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NOTES AND DISCUSSION

'(Virtually) conceptually necessary'[1]

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1. Background

One often reads today (see below) that certain properties of natural language (NL) or certain methods of describing NLs are (VIRTUALLY) CONCEPTUALLY NECESSARY. I take the negative view that such usages are an illegitimate, purely rhetorical way of seeking to justify assumptions which cannot be supported on genuine factual or theoretical grounds. Put differently, such claims are a way of suggesting that specific and actually highly controversial assumptions more or less follow from some very general and uncontroversial features of NL. The problem is that the suggestion is not, and, I claim, could not be, backed up with genuine evidence or argument showing that it is true.

A first clue that something is wrong here is that the central concept, 'conceptually necessary', is most unclear. In the 1920s one might have said that it was 'conceptually necessary' for a heavier-than-air aircraft to have propellers and wings; jet engines and helicopters reveal that assumption is wrong. But the demonstration of falsehood depends on the concept 'heavier-than-air aircraft' having sufficient clarity that one can determine both that a helicopter is one and yet lacks wings and that a Concorde is one but lacks propellers. What is the analog for NL? Finding such would seem to demand a level of understanding of the nature of NL that it is doubtful can be presented.

The hedging with 'virtually' is a second clue that something is amiss. For inherent in the meaning of the hedge is that a claim of the form 'X is virtually true' concedes that 'X is true' tout court is false. Hence hedging 'conceptual necessity' in this way reveals an unwillingness to actually claim that NL features have the obscure property and indeed admits that they do NOT.

[1] I would like to thank Robert D. Borsley for a number of very useful comments on earlier versions of this article, which have greatly improved this version. I would also like to thank an anonymous *JL* referee. No blame for deficiencies accrues to anyone but the author.

To justify these negative remarks, in what follows, I analyze in some detail three actual claims of 'conceptual necessity'. I suggest that the rhetorical function of such terminology is to facilitate question-begging and the acceptance of arguably baseless claims, those for which no argument has ever been provided, and, in specific cases, claims for which no viable support could be provided (since they are false).

2. An operation called 'Copy'

Chomsky (1995: 168–169) states:

(1) Another standard assumption is that a language consists of two components: a lexicon and a computational system. The lexicon specifies the items that enter into the computational system, with their idiosyncratic properties. The computational system uses these elements to generate derivations and SDs. The derivation of a particular linguistic expression, then, involves a choice of items from the lexicon and a computation that constructs the pair of interface representations. So far we are within the domain of virtual conceptual necessity, at least if the general outlook is adopted.

These ideas are evidently quite basic to much of the work in what is called the MINIMALIST PROGRAM. No argument is offered for them, and the 'conceptual necessity' terminology suggests that none is necessary. But that is erroneous, since, as it stands, (1) is inter alia question-begging about the nature of proper grammars for NLs. Built into the remarks are never-justified assumptions that such grammars must be generative/constructive/proof-theoretic/'procedural' devices.[2] As discussed in Postal (in press: chapter 6), this

[2] The relevant question-begging is seen clearly in remarks like (i).

(i) Chomsky (1977: 125)
For example, some variety of recursive function theory provides the means in principle to express linguistic rules.

Characterization as question-begging is justified since (a) the remark is hardly a logical truth but (b) was backed by no presentation or citation of any argument.

Relevant to point (a), Chomsky (1980: 122–123) himself has in effect admitted that (i) is not known to be true:

(ii) I mentioned that it might turn out that grammars do not generate languages at all. Given the epiphenomenal nature of the notion 'language,' this would not be a particularly disturbing discovery. It would mean that the real systems that are mentally represented do not happen to specify recursively enumerable languages.

Ignoring claims and implications about epiphenomena and mental representation, with which I do not agree, (ii) does indicate that even in the author's terms what a grammar specifies might not be a recursively enumerable collection. That accepts, contra (i), that NLs might not be characterizable with 'some variety of recursive function theory'. That such a possibility is an actuality is argued in Langendoen & Postal (1984, 1985) and Postal (in press: chapter 6).

assumption is quite gratuitous and an extant, never-answered challenge to it has existed for at least twenty years. In Johnson & Postal (1980) and Langendoen & Postal (1984) an informal sketch of a non-generative, model-theoretic or 'declarative' approach to grammars was provided; see also Pullum & Scholz (2001) and references therein. A number of current approaches distinct from those appealing to 'conceptual necessity' seem to be 'declarative' in this sense; see Pollard & Sag (1994), Kay (1998) and Dalrymple (2001).

