A Perspective on the Dynamics of Minimalist Syntax

A Review of Uriagereka (2002) *Derivations*

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Uriagereka's (U, henceforth) recent book, *Derivations: Exploring the dynamics of syntax* (Routledge), is a collection of his papers (some co-authored) on minimalist syntax, written from the mid-1990s to 2002. The articles in this book, which have been making a substantial contribution to the development of the minimalist investigations, are all illuminating, rich, profound (both conceptually and empirically), deliberate, and sometimes excitingly ambitious.

The guiding idea throughout the entire book is how much we can say about the nature of the human language faculty in purely derivational terms. U deals not only with syntagmatic (horizontal) derivations, but also paradigmatic (vertical) derivations. In the latter, U explores syntactic (derivational) accounts of properties which are usually assumed to be purely paradigmatic. For example, some apparently fundamental semantic properties (so assumed generally in the field) are actually the consequence of syntactic derivations. This is a very strong claim, but because we know very little about the ontology of various “semantic” properties of human language, it is a reasonable strategy to try to capture some aspects of “meaning” in terms of purely syntactic tools that are available and familiar in the field.
Another trait of this book is that U is concerned with making some reasonable connections between the language internal system and the performance systems: an obvious sign of this attitude is his occasional reference to contextual information (e.g., Section 6 in Ch 11, Section 6 in Ch 8). In the minimalist approach, the roles and properties of the interfaces (LF and PF) are central issues, but we know very little about the exact nature of the performance systems as well as those of the interfaces (especially on the LF side). Hence, “progress in understanding them goes hand in hand with progress in discovering the language systems that interact with them” (Chomsky 2000: 98). It is therefore very important to take into consideration the interaction between what we propose in syntax and what we can assume about the specific properties of the performance systems. This is what U does in many places in the articles in this book.

The book is divided into three parts. The first is Chs 1 - 2. The second is his Part I (Chs 3 - 8), and the third is his Part II (Chs 9 - 15). In what follows, I will give brief summaries and comments on these parts.

1. A good overview of the minimalist perspective: Chapters 1 - 2

Ch 1 is written as the general introduction to the entire book, giving us an overall flowchart. Since the onset of generative linguistics, both linguistic representations and derivations have been performing significant roles. As a dynamic system of the
human mind/brain, it is natural to assume that the faculty of language (FL) involves derivations. The most obvious instance is the recursive mechanism that builds linguistic expressions (e.g., sentences) out of available ingredients (e.g., words/morphemes). Were it not for such a mechanism, FL would be a simple list of words/morphemes, or knowledge of language would be a static stock of sentences/expressions that you have experienced before, failing to account for the creative aspect of language.

The mechanism in turn must be properly constrained, because the result of linguistic structure building is not chaotic or random, but rather highly systematic and restricted. There are two ways to constrain the system. One is to put some well-formedness conditions on the result (i.e., representation) at some appropriate timing (or levels), trying to make the derivation procedure itself as free as possible (e.g., Affect $\alpha$). The other way is to put conditions on the derivation procedure itself, eliminating possibilities of undesirable derivational steps, and hence only legitimate linguistic expressions survive. In the classic LGB model, for instance, Subjacency is formulated as a condition on derivation (i.e., a movement crossing more than one boundary at one step is prohibited), while the ECP is a condition on representation (i.e., a trace must be properly governed at the relevant level(s) of linguistic representation), both being intended to account for locality effects. The role of derivation is obviously proliferating more in minimalism than in its precursor LGB model.
(although whether it is a proper move is an empirical question), but standard minimalism still retains both mechanisms. It is, however, never a priori obvious what properties should be dealt with derivationally and what representationally. U's papers in this book are all attempts to pursue the derivation view as far as possible and to investigate what this approach reveals about the nature of the human FL. If many linguistic properties can be deduced from the nature of cyclic derivation itself, it is conceptually desirable, to the extent that the recursive dynamic system is indispensable in the human FL anyway.

