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REVIEW ARTICLE

Representing Minimalism

GEOFFREY POOLE

University of Newcastle

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Juan Uriagereka, *Rhyme and reason*. Cambridge, MA: MIT Press, 1998. Pp. xliii + 669.

1. Introduction

In this wide-ranging and ambitious volume, Juan Uriagereka sets as his goal both a conceptual and a technical explication of Chomsky's Minimalist Program as well as the siting of it within the broader context of scientific inquiry into the nature of human beings and the natural world. Reintroducing an old rhetorical device into modern scientific discourse, the book is framed as a series of dialogues over six days between a Chomskyan linguist and a sceptical interlocutor called 'The Other', a 'hard' scientist whose knowledge encompasses not only contemporary physics and biology, but also mathematics and philosophy.

The temptation to frame a review using the same rhetorical device is considerable. It is not much of an exaggeration to say that Uriagereka has attempted to create a book about everything for anyone, and has attempted to do so in a way that is unusual, clever and interesting. That he is largely successful in this enterprise is truly remarkable. On the other hand, there is also the lingering feeling that it is fractionally too clever, and fractionally too ambitious, with the result that what could have easily been a classic of modern scientific writing does not QUITE fulfill its potential.

2. The argument

The first day's discussion, entitled 'The Minimalist viewpoint', constitutes an introduction both to general aspects of Chomskyan linguistics and to the more ambitious issues which Uriagereka wants to address: the evolution of language and its relationship to other phenomena in the natural world. The discussion begins quite properly with the central question within Chomskyan linguistics: language acquisition. As The Linguist puts it: 'The fact that children succeed in acquiring a human language, in a pretty uniform way, at an incredibly fast pace, and with hardly any exposure to language, is one of the most serious matters that a scientific study of language has to address'

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(1). The Chomskyan picture of language acquisition is then developed, including a recapitulation of standard 'poverty of the stimulus' arguments (*wh*-island/Subjacency effects, the structure dependence of subject-aux inversion) against the usual 'common sense' views of the acquisition process (simple induction, explicit teaching). The Language Acquisition Device (LAD) as a species-specific system of fixed principles and bi-/multi-valued parameters is also motivated. All of this material will be familiar to any student of Chomsky's less technical work and discussion (e.g., Chomsky 1988, 1995a).

However, as the day's conversation progresses, it becomes increasingly dominated by the more speculative questions which reoccur throughout the book. The first question concerns the evolution of language. In particular, should the emergence of language in *homo sapiens* be seen as an evolutionary adaptation with the (hypothesized) benefits of a linguistic capacity coming to be favored by natural selection? Or is it better understood as an evolutionary exaptation, in which humans' linguistic capacity was not itself directly selected for, but instead emerged as a consequence of some other evolutionarily selected property? The second more speculative issue concerns the connection between linguistic capacities and other phenomena of the natural world. As Chomsky himself has noted on several occasions (e.g., 1996: 13), the seeming elegance and simplicity of the LAD (and of the linguistic system more generally) seems to have more in common with what is found in the inorganic world, as opposed to the organic. Over the course of the first day, various ways are discussed in which order emerges in nature. The Other in particular speculates about the potential relevance of the theory of complex systems to the emergence of elegant order from the 'mess' of the primary linguistic data.

Day 2, 'Notation and reality', begins to discuss the specific architecture of the language faculty under Minimalist assumptions. The focus in this day's discussion is on the conditions imposed by the interface levels PF and LF. The guiding Minimalist intuition is that the computational system represents an optimal satisfaction of the conditions which hold of these two interfaces. One of the central empirical issues is therefore which features are relevant for the PF and the LF interfaces, as well as whether these features are interpretable or uninterpretable at the relevant interface. In particular there is some interesting discussion of how one could empirically determine which features are relevant for LF, the interface for which evidence is of necessity more sketchy and indirect. Various key technical terms relating to the satisfaction of interface conditions, such as CRASHING and CONVERGING, are introduced. The idea is presented that the driving force behind an instance of movement (which reappears briefly in Day 3 and is discussed at length in Day 4) is the elimination of a previously introduced 'strong' feature.