Moreover, Postal (in press: chapter 6) argues in a new way that no NL can have a proof-theoretic grammar. The issue here is not which view is right. It is only that discourse like (1) builds into its very foundations a refusal to FACE THE ALTERNATIVE.

A key aspect of (1) is the idea that grammars bifurcate into two components, one a lexicon. Implicit is a view of the lexicon as in effect analogous to a computer file, which is somehow accessed to provide the basis for a construction of sentences by a proof-theoretic grammar. Aoun, Choueiri & Hornstein (2001) attempt to flesh out this picture involving the lexicon in a particular way so as to putatively bring out more clearly the sense in which sentence construction relates to the lexicon, as follows:

(2) Aoun, Choueiri & Hornstein (2001: 400)
We believe that Copy is similarly conceptually necessary, in the sense of following from a very uncontroversial design feature of Universal Grammar. It rests on the fact that there is a (virtually unanimously held) distinction between the lexicon and the computational system and that words are accessed from the lexicon. How does Copy follow from this fact? It is universally assumed that the atoms manipulated by the computational system come from the lexicon. How does the computational system access the lexicon? It does so by *copying* elements from the lexicon to the computational system. That accessing the lexicon involves copying is clear from the fact that the lexicon gets no smaller when it is accessed and words are obtained for manipulation by the syntax. If this is correct, then grammars that distinguish the lexicon from the computational system conceptually presuppose an operation like Copy. As virtually every approach to grammar assumes something like a distinction between lexicon and grammar, Copy is a 'virtually conceptually necessary' operation for much the same reason that Merge is.

It is evident that justification of this account would depend critically on an argued answer to the basic question begged in (1). This is whether grammars are proof-theoretic devices, which build sentences in the way a computer program creates some output. Only the idea that they are underlies the claim that there needs to be an OPERATION which accesses the lexicon and copies its

entries as part of a sentence-building procedure. The authors just cited are concerned with the question 'how does the computational system access the lexicon?'. But this query evidently depends on an assumption that there is such a system and that it accesses things, claims which are denied by any view which takes a proper NL grammar to consist of model-theoretically interpreted statements, not operations. So an unavoidable aspect of any remarks about 'conceptual necessity' is that they presuppose the existence of the feature claimed to manifest the specified type of necessity. Therefore, even if one assumed that it made sense to talk about 'conceptual necessity' for aspects of NL, which I do not, one can minimally never take seriously claims that such and such is a 'conceptually necessary' feature of NL in the absence of strong evidence that it is, first of all, a feature.

Use of the substantively empty 'conceptually necessary' to talk about a supposed copy operation then fills space which should first be taken up with argument that there is such an operation. In what follows, it is shown that any claim that the existence of lexical items and phrasal combinations of them requires the existence of an operation is entirely false.

3. An operation called 'Merge'

Another key claim of the minimalist program is that there is an operation called Merge.

(3) (a) Chomsky (1995: 226)
The simplest such operation takes a pair of syntactic objects (SO_i, SO_j) and replaces them by a new combined syntactic object SO_{ij}. Call this operation *Merge*. We will return to its properties, merely noting here that the operations Select and Merge, or some close counterparts, are necessary components of any theory of natural language.

(b) Chomsky (1995: 378)
Something like Merge is inescapable in any languagelike system, …

(4) Chomsky (2000b: 101)
First, what operations enter into this component of C_{HL}? One is indispensable in some form for any language-like system: the operation *Merge*, which takes two syntactic objects (α, β) and forms $K(\alpha, \beta)$ from them.

(5) Collins (2001: 43)
In any theory of grammar, there will be a lexicon, a PF component and an LF component. In addition, there will be some operation (called Merge) that combines phrases and lexical items into larger phrases. This operation is a necessary part of any theory of human grammar. It allows us to explain how grammar makes 'infinite use of finite means'.