In this respect, an important preliminary step is to seriously consider the differences between the representational and the derivational systems in a technical sense. This is what U does in Section 2 of Ch 1: five differences between derivational and representational systems are summarized.

Sections 3 - 7 of Ch 1 place the import of each article of this book in a broad perspective of the strongly derivational approach. Hence, the relevant part(s) of Sections 3 - 7 of Ch 1 gives a useful bird-eye view. The reader can appreciate that all the articles are significantly related to each other in a deep and abstract sense, although the empirical facts U deals with are as large and diverse (at least superficially) as covering CED effects, wh-islands, LF islands, strong/weak quantifier, obviation and local anaphora, there-construction, "possessive" syntax, small clauses, rigidity of names, and so on.
In Ch 2, Section 1 provides us with a concise summary (presented from a derivational viewpoint) of Chomsky's (1995) monumental book *The Minimalist Program*. The reader gets a very useful picture of what the minimalist program (MP) and GB theories share, especially conceptually, and how they are distinct in crucial respects.

When there is a large shift in theoretical perspectives in a field, it is always healthy and necessary to ask what motivates the shift and whether the move is reasonable. Lappin, Levine, and Johnson (2000) (LLJ) in their NLLT article raise this very question and conclude that the shift to minimalism from its precursor, the LGB model, is not reasonably motivated and thus unscientific. Sections 2 - 3 of Ch 2 are U's reply to LLJ's criticism. It is often the case that serious debates over an issue give us a better understanding of it than a simple introduction would. The debate on NLLT gives us such an opportunity. Via the discussions on concrete issues, the reader can see several essences of the minimalist perspective. By presenting a specific minimalist analysis of specific data, U convincingly shows that it is too hasty to conclude that MP is ungrounded in empirical considerations. Rather, there have already been significant empirical contributions to MP.

2. **Horizontal Perspective: Chapters 3 - 8**

In the chapters in Part I, derivation is understood in the standard sense, that is, horizontal or syntagmatic derivation. The central
idea in Part I is the Multiple Spell-Out (MSO) system, the essence of which has been adopted in the most recent idea of "phase" (Chomsky 2000, 2001a, 2001b).

The MSO system is introduced in Ch 3 (which was written in the mid-1990s and published in 1999). The main idea here is that a command unit (CU, conceptually equivalent to Chomsky's phase) is spelled out in a unit by unit manner, and thus a syntactic interaction across CUs is basically impossible, deducing the effect of phase impenetrability (which is simply stipulated in Chomsky's original works). This gives a natural account of familiar CED effects. For instance, given that a specifier is a CU, the extraction out of a specifier (a "subject") is not possible because it has been spelled out and thus no syntactic access into the specifier is possible.

The primary motivation for the MSO system is the desire to deduce Kayne's (1994) Linear Correspondence Axiom (LCA). Essentially, command is the only deduced structural relation that holds of heads which are structured within CUs. If the LCA attempts a mapping from already existing relations among heads, only command could be relevant without any additional cost. Therefore the base step of LCA [i.e., $\alpha$ precedes $\beta$ iff $\alpha$ commands $\beta$] follows from piggy-backing on derivational history, given dynamic economy. As for the inductive step of LCA [i.e., if $\gamma$ precedes $\beta$ and $\gamma$ dominates $\alpha$, then $\alpha$ precedes $\beta$], U argues that it "is a result of applying Spell-out multiply, each time according to the base step" (p.152).
Given the assumption that CU’s are the only syntactically available units accessible to syntactic operations, various other consequences follow, some of which are trivially good news in minimalism (e.g., CED effects are deduced). Others are more challenging which gives us a series of new research topics. The rest of Ch 3, and all the other papers in Part I (Chs 3 - 8) are an exploration of these consequences from the MSO system. Ch 4 provides the technical details of the system in a more elaborate fashion, and also discusses a minimalist account of the syntactic interaction across CUs: sideward movement which is sometimes possible as in parasitic gap constructions. In Ch 5, starting with a problematic paradigm from Basque syntactic studies (restrictions on question formation), U explores consequences of the MSO system, trying to show that the “analysis confirms the view of the derivational system” and “also confirms the central role of morphological processes within the system at large” (p.114).

