#### DERIVATIONS IN MINIMALISM

This pathbreaking study presents a new perspective on the role of derivation, the series of operations by which sentences are formed. Working within the Minimalist Program and focusing on English, the authors develop an original theory of generative syntax, providing illuminating new analyses of some central syntactic constructions. Two key questions are explored: first, can the Extended Projection Principle (EPP) be eliminated from Minimalist analysis without loss, and perhaps with a gain in empirical coverage; and second, is the construct 'A-chain' similarly eliminable? The authors argue that neither EPP nor the construct 'A-chain' is in fact a property of Universal Grammar, but rather their descriptive content can be deduced from independently motivated properties of lexical items, in accordance with overarching principles governing derivation. In investigating these questions, a range of new data is introduced, and existing data is re-analyzed, presenting a pioneering challenge to fundamental assumptions in syntactic theory.

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Derivations in Minimalism

## DERIVATIONS IN MINIMALISM

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This book is dedicated to Elaine, Molly and Sylvie; and to Hannah, Piper and Charlie; and to our students: past, present and future.

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Needless to say, all errors are ours, and nobody acknowledged here necessarily agrees with any of the hypotheses presented.

# Preface

 $\dots$  understanding always involves the notion of composition. This notion can enter in one of two ways. If the thing understood be composite, the understanding of it can be in reference to its factors, and to their ways of interweaving so as to form that total thing. This mode of comprehension makes evident why the thing is what it is. The second mode of understanding is to treat the thing as a unity, whether or not it is capable of analysis, and to obtain evidence as to its capacity for affecting its environment. The first mode may be called the internal understanding, and the second mode is the external understanding....The two modes are reciprocal; either presupposes the other. The first mode conceives the thing as an outcome, the second mode conceives it as a causal factor....It is true that nothing is finally understood until its reference to process has been made evident. (pp. 45–6)

Process and individuality require each other. In separation all meaning evaporates. The form of process...derives its character from the individuals involved, and the characters of the individuals can only be understood in terms of the process in which they are implicated. (p. 97)

The whole understanding of the world consists in the analysis of process in terms of the identities and diversities of the individuals involved. (p, 98)

Excerpted from Alfred North Whitehead, Modes of Thought.<sup>1</sup>

Chapters 2 and 3 of this book are based in part on a manuscript written and circulated in 1999 and presented at the 1999 LSA Summer Institute Workshop on Grammatical Functions, 'SPEC-ifying the GF "Subject": Eliminating A-chains and the EPP within a Derivational Model'. Chapters 1, 4 and 5 are, to a good approximation, entirely new, as are many aspects of Chapters 2 and 3.

We thank Stanley Dubinsky and William Davies for inviting us to the workshop and we thank Howard Lasnik for his valuable commentary on this paper.

It should be noted that in the same year a Minimalist paper with certain similarities to our Chapters 2 and 3, concerning A-chains and the EPP, was independently written and distributed: Castillo, Juan Carlos, John Drury and Kleanthes K. Grohmann, 1999, 'Merge Over Move and the Extended Projection Principle', in *University of Maryland Working Papers in Linguistics* 8:63–103.

1. 1938. New York: The Free Press (a division of MacMillan Publishing Co. Inc.).

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A revised version was then published as: Grohmann, Kleanthes K., John Drury and Juan Carlos Castillo, 2000, 'No More EPP', in *Proceedings of the 19th West Coast Conference on Formal Linguistics*, 153–166.

As further concerns the elimination of A-chains ('as we know them'), another recent analysis has appeared since the completion of Epstein and Seely (1999), that of Manzini and Roussou (2000), which regrettably we do not address here. Their analysis invokes quite different mechanisms than those proposed here. Earlier still (as recently pointed out to us by Norbert Hornstein, to whom we are indebted for doing so), Pauline Jacobson (1992) advanced an analysis of raising in a quite different framework in her 'Raising Without Movement'. More generally, there has existed for quite some time an unclarity, and we think interesting debate, both within and between frameworks, in both syntax and semantics (which we cannot comprehensively review here) concerning the proper treatment of the categorial status, internal structure and derivation of raising infinitives.

In this regard, it is important to note that at the very inception of GB theory (and the postulation of A-chains and the EPP), Chomsky (1981) explicitly addressed the broad issues at hand and explicated the nature of their importance in attempting to explain aspects of human knowledge of language, and its growth in the individual. As opposed to the GB-theoretic analyses he proposes, Chomsky (1981:92) considers an alternative:

Consider...a different theory, call it "Theory II," which generates different s-Structures... lacking empty categories – traces or PRO. One might imagine other variants of Theory II in which some of the structures with gaps...have trace and others do not (perhaps movementto-Comp might be distinguished from NP-movement in this way, for example). Theory II is rather different in its properties from Theory I. For example, Theory II does not observe the projection principle; furthermore, it assigns  $\theta$ -roles to arguments that are not in  $\theta$ -positions by devices quite different from those that are employed to relate operators such as wh-phrases to the variables they bind...Furthermore, it does not relate the properties of interpreted gaps to those of overt anaphors and pronouns with disjoint reference.... Theor[y] 1 and [Theory] II appear, at least, to be rather different in their conceptual and empirical properties; not so much in their coverage of data – presumably either can be developed in such a way as to deal in some manner with phenomena that are at all well-understood – but in their frameworks of unifying principles and assumptions about the nature of UG.

Portions of the following material were also presented at: the meeting of the Michigan Linguistics Society held at Eastern Michigan University (2001); Wayne State

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University Department of Linguistics colloquium (2000); the LOT Summer school and the 1st Tools in Linguistic Theory Conference (TiLT), both held at the University of Utrecht (2001); and the LSA Summer Institute held at Michigan State University (2003). We thank the organizers and audiences there for their interest in and comments on our work.

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#### Abbreviations

- CT Chomsky, Noam. 1995. 'Categories and transformations', in *The Mini*malist Program, Cambridge, MA: MIT Press.
- MI Chomsky, Noam. 2000. 'Minimalist inquiries: the framework', in Roger Martin, David Michaels, and Juan Uriagereka (eds.), *Step by step: essays on minimalist syntax in honor of Howard Lasnik*, Cambridge, MA: MIT Press.
- DBP Chomsky, Noam. 2001a. 'Derivation by phase', in Michael Kenstowicz (ed.), *Ken Hale: a life in language*, Cambridge, MA: MIT Press.
- BEA Chomsky, Noam. 2001b. 'Beyond Explanatory Adequacy', ms., MIT. A revised version to appear in Adriana Belletti (ed.), *Structures and beyond: current issues in the theory of language*, Oxford: Oxford University Press.
- DASR Epstein, Samuel D., Erich Groat, Ruriko Kawashima, and Hisatsugu Kitahara. 1998. A derivational approach to syntactic relations, Oxford: Oxford University Press.