Again, though, nothing motivates talk of any operation combining syntactic objects other than the question-begging that grammars should be generative/proof-theoretic. The claim at the end of (3a) and in (3b), (4) and (5), hedged only by talk of 'close counterparts', that the existence of such is a necessary feature of any theory of NL is not grounded in any way. So invocation of 'necessity' again fills space which should have been taken up by arguments for generative grammars and/or arguments against model-theoretic ones, the latter nowhere to be found. The illegitimate character of the preceding is brought out most sharply by the lack of reference anywhere in such writings even to the existence of alternatives to proof-theoretic grammars. And this citational failure is well-motivated. To make explicit the existence of the model-theoretic alternative would be to highlight the need for an argument favoring proof-theoretic grammars and the need for responses to extant arguments against such grammars. Since there is no sign that such arguments could be constructed, talk about 'necessity' obfuscates the fact that actually highly controversial and indeed apparently unsupportable items of dogma are being advanced without intellectual foundation or justification.

Just as Aoun, Choueiri & Hornstein (2001) attempt to elaborate the putative 'conceptual necessity' of Copy, they proceed in the same way with Merge, stating as in (6):[3]

(6) Aoun, Choueiri & Hornstein (2001: 399)
Chomsky (1993) has argued that Merge is a virtually conceptually necessary operation. In what sense is this so? Its conceptual necessity

[3] The issue of choice between proof-theoretic and model-theoretic approaches to grammar is clouded by inadequate accounts of the history of ideas. Consider:

(i) Chomsky (1995: 162)
I [=Chomsky: PMP] have ALWAYS understood a generative grammar to be NOTHING MORE than an explicit grammar [both emphases mine: PMP].

This is, though, a remarkable falsehood; it clearly contradicts such earlier statements as (ii) and (iii).

(ii) Chomsky (1959b: 138)
The weakest condition that can significantly be placed on grammars is that F be included in the class of general, unrestricted Turing machines.

(iii) Chomsky (1957: 13)
The grammar of L will thus be a device that generates all of the grammatical sequences of L and none of the ungrammatical ones.

Both these quoted assertions from the 1950s are (grotesquely) incompatible with claim (i). A model-theoretic grammar is not a Turing machine at all and thus cannot be included in the class of such. Moreover, such a grammar does not necessarily generate anything in the technical sense, since there is no requirement that the collection it specifies be a recursively enumerable set, or even a set; see Langendoen & Postal (1984).

Claim (i) appears in a footnote, where it functions as part of a distorted reply to the correct remarks of McCawley (1988), who concluded that Chomsky's (1986a) position represented, as Chomsky (1995: 162) quoted: 'a "sharp change" in my [=Chomsky's: PMP] usage that gives the enterprise an entirely different cast from that of the 1960s, when the

> rests on its link to a very obvious feature of natural languages: sentences are composed of words that are arranged in larger phrasal structures. Given this fact, there must be some operation for composing words into phrases, and this operation is Merge. What makes Merge 'virtually conceptually necessary' is that every theory needs an operation like it in order to accommodate this obvious fact about natural language.

For convenience of reference, in (7), I break up their passage into individual sentences and clauses placed in numbered angled brackets.

(7) ⟨1⟩ Chomsky (1993) has argued that Merge is a virtually conceptually necessary operation.
⟨2⟩ In what sense is this so?
⟨3⟩ Its conceptual necessity rests on its link to a very obvious feature of natural languages:
⟨4⟩ sentences are composed of words that are arranged in larger phrasal structures.
⟨5⟩ Given this fact, there must be some operation for composing words into phrases, and this operation is Merge.
⟨6⟩ What makes Merge 'virtually conceptually necessary' is that every theory needs an operation like it in order to accommodate this obvious fact about natural language.

The authors' footnote 31 refers to (7) as involving REASONING. Accepting this, one can examine that reasoning by attempting to construe (7) as an actual formal argument. Certain conclusions are immediate. Subparts ⟨1⟩, ⟨2⟩ and ⟨3⟩ could play no role. The premiss is ⟨4⟩. Sentence ⟨5⟩ claims that there follows from ⟨4⟩ at least the existence of some operation

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task … was taken to be "specifying the membership of a set of sentences that is identified with a language"'. As (iii) shows, despite the denials, McCawley's claim was grounded in historical reality.

