobe and left angular gyrus during both listening and reading. *Cerebral Cortex* 23.8, 1859–1873.
- Boeckx, Cedric. 2008. *Bare syntax*. Oxford: Oxford University Press.
- Borer, Hagit. 2014. Derived nominals and the domain of content. *Lingua* 141, 71–96.
- Chomsky, Noam. 2014. Problems of projection: Extensions. Ms., MIT.
- De Villiers, Jill. 2014. What kind of concepts need language? *Language Sciences* 46, 100–114.
- Hornstein, Norbert. 2001. *Move! A Minimalist theory of construal*. Oxford: Blackwell.
- Pietroski, Paul. Forthcoming. *Conjoining meanings: Semantics without truth values*. Oxford: Oxford University Press.
- Poeppel, David. 2014. The neuroanatomic and neurophysiological infrastructure for speech and language. *Current Opinion in Neurobiology* 28C, 142–149.
- Pyykkänen, Liina, Douglas K. Bemis & Estibaliz Blanco Elorrieta. 2014. Building phrases in language production: An MEG study of simple composition. *Cognition* 133, 371–384.
- Svenonius, Peter. 2012 Merge, Project, and Bundle. Ms., University of Tromsø.

Author’s address: Division of Psychology and Language Sciences,
University College London, Chandler House, 26 Bedford Way,
Gower Street, London WC1E 6BT, UK
elliott.murphy.13@ucl.ac.uk

(Received 15 February 2015)