As might be expected from the title of the chapter, a large portion of the 'digressions' here concerns the relationship between aspects of the linguistic

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system and 'reality', but in this case seen from a more traditional philosophy of language perspective. In particular, The Other raises various standard puzzles regarding the reference of names and definite descriptions, as well as the general question of whether words themselves refer to things in the world. The Linguist, echoing Chomsky's responses to questions of this sort (e.g., Chomsky 1993, 1995a) makes it clear that, while people may use words to refer to things in the world, it is not the words themselves which refer.

Toward the end of the chapter, as the discussion again takes on a more speculative character, various alternatives to the mechanics of the computational system are considered. Throughout the chapter, The Linguist has emphasized that Minimalist conception of the computational system is a strongly derivational one. At this point, however, several alternatives are discussed, including representational (i.e., non-derivational) approaches in the spirit of Brody (1995) and radical filtering approaches such as Optimality Theory.

In the third chapter/day, 'Phrases and Linearity', the book begins to concern itself almost exclusively with technical questions as the discussion turns to those conditions on the computational system which are imposed by 'virtual' conceptual necessity. First, the computational system must possess a way of concatenating symbols and constructing phrase markers. Hence the first item on the agenda is Merge, and the way in which the labels of syntactic objects are constructed. The discussion then moves on to the way in which syntactic objects are related, and the fundamental notion of COMMAND is introduced.

(1) *Definition of command*
Where α and β are accessible to C_{HL}, α **commands** β if and only if (a) α does not dominate β, and (b) the first category dominating a also dominates β.

As Uriagereka points out (fn. 20), this definition is both old and slightly new simultaneously. It is essentially the traditional 'first branching node' definition of c-command, but updated for the Minimalist Program approach to structure-building. Uriagereka therefore uses the neutral term 'command' for this fundamental syntactic relation.

The central nature of command is illustrated immediately as the dialogue segues into a discussion of linear precedence. Since humans do not possess telepathy, nor can we articulate in parallel, another condition imposed on Human is the necessity of mapping the products of the syntactic computation into a single linear sequence. In order to accomplish this, The Linguist introduces a version of Kayne's (1994) LINEAR CORRESPONDENCE AXIOM (LCA).

(2) *Linear Correspondence Axiom*
A category α precedes a category β if and only if (a) α asymmetrically commands β, or (b) γ precedes β and γ dominates α.

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The ensuing discussion includes various predictions and consequences of the LCA. In this context, movement reappears as a way of obtaining the correct linear order for head-final languages like Japanese and verb-initial languages like Irish. However, it is not the case that movement is completely unconstrained. The principle of PROCRASTINATE, in which overt movement is more costly than covert movement, is introduced.

The conclusion of the third day's discussion concerns various additional issues regarding linearization and their implications. Recapitulating discussion in Kayne (1994), The Other observes that the LCA does not produce a linear ordering in the case where two elements are in a mutual command relationship. This leads to, among other things, the introduction of the notion 'trace' as a potential way of solving this problem. The discussion concludes with an interesting suggestion from The Other's that multiple Spell-Out could be a way of deducing the induction step of the LCA (subpart (b) of (2)).

Day 4, 'Cyclic transformations', examines movement operations in more detail. After a short digression about ellipsis and interpretative parallelism more generally, The Linguist begins the discussion by suggesting that it is formal features themselves, rather than lexical items themselves, which are the target of movement. Prior to Spell-Out, however, the formal features, together with the phonological features and semantic features, are bound up in the 'atom' of the lexical item. Therefore, targeting the features of a lexical item prior to Spell-Out will result in the other features being pied-piped, since they are not at that stage separate objects. After Spell-Out splits off the phonetic features, it is possible to covertly move just the matrix of formal features.