Chomsky (1995: 162–163) then went on to claim: 'But the characterization he gives does not imply that "generative" means anything more than "explicit"; there is, furthermore, no change in usage or conception, at least for me, in this regard'. But quotes (ii) and (iii) show the falsity of the claim that 'generative' was intended to denote only 'explicit', which would have been historically bizarre given that it was a technical notion from logic, and one having rich content far beyond an appeal to mere 'explicitness'. Thus Chomsky (1965: 9) specified: 'The term "generate" is familiar in the sense intended here in logic, particularly in Post's theory of combinatorial systems.' And any technical specification of 'generative' reveals the same point. So Partee, ter Meulen & Wall (1993: 35) specify: 'A formal grammar (or simply grammar) is essentially a deductive system of axioms and rules of inference (see chapter 8), which generates the sentences of a language as its theorems.' Like any such account, this clearly brings out the specific proof-theoretic character of generative grammars, which are built out of the analogs of logical rules of inference, not out of statements, which are the elements of model-theoretic grammars. But either type could be explicit.

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composing words into phrases = Merge, and possibly some 'necessity' (via the 'must'). Statement ⟨6⟩ repeats that such an operation exists and concludes that it is 'conceptually necessary' (hedged with 'virtually') and that every theory needs it. So the structure of the putative argument is (8).

(8) (a) Premiss = Sentences are composed of words arranged in larger phrasal structures.
(b) Intermediate Conclusion = There is some operation, Merge, composing words into phrases.
(c) Ultimate Conclusion = That operation, Merge, is virtually conceptually necessary.

As it stands, though, this putative reasoning is just non-sequiturs. No known logic permits any deduction of (b) from the premiss, of (c) from (b), or of (c) from the premiss. As it stands, no valid logical connection at all is established between the premiss and the final conclusion (c) or the intermediate conclusion (b).

What would have to be done to convert (8) into an actual argument? Needed are further premises relating (8a) to the existence of operations. One of these would need to be an analog of an axiom of infinity of set theory (see e.g. Stoll 1979: 298; Partee, ter Meulen & Wall 1993: 216). For if there are only finitely many compositions of words in the collection, they could be listed just like the atoms of the lexicon, and no operations to form them could conceivably be required. So necessary for conversion of (8) into an argument is an additional premiss something like:

(9) The collection of phrasal combinations of words contains infinitely many members.

But that still doesn't permit derivation of proposition (8b) by known logic. One would evidently need a more articulated premiss, such as (10).

(10) The existence of an infinite collection of (phrasal) combinations of a finite number of objects (words) entails the existence of an OPERATION of object (word/phrase) combination.

With an axiom like (10), one could develop a version of the original argument in which (8b) actually followed logically. But just to advance (10) as an axiom WITHOUT SUPPORTING ARGUMENT is no more and no less than to make explicit the question-begging of whether NL grammars are proof-theoretic or model-theoretic. Moreover, no serious argument for (10) could ever be advanced, since it is just false. For it is of course standard in formal studies such as logic and mathematics to specify the membership of infinite collections of complex objects (set-theoretically 'built' of simpler ones) without operations, via the specification of an axiom

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system together with a model-theoretic interpretation of the statements the axioms represent.[4]

It is important enough to illustrate the possibility of non-proof-theoretic characterizations of (infinite) NL collections that I will instantiate it for an actual case. This can be accomplished by specifying a trivial though infinite linguistic model, and showing how all and only the allowed combinations can be precisely specified with no analog of a Merge operation whatever. The model consists of the full infinite collection whose initial elements are as listed in (11).

(11) (a) My father died.
(b) My father's father died.
(c) My father's father's father died.
(d) My father's father's father's father died.
(e) My father's father's father's father's father died.

This infinite collection can be schematized via the Kleene star notation as in (12).