An important aspect of the MSO system is that grammatical agreement plays a crucial role. Namely, separately spelled-out CUs must be put together at some relevant point in order for the performance system to handle them. U suggests that agreement functions as the “glue” to put them together. This gives a possible answer to a fundamental question of why language has purely morphological agreement.

Ch 6 tries to give a derivational account of quantifier interpretation. Strong quantifiers like every are binary
determiners, taking two arguments; one is the complement NP in the ordinary sense and the other is the predicate in which the DP first appears (predicate-internal hypothesis) and moves to the specifier of the predicate. Advancing the idea that syntactic projection is a relative notion, U proposes that D “reprojects” and changes the label so that the predicate is now the specifier of the DP. This is surely a reasonable possibility available in minimalism (but not in the standard GB model).

Chs 7 - 8 present more challenging and very ambitious proposals: In Ch 7, U suggests that a long-distance wh-movement is an instance of a single clause wh-movement plus subsequent (recursive) processes of tucking in the lexical items underneath the original Comp, building up a multi-clausal structure. The idea was originally proposed by Kroch and Joshi (1985), which U expands in minimalist terms.

In Ch 8, U discusses obviation as an emergent property “which arises dynamically from various systemic interactions” (p.150). The leading idea entertained here is that the local obviation (i.e., Condition (B) effect) is due to the difference in Case-marking: that is, accusative-marked FF-bags and nominative marked FF-bags are grammatically distinct, and therefore “the most transparent mapping to their semantics is also in terms of semantic distinctness” (p.166): Transparency Condition. The key assumption is that the system is sensitive only to (sets of) features; a fundamental minimalist proposal. The analysis relies on crucial use
of purely morphological properties of Case, giving a possible answer to a fundamental question of why language has Case.

3. **Vertical Perspective: Chapters 9 -15**

In the chapters in Part II, derivation is understood to be vertical. U discusses the thesis that some apparently complex lexical items are best seen as the reflex of some standard syntax, “all analyzed in terms of roughly as “possessive” syntax” (p.18). The core idea, which is based on Kayne (1993) and Szabolcsi (1981 and 1983), is that various types of complex interpretations arise, not because they are lexically specified, but because they undergo (or do not undergo) specific syntactic derivations.

Ch 9 claims that the difference between the Integral Interpretation (II) and the Standard Interpretation (SI) of the *there* construction can be explained syntactically. As a consequence, the analysis convincingly leads to the conclusion that the definiteness effect (DE) in *there*-constructions has two different sources. The DE observed for II readings “should be traced to the predicate status of the NP in associate position” (p.185), while in SI *there*-constructions, “the associate is never a predicate and so the DE in these constructions must have a different source” (p.185).

Ch 10 sketches “the main ideas concerning the syntax of possession, as well as what it may entail for the larger conceptual concerns” (p.21), trying to show that possession is a kind of syntax, with well-behaved properties. Possessor/possessed,
whole/part, and form/substance relations, for instance, are all specific realizations of the same (more fundamental) pseudo-thematic structural relation, expressed by Kayne/Szabolisci’s syntax.

Ch 11 proposes that “the fundamental difference between “stage” and “individual” level predicates is not lexico-semantic” but that “these differences are best expressed by way of purely syntactic devices” (p.212). There are no individual-level predicates, but rather predicates which “are about” their morphologically designated subject (= Kuroda’s (1972) categorical judgment). There are no stage-level predicates, either, but rather predicates which are about the event they introduce (= Kuroda’s thetic judgment). A strong claim here about the syntax/semantics interaction is that these two semantic properties follow from, and do not derive, the syntactic mapping; syntax induces semantic consequence (NOT the other way round).