As may be inferred from the title, much of the chapter focuses on the apparently cyclic nature of transformational operations. The participants note that cyclicity would seem to be a requirement that both Merge and Move 'extend' the target structure, which The Other, taking an approach in the spirit of Epstein (in press), suggests might follow from the fact that lowering would 'alter' the derivational history as represented by the labels of the syntactic objects.[1] However, The Linguist observes that all instances of Merge might not be cyclic. In particular, The Linguist makes an interesting

[1] As a note in passing, it is unfortunate that this rather complicated segment of the discussion should contain one of the few fairly serious editing/typographical errors. What would have been example (13) appears to have been deleted. After example (12), the next example is numbered (14), and following (14) there is an example which is numbered (13), but which is clearly not the deleted example. The references in the text appear to be correct, however, with the only problem therefore being differentiating which references to 'example (13)' refer to the deleted example and which to the example which is labelled (13). This is not as difficult to do as it might have been, however, and the discussion is ultimately comprehensible.

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suggestion, following Lebeaux (1988) and contra Chomsky (1995b), that a classic reconstruction paradox might be explained by appealing to 'late' (i.e., non-cyclic) Merge. Consider (3):

(3) (a) Which portrait that Rivera$_i$ painted does he$_{i/j}$ like the most?
(Uriagereka's (21), ch. 4)
(b) Which portrait of Rivera$_i$ does he$_{*i/j}$ like the most?

If the adjunct clause *that Rivera painted* may be introduced non-cyclically after *wh*-movement has taken place, unlike the argument PP *of Rivera*, there would be no copy of *Rivera* in the base-position to trigger a Binding Theory violation. This section of the chapter concludes with discussion regarding the set-theoretic implementation of XP-adjunction, and X^0-adjunction is also introduced and discussed.

Moving into the domain of constraints on transformational operations, The Linguist observes that there are cyclic (in the non-technical sense) aspects to this as well, and this observation serves to formally introduce issues surrounding Economy of Derivation and the nature of candidate sets. The Linguist presents Chomsky's (1995b: chapter 4) analysis of the contrast in (4) and introduces the notion of a 'derivational horizon' as a (partial) way of mitigating potential problems with computational complexity.

(4) (a) There seems to be a man here.
(b) *There seems a man to be here.

The reappearance of the notion of Procrastinate leads into an extensive discussion of the mechanics of Case checking. The chapter concludes with various open issues which The Linguist and The Other debate with some vehemence, including the possibility of binary Move as well as binary Merge and the possibility of multiple Spell-Outs as a way of accounting for stylistic processes.

Day 5, 'Chains and their checking domain', continues the discussion of economy-flavored constraints on movement. Much of this chapter in particular will be familiar from either Chomsky (1995b) or various secondary source material such as Marantz (1995) or Collins (1997). There are essentially three conditions on chains which form the bulk of the day's discussion: The Minimal Link Condition, the Condition on Chain Uniformity and the Last Resort Condition.[2]

(5) *Minimal Link Condition*
F can raise to target K only if there is no legitimate operation Move F′ targeting K, where F′ is closer to K.

[2] The requisite ancillary definitions, such as (equi-)distance, minimal domain, etc., are also provided.

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(6) *Condition on Chain Uniformity*
The formal/categorial information content of chain elements τ_j and τ_k is identical.

(7) *Last Resort Condition*
Where α is a sublabel of a head β if and only if a is a feature of β or a head adjoined to β, F raises to target K only if F enters into a checking relation with a sublabel of K.

Following Chomsky (1995b), these conditions are taken to have a different ontological status from Procrastinate (discussed on the previous days) in that they are derivational conditions rather than constituting an optimality metric. That is to say, violation of these principles leads to a cancelled derivation, rather than the principles being violable if necessary for convergence. An interesting recurrent speculation, initially voiced by The Other (362) and ultimately adopted by The Linguist (481) is that the function of these derivational conditions is to reduce the derivational horizon and therefore computational complexity.