(12) {My + (father + 's)* + father + die + ed}

But for simplicity, I will regard *father's* and *died* as unanalyzed lexical atoms. So the total lexicon for the mini-NL at issue in something like the terms of the authors being criticized is the four-word set in (13).

(13) {my, father, father's, died}

I will also assume that the notion 'arranged in larger phrasal structures' of the quoted material simply means that the linguistic objects are LINGUISTIC TREES in the standard sense defined by various well-known explicit axiom systems such as that in Partee, ter Meulen & Wall (1993: 441–442). The task then is to define an infinite collection which includes at least one such tree for each element of the collection schematized by (12) and no structure for anything else. For concreteness and with no implications for the argument, I assume that the relevant constituent structures are defined by the following constituency assumptions. Full sentences involve trees whose root nodes are labeled S and consist exclusively of NP + Verb. Subjects of clauses are defined by nodes labeled NP. Intuitive possessor phrases of the form *my* are defined by nodes labeled Pos^A, intuitive possessor phrases of the form *father's* are defined by nodes labeled Pos^B, and there is a larger possessive constituent defined by nodes labeled Pos^C. The ten axioms listed in (14) suffice to characterize the relevant collection.

[4] The same concepts of 'conceptual necessity' appealed to by Aoun, Choueiri & Hornstein (2001) are found in Hornstein (2001: 211–212), with, however, nothing in the way of additional tenable support.

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(14) The language schematized in (12) consists of all and only the members of the collection {X}, such that:
  (a) $x \in \{X\}$ if and only if X is a linguistic tree in the sense of Partee, ter Meulen & Wall (1993: 441–442) whose nodes are a subset of $\{n_a \ldots n_q\}$, whose non-terminal labels are a subset of {S, NP, V, Pos^A, Pos^B, Pos^C} and whose terminal labels are those of (13), and:
  (b) a node n_j is labeled 'S' if and only if it is a root node, and:
  (c) a node n_j is a root if and only if there are two non-terminal nodes n_k and n_l such that n_j immediately dominates n_k and n_l, and n_k is labeled NP and n_l is labeled V, and:
  (d) a node n_j is labeled V if and only if there is a terminal node n_k which (i) is immediately dominated by n_j and (ii) is labeled 'died', and:
  (e) a node n_j is labeled NP if and only if there are nodes n_k and n_l such that n_j immediately dominates n_k and n_l, and n_k is labeled Pos^C and n_l is labeled N, and:
  (f) a node n_j is labeled N if and only if there is a terminal node n_k which (i) is immediately dominated by n_j and (ii) is labeled 'father', and:
  (g) a node n_j is labeled Pos^C if and only if there are nodes n_k and n_l such that n_j immediately dominates only nodes n_k and n_l, and n_k is labeled Pos^A and either $n_k = n_l$ or n_l is labeled Pos^B, and:
  (h) a node n_j is labeled Pos^A if and only if there is a terminal node n_k which (i) is immediately dominated by n_j and (ii) is labeled 'my', and:
  (i) a node n_j is labeled Pos^B if and only if either (i) there are nodes n_k and n_l such that n_j immediately dominates only nodes n_k and n_l, and either $n_k = n_l$ and there is a terminal node n_m immediately dominated by n_k and labeled 'father's' or (ii) $n_k \neq n_l$ and both n_k and n_l are labeled Pos^B, and:
  (j) if n_k and n_l are sister non-terminal nodes, then n_k linearly precedes n_l if n_k is labeled NP or n_k is labeled Pos^A or n_k is labeled Pos^C.

The non-obvious aspect of these axioms is that the form *my* is the only representative of the Pos^A constituent and has no other analysis, that *father's* is the only LEXICAL instantiation of Pos^B and that the recursion which renders the collection (denumerably) infinite is due to the fact that a node labeled Pos^B can immediately dominate two other nodes labeled Pos^B (permitting unbounded left branching, right branching, or center embeddings for Pos^B nodes).[5] I claim that the set of strings schematized in (12) is exactly the union

[5] According to the view being criticized, an operation, Merge, is 'virtually conceptually necessary'. And it is part of a putative overall computational system, that is, one which, by definition, characterizes a recursively enumerable set of objects. Given the latter, if, contrary to fact, the existence of phrasal combinations of words over an infinite range really rendered Merge 'conceptually necessary', this would have important consequences for MATHEMATICS.