Ch 12 tries “to show that rigidity is a defining property of names, and thus a linguistic phenomenon” (p.252). The central claim here is that a (proper) name is the ultimate, unsplit atom, and a mode classifies a name and turns it into a noun. This "allows the name space (otherwise rigid) to act as a flexible tool for describing something or other" (p.246). This analysis naturally explains, for instance, the counterfactual use of names as in if Antony were Brutus, .... If the names are completely rigid, such counterfactual expressions would simply lead to absurdity. Given,
however, that a name can be a syntactically complex object with a
mode component, syntax gives an appropriate form of the conditional
clause above which can be interpreted as “if (some) modes of Antony
had been (some) modes of Brutus, ...,” which makes sense. U further
argues that other predicative properties of names (e.g., a
Napoleon) also receive a natural account if all names are actually
predicates derived by the appropriate syntax of the sort proposed
by Kayne/Szabolisci.

Ch 13 discusses proposition in terms of “possessive” syntax.
There are traditionally two views about a sentence such as Galileo
believed that: (i) the paratactic view in which that is
cataphorically related to the separate sentence and (ii) the
hypotactic view in which there is a full-fledged complement clause.
U claims that “both types of dependencies are realized in UG”
(p.253). The analysis is another extension of Kayne/Szabolsci's
“possessive” syntax.

The last two chapters (Chs 14-15) are more ambitious projects.
Advancing the idea that some paradigmatic regularities can actually
be derivational, “it is explicitly proposed that many familiar
paradigmatic cuts on various standard categories may be analyzed in
roughly possessive guise” (p.25). The essence of the proposal in Ch
14 is that adjunction is a more basic syntactic relation than Merge,
and correspondingly, predication is a more elementary semantic
notion than θ-role assignment. The adjunct system is strictly
concatenative and thus essentially flat, while the thematic system
brings in dimensionality, which is the source of the familiar (nontrivial) asymmetries between the two systems. These claims “bear on many current topics, including the nature of the substantive and grammatical sub-systems of the lexicon, as well as the place and overall nature of lexico-conceptual notions within the system at large” (p.266).

In Ch 15, U explores an intriguing idea that the human ability to handle paradigmatic properties of language has the same source as the human ability of “warping” across dimensions. For instance, we can handle mathematical relations between two-dimensional objects and three-dimensional objects because we have innate cognitive ability to warp from one dimension to another (by adding or subtracting the relevant axis, for instance). Likewise, we can handle, for instance, the familiar Vendler-type aspectual classification of predicate types, because the same innate cognitive ability allows us to warp from one dimension (e.g., activity predicate) to another dimension (e.g., accomplishment predicate) by adding or subtracting the relevant argument to delimit the event. This chapter explores various other topics related to this “warp” idea, covering several other types of familiar paradigmatic cuts, as well as discussions on modularity and learnability. Most of the discussion in this chapter is open-ended, and thus leaves substantial room for further interesting investigations.
Summary

As the very nature of an on-going research program, conceptual issues are always at stake, as well as various sorts of empirical problems in any specific minimalist study. In this respect, U’s book is an exemplar of serious investigations of minimalist syntax. Anyone who is working on minimalist syntax may find it useful, relevant, and illuminating to his/her own research project, because of its large empirical coverage, the depth of specific analyses, and careful and sincere handling of even seriously problematic cases in the proposed analysis, with insightful discussions on conceptual issues.

Notes

*I thank Hideki Maki, Paul Stapleton, Kimihiro Ohno for useful comments and suggestions on an earlier draft of this work. Any errors are mine own.

1. For expository conveniences, I use “U” as a cover term for Uriagereka and his co-author(s).

2. The interested reader is also invited to reading LLJ’s articles and other researchers’ responses to them (on NLLT), for a better understanding of the debate.

References