In addition to the constraints on chain formation, the conversation also contains a more explicit discussion of the mechanics of checking and the nature of features. Features which are interpretable at an interface level are always accessible to the computational system and are implicated in successive-cyclic movement. Uninterpretable features, on the other hand, are erased when checked and therefore only trigger movement once. The chapter concludes with an unusual case of checking: relations between expletive-associate pairs, and it is argued that only whole chains are visible to the computational system.

During Day 6, 'Words and their internal domains', the discussion moves from the level of the syntax into the level of the word, and presents the functioning of the computational system at that level. The discussion begins with the syntactic reflexes of argument structure, beginning with different types of intransitive verbs. The Linguist argues for the existence of unaccusative verbs, which leads into an extensive recapitulation of Hale & Keyser's (1993) discussion of word-level syntax, and their claim that certain verbs (such as *saddle*) involve incorporation of an internal argument NP into an abstract verbal element. This raises the question of whether the non-existence of certain verbs can be predicted by their syntax, and it is suggested that 'subject-incorporation' verbs, such as (8a) or more abstractly (8b) are just such a class, as they would involve downward movement of the subject.

(8) (a) *Canadian-hunt seals
(b) *Jokes wug people.
(where *x wugs y* is intended to mean *x causes that y smiles*)

However, The Linguist argues against accounting for word-formation facts by appealing to syntactic principles. Unlike the syntax, word formation processes are not productive (*musical* but not **artal*), nor are they systematic

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(the precise meaning of the *-able* suffix can vary depending on the context, but plural *-s* never does), nor are they in many cases transparently related to their 'parts'. (The Linguist discusses the old chestnut *kill* vs. *cause to die*.) The strongest relationship between the syntax and word formation that The Linguist is willing to commit himself to is subpart (b) of the *Wording Law*.

(9) *Wording Law*
[Word Interpretation] recognizes α as a word if and only if
(a) α has phonological content and obeys the standard requirements on phonological words; and
(b) there is a sublabel β of α such that for all x, x a sublabel of α, x's trace is lexically related to β's trace.

(9b) has the effect of defining a 'pivot' (the term is Uriagereka's) around which a legitimate 'word' can be syntactically created. (Although speaking of Word Interpretation as a unitary module or operation is a little odd if it is to apply at both the PF and LF interfaces.) In order to explain how the child can come to know the mostly idiosyncratic elements of his/her language, various learning strategies are discussed, including the Subcase Principle and mutual exclusivity.

Toward the end of the chapter, the book comes full circle as questions of the evolution of language reemerge out of the discussion of learning strategies. In this way, the issues discussed in Day 1 are reexamined in the light of the subsequent, more technical discussion from the later chapters. Bringing in ideas from Lerdahl & Jackendoff (1983) and Jackendoff (1994), The Other speculates (467 ff.) that the ability to linearly express hierarchical structure emerged as an exaptation from a mental 'grammar' for music comprehension. However, as The Linguist points out, it is not completely clear how selectional pressures would operate to give the population with language abilities the required reproductive advantage. With respect to complex systems of nature, The Linguist speculates that the Fibonnaci pattern might be seen in patterns of possible syllables and theme-rheme relations. However, just as in other places in the natural world where Fibonnaci patterns are seen, the challenge is to explain why they should appear.

In addition to the dialogues themselves, the book is also amply provided with supplementary material as an aid to the reader. There is a 23-page Appendix, written by Jairo Nunes and Ellen Thompson, which collects and extends the many technical definitions which occur in the volume and provides more formal definitions of many of the key terms, including things such as 'syntactic object', '(minimal/maximal) projection' and '(internal/checking) domain'. Following that, there is an 11-page section which provides chapter summaries for the six main chapters of the book (which gives some indication of the breadth and depth of the volume). Uriagereka also provides a list of the 'formal notions' which are explicitly raised in the

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text along with references to where discussion can be found in the text or Appendix. Finally, between the end notes and the references there is a glossary of potentially unfamiliar terms used in the book. (When items in the glossary appear for the first time in the text of the book itself, they are printed in boldface.) Items in the glossary include technical terms of linguistics, which are defined more intuitively and less formally than in the Appendix, as well as various other terms from the many disciplines which are touched upon during the course of the conversation.