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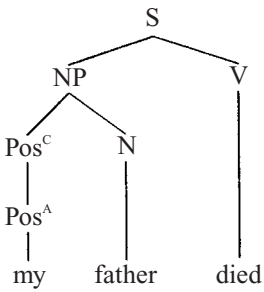
of the yields of the set of trees which satisfy the logical conjunction of the tree-defining axioms (mentioned on p. 606 above) and the axioms of (14).

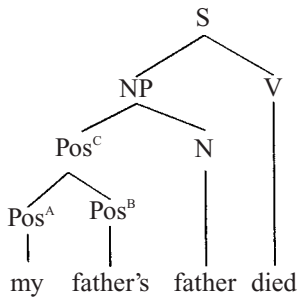
This overall axiom set is satisfied by e.g. clauses containing NPs like those in (15), but not satisfied by those containing NPs like those in (16).

(15) Good Structures, that is, Models of (14)

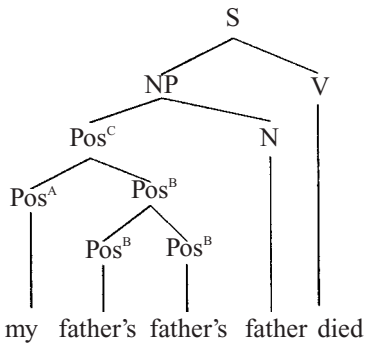
(a)



(b)



(c)



For it is of course well-known that any recursively enumerable set can be coded as a set of numbers via the device of gödel numbering. Therefore, the output of the computational procedure claimed to be the heart of the minimalist notion of grammar can be regarded as a recursively enumerable set of numbers. If it were true that specification of such a set entailed the existence of an operation (e.g. Merge), it would follow that NUMBER THEORY requires analogous operations to, for example, specify the collection of natural numbers, normally specified via Peano's Axioms. But number theory invokes no analog of Merge at all. Is this basic mathematical theory, developed over millennia by multitudes of history's finest mathematicians, thereby inadequate? Such an absurd consequence gives some measure of the lack of seriousness of the claim of Merge's 'conceptual necessity'.

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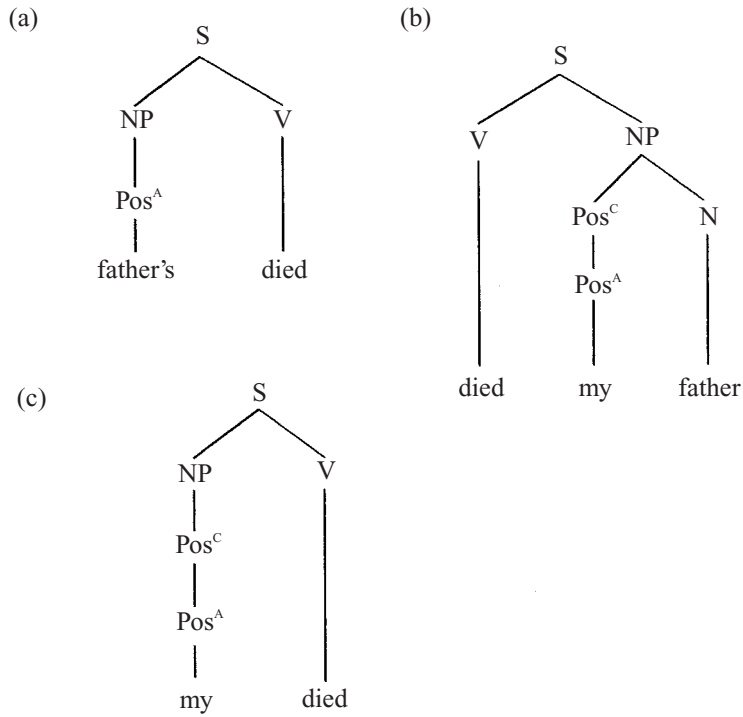
(16) Bad Structures, that is, non-Models of (14)



Clearly, then, the membership of a collection, more specifically, a collection of standard linguistic trees, can perfectly well be specified with no appeal to ANY operation, hence no appeal to Merge, and equally with no appeal to a lexical access operation like Copy.[6] Claims that such operations are '(virtually) conceptually necessary'/inevitable/inescapable/etc. are mere propaganda which cannot hide the fact that such operations have never been argued to serve any proper function in a linguistic theory. To show that they did, one would at the least need an argument that proof-theoretic grammars embodying operations (like Merge, Copy, various transformations, etc.) are superior to model-theoretically interpreted grammars consisting of STATEMENTS (like, for example, those of (14)). As far as I know, though, the literature is entirely free of any such argument.