3. Evaluation

Without question, the strongest feature of the book is its pulling together of various key strands that make up the Minimalist Program in an extremely coherent and accessible way. Uriagereka makes a startling claim in his Preface when he says of chapters 3 and 4 that '… only a few times will the reader need a pencil and paper to reflect on what's discussed' (xxxix). That the claim is essentially correct is even more startling, considering the complexity of the topics under discussion. As discussed in the previous section, these chapters present not only the 'core' Minimalist technicalia of Chomsky (1995b) (including those accursed set-theoretic descriptions of nodes), but also the key ideas and consequences of Kayne's (1994) Linear Correspondence Axiom – two works not renowned for their user-friendliness. In other chapters, Uriagereka also brings in the ideas of other researchers examining fundamental aspects of the computational system, such as Hale & Keyser (1993) and Epstein and his collaborators (Epstein et al. 1998, Epstein (in press)).

The importance of a volume like this, which presents virtually every key idea within contemporary Chomskyan syntax, really cannot be overstated. In a very radical way, the transition from the *Lectures on government and binding* framework (Chomsky 1981) to that of the Minimalist Program constitutes the abandonment of a theory with a greater degree of empirical coverage in favor of a theory with a lesser degree of empirical coverage.[3] One central task therefore is to reconstruct and extend the empirical coverage of the earlier framework. Because *Rhyme and reason* sets out the foundational issues (both conceptual and empirical) in a particularly clear fashion, it is a valuable tool in this endeavor. Not only does it provide a platform on which further research can be built but it also, through its clarity, highlights those areas where the Minimalist Program is unsatisfactory or needs improvement.

[3] Perhaps contrary to initial intuitions, this is the normal practice in science (see Feyerabend (1975) for much discussion).

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4. Some residual problems

The potential pitfall with a book like *Rhyme and reason* is that it can end up being a little too clever, and a little too ambitious. Uriagereka has the dialogue format working against him in certain respects, in that it does not present an easy way to introduce much of the background material that he needs to discuss. Also, some of the very ambitious discussion on Days 1 and 6 is interesting, but seems too speculative, and is therefore not completely satisfying, and the book seems occasionally unfocused because of the desire to accommodate both the educated layman and the specialist syntactician. Finally, on a more technical note, there are a couple of important areas surrounding movement and Economy which deserve more discussion than they receive.

4.1 *An 'Other' problem*

Without question, the single most striking feature of the book is Uriagereka's use of the dialogue format. While his remarks in the second Preface of Lasnik & Uriagereka (1988) concerning the sterility of modern scientific writing are certainly apt and well-taken, his structuring of the volume as a series of conversations may have tipped the balance in favor of creativity at the expense of clarity. There is an inherent tension between the flow required for an effective and readable dialogue and the (sometimes extensive) background information which it is necessary to put across in a volume of the depth and breadth of *Rhyme and reason*, and the book does not always resolve this tension satisfactorily.

In the initial chapters of the book, where the relationship between linguistics and other aspects of the natural world is discussed, the conversation itself ends up proceeding at a level beyond what would be appropriate for an ordinary educated reader who was unfamiliar with these specific fields. This is necessary in order to make the dialogue flow more naturally, given the background knowledge of the characters of The Linguist and particularly The Other. Uriagereka does include considerable explanatory material and references in various sidebar Figures, but their very length can distract the reader from the flow of the argument. In the end, however, it must be said that Uriagereka does very well to present the material given the constraints that he has chosen to operate under.

The problem reoccurs in the technical discussions in chapters 3–5, where Uriagereka often provides sidebar Figures as well. In this case, they contain phrase-by-phrase glosses for the technical definitions which occur in the text. These are extremely well done and necessary for understanding the discussion. However, again, the dialogue format does not provide an easy way to integrate this material. Placed in the text, the flow of the dialogue is interrupted. Placed in the sidebar, the flow is there but is lost to the reader

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because of the need to consult the sidebar. Given that Uriagereka has opted for the dialogue format, the correct decision has probably been made. However, like the previous case, a more 'standard' mode of presentation would have allowed the information to be put in the main text where it probably belongs.

A related problem is the fact that The Linguist presents all of the linguistic ideas in the volume without any references. Uriagereka does provide extensive references in the endnotes, which highlights the communal nature of current linguistic research. But it does mean that the reader who is interested in following up (or correctly attributing) the ideas presented will need to refer to the endnotes constantly. Given the flowing, organic nature of the conversations as The Linguist and The Other pass from topic to topic, return to topics from previous days, etc., the constant 'interruptions' can easily throw the reader off track. This again might not have been an issue had the dialogue format not been chosen.

4.2 *Scope ambiguities*

Uriagereka is also quite right to point out in the preface (xxxvii) that Chomsky's Minimalist Program brings to the fore and makes explicit the drive for elegance and simplicity, and that, from this, questions of evolution and complexity arise naturally. There is a tension here, however, as, on the one hand, Uriagereka wants to explore these questions and discuss the 'big issues'. On the other hand, Uriagereka correctly sees Minimalism as 'an exercise in boundaries' and that 'the linguist is justified in stopping about where this book does' (xxxviii–xxxix). In practice, where The Linguist stops is almost before things get started. Particularly in Days 1 and 6, where questions of the evolution of language and its relationship to complex systems of the natural world (including much discussion of the Fibonnaci series) take place, the overriding impression is that linguistics at this point is in too early a stage for a concrete contribution. A too frequent pattern is a long discussion or speculation by The Other about an issue, with The Linguist's eventual reply amounting to 'Sure, whatever' and the (correct) observation that not enough is known to really begin to decide the issue. Uriagereka does well to make clear what issues are relevant and why, and some of the speculations are interesting, but often the eventual connection to the rest of the book does not seem to justify the extensive length of the discussion.

Another potential problem of scope of a different kind concerns the sort of person that *Rhyme and reason* is aimed at. Uriagereka has an ambitious target for his potential audience: everyone from the educated layman to the specialist syntactician. Clearly, in attempting to write for such a wide scope of potential reader, Uriagereka runs the risk of a book which fails to satisfy anyone. It is a considerable achievement that Uriagereka succeeds at all at

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the task he has set himself. However, there is still a feeling that certain residual problems exist. For example, Uriagereka discusses relatively little actual linguistic data given the length of the book (like Chomsky's own work, in fact), and tends to restrict himself to examples which are fairly straightforward. As Massimo Piatelli-Palmirini notes in the Foreword (xxv), this does allow Uriagereka to avoid the real-life difficulties of convincing non-linguists of the validity of grammatical or other linguistic intuitions (particularly when the intuitions are not completely sharp). It is also true that the central arguments behind the Minimalist Program (and the change of framework from *Lectures on government and binding*) are conceptual. However, this has the effect of underrepresenting what little empirical coverage the Minimalist Program actually possesses and thereby potentially undermining the volume's persuasiveness for those readers who might not be so swayed by the conceptual arguments. Additionally, from the point of view of the educated layman (or student), there are occasionally phenomena which do not receive enough exposition to be persuasive and comprehensible (such as abstract Case in chapter 3 or raising constructions in chapter 5).