If one had solid, fact-based arguments for a position, one would, I suggest, never be motivated to talk about its 'conceptual necessity'. One must then

[6] Arguably, the insight that a collection of trees can be specified without generative mechanisms goes back to McCawley's (1968) (reprinted in McCawley 1971) discussion of 'node admissability conditions'. The root idea was attributed by him to a personal communication of Richard Stanley.

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suspect that whenever such an idiom is used, one is in the dubious realm where one seeks to promulgate or defend a view DESPITE the fact that one has no argument or evidence for it.

4. A PROPERTY CALLED 'DISPLACEMENT'

There is also much discussion in recent minimalist writings about a putative property called DISPLACEMENT, which seems to be no more than a renaming (for unknown reasons) of what was formerly called movement. As explication of this notion, one finds remarks like those in (17).

(17) (a) Chomsky (2000a: 12)
In the syntactic computation, there seems to be a second and more dramatic imperfection in language design, at least an apparent one: the 'displacement property' that is a pervasive aspect of language: phrases are interpreted as if they were in a different position in the expression, where similar items sometimes do appear and are interpreted in terms of natural local relations.

(b) Chomsky (2000c: 22)
What I mean by that is the pervasive fact that phrases are interpreted as if they were in some different position in the structure where such items sometimes are actually sounded.

(c) Hornstein (2001: 4)
Sentences show displacement properties in the sense that expressions pronounced in one position are interpreted in another.

These highly informal accounts are only modestly informative. The notion of being 'interpreted in a position' is hardly clear. For instance, what is a position? Is it a feature of the superficial form of sentences, of some abstract 'logical structure', or what? So, in what positions exactly are the PHONETICALLY EMPTY elements, recognized en masse in the views talking about displacement, interpreted? Moreover, consider, for example, the DP subject in (18b), which seems to yield the same overall clausal interpretation as that in (18a).

(18) (a) Each of the guerrilla leaders was taller than any woman.
(b) The guerrilla leaders were each taller than any woman.

The phrase *the guerrilla leaders* in (18b) is, I guess, pronounced in subject position. Is it interpreted there, hence in a different position than the same words with the same meaning in (18a)? Further, in what position is a phrase with the meaning of the subject of (18a) interpreted in (18b)?[7]

[7] The situation is clouded further by the fact that much of the sort of linguistics in which claims of 'conceptual necessity' have arisen appeals to usually covert displacement to account for the scope of quantificational elements. So, for instance, May (1985) analyzes

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Setting aside such issues, the notion, whatever it means, seems too broad. Thus the highlighted *wh*-phrases in (19a, b) seem to have equal claim to being interpreted in e.g. an object position of the verb *buy*.

(19) (a) It is a car **which** you won't regret agreeing to buy.
(b) It is a car **which** years from now you won't have to ask yourself why you agreed to buy it.

And yet, given the resumptive pronoun in (19b), perfectly grammatical in colloquial American English (see e.g. Kroch 1981), historically only the *wh*-phrase in (19a) has been taken to involve movement/displacement.

Consider, too, paired topicalization and left dislocation cases like those in (20) and (21).

(20) (a) Marsha wants that/*that you pet her gerbil.
(b) That/*[That you pet her gerbil]$_1$, Marsha wants t_1 very badly.
(c) That/*[That you pet her gerbil]$_1$, Marsha wants it_1 very badly.
(21) (a) Marsha sought it/to outrun the grizzly/*outrunning the grizzly.
(b) Marsha considered it/outrunning the grizzly.
(c) *[Outrunning the grizzly]$_1$, Marsha should never have sought t_1/it_1.
(d) [Outrunning the grizzly]$_1$, Marsha should never have considered t_1/it.