4.3 *Experiencing technical difficulties*

Many potential criticisms of the more technical portions of the volume are not fairly directed at Uriagereka because, in most instances, he is merely drawing together analyses and information from other primary sources and thereby inherits their various merits and shortcomings. And he certainly cannot be held responsible for any developments subsequent to the book's going to press.[4] However, there are a couple of omissions in the technical discussion in chapters 3–5 which concern general areas of direct relevance to the book. Some of these issues were discussed in the early days of Minimalism and perhaps should have been included. In any case, familiarity with them is essential for a 'complete' overview of the Minimalist Program.

The first issue concerns locally computable Economy of Derivation metrics and the issue of Procrastinate. Uriagereka (in the form of The Linguist) just recapitulates a portion of Chomsky's (1995b: chapter 4) limited discussion of his quasi-local version of Economy of Derivation. However, there are only passing references to an important book on the topic, Collins (1997) (which is cited as Collins (forthcoming)), which addresses many of the issues which the discussion in *Rhyme and reason* resolves somewhat unsatisfactorily. In particular, Collins (1997) observes that Chomsky's Economy metric retains a 'vestigial' global character

[4] An obvious example concerns the issue of strong (or in Uriagereka's terminology 'viral') features being the driving force for movement. Uriagereka, like Chomsky (1995: 233) is forced to concede that it must remain a bare stipulation. Chomsky (1998), however, suggests that strong features may be eliminable.

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because Procrastinate is retained as an optimality criterion. At least two derivations must be considered at every choice point, and it is necessary for the computational system to 'look ahead' to the resulting PF and LF interfaces of each competitor derivation in order to see whether procrastination at that choice point causes the derivation to crash. An attempt at managing the computational complexity that this induces drives much of the discussion of this topic in *Rhyme and reason* (e.g., 295–297 and 361–364). Collins (1997), however, argues that Procrastinate can be entirely eliminated and the empirical coverage retained, resulting in a version of Economy of Derivation which is completely locally computable, obviating the need for any look-ahead.[5]

A second area which feels slightly underdeveloped is the issue of Last Resort. This is a particular problem given the essentially stipulative character of strong or 'viral' features (see also fn. 4 above). The definition of Last Resort in (7) above is essentially the 'Enlightened Self-Interest' of Lasnik (1995). As Uriagereka defines it more informally in the glossary (600): 'a movement operation must license a checking relation'. It is presented in the text and then passed over without further comment from The Other despite the fact that this very issue (whether movement can take place if only a feature of the mover or only a feature of the target is checked) is discussed at some length in early Minimalist literature such as Lasnik (1995) and Collins (1997). The only reference to the fact that a debate exists is contained in fn. 63 of chapter 6, where, in fact, a completely tangential point is being made. Also, Chomsky (1995b: 261) gives some specific arguments against the version of Last Resort which Uriagereka adopts which probably should have been addressed, although it is admittedly not clear that Chomsky's arguments would hold against the specific constellation of assumptions which *Rhyme and reason* adopts. In any case, in a volume of this breadth and scope, there should be more extensive discussion of this important topic than Uriagereka provides.

5. Conclusion

When all is said and done, *Rhyme and reason* resembles nothing so much as an architectural folly (which, it must be emphasized, is meant in large measure as a compliment). It is an impressive achievement, and in certain respects inspiring. It is a unique creation and possesses a singularity of vision which stands it quite apart from the ordinary professional contribution to the field, presenting key issues in a way that can and should be appreciated both by the educated layman and by working generative linguists (particularly those whose work impinges on syntax). It is in certain respects unfair to

[5] See also Poole (1996; 1998), which independently reaches the same conclusions regarding Procrastinate and suggests a different locally computable economy metric.

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criticize a work because it fails to attain one's impression of what it might have been. However, what Uriagereka has chosen to do and the precise way he has chosen to do it mean that some readers could be left with the feeling that, with a sufficiently well-thought-out but more conventional approach, the material might have been better served.

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Author's address: Department of English Literary & Linguistic Studies,
Percy Building,
University of Newcastle,
Newcastle upon Tyne NE1 7RU,
U.K.
E-mail: geoffrey.poole@ncl.ac.uk

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