The key fact is that in these cases, left dislocatees, which link to resumptive pronouns, obey the same strict categorization constraints as do topics and the same as would the same phrases in the position of the gap/resumptive pronoun. This means that if topics are taken to instantiate displacement but left dislocatees are not, 'generalizations are lost'. This argument would be very strong if it were true, as seems to be widely accepted, that strict subcategorizations of the type in question are required to be local in a very limited sense.

The problem is perhaps worse in (22).

(22) That two and two is seven, that, I am quite sure of.

Here, the clausal topic would seem to have a call to be interpreted as the object of the preposition, a position where it could never be pronounced. But if anything has been displaced from that position in the terms at issue it

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a case like (i), for example, as involving covert raising of the object DP, yielding a so-called LF structure (ii).

(i) John saw everyone.
(ii) [$_S$ [$_{NP}$ everyone] [$_S$ John saw [$_{NP}$ e_2]]]

This analysis is connected to claim (iii):

(iii) 'The scope of α is the set of nodes that α c-commands at LF.'

When talking about the putative overt movement structures, it might make sense to say that, for example, *everyone* in (i) is interpreted in the postverbal object position. But in the sort of terms appealed to by May, its scope properties depend on another position.

would have to be *that*. Examples at least grossly parallel to (22) are common in Germanic languages, Swedish, for example; see e.g. Andersson (1982: 35).

All this is just to indicate that the current terminological incarnation of the earlier notion of a transformationally moved phrase is not at all clear in its extension. Despite this, one reads:

(23) (a) Chomsky (2001: 8)
And Merge yields the property of 'displacement', which is ubiquitous in language and must be captured in some manner in any theory.

(b) Chomsky (2000a: 13)
The optimal computational procedure consists, then, of the operation Merge and operations to construct the displacement property: transformational operations or some counterpart. The second of the two parallel endeavors sought to reduce the transformational component to the simplest form; though unlike phrase-structure rules, it seems to be ineliminable.

(c) Chomsky (2000c: 24)
Every theory of language has some way of capturing the displacement property; so they all have transformations or some counterpart.

(d) Chomsky (2001: 8–9, note 29)
Recourse to any device to account for the displacement phenomena also is mistaken, unless it is independently motivated (as is internal Merge). If this is correct, then the radically simplified form of transformational grammar that has become familiar ('Move α' and its variants) is a kind of conceptual necessity, given the undeniable existence of the displacement phenomena.

(24) Hornstein (2001: 6)
It is self-evident that natural languages manifest 'displacement' in the sense that expressions in a sentence are heard in one position yet interpreted from another.

In such declarations, one is told, problematically, that there is some NL property, displacement; but implicit and more than problematic is the additional assumption that this property represents transformational movement, an idea made explicit in (23). Once more, talk of 'conceptual necessity' is supposed to make it seem beyond question that such MOVEMENT is an undeniable feature of NL. But the transition from recognition of the sort of facts putatively taken in some frameworks to motivate talk of transformations to a claim that thereby one MUST recognize transformational mechanisms is a non-sequitur.

The very unclarity of the notion 'displacement' already touched on in itself renders suspect a claim that any hypothesis about how it can be described (that is, movement) has any kind of 'necessity'. And such suspicion

should expand by orders of magnitude when it is recognized that there are, of course, a variety of extant non-transformational ways of describing each of the phenomena characterized in minimalist terms as displacement. To justify any claim of 'necessity', it would, minimally, be requisite to show that movement accounts are superior to available alternatives (see below). But attempts to do this seem to be non-existent.[8]

In their place, one finds only substantively empty, self-serving comments like the following:

(25) Chomsky & Lasnik (1995: 25)
The transformational rules still exist. Such devices appear to be unavoidable in one or another form, whether taken to be operations forming derivations or relations established on representations.

That is, without argument, transformations are claimed to be unavoidable although the phenomena they are claimed to describe have for more than twenty years been described in a variety of distinct frameworks WHICH AVOID THEM, including GPSG (see e.g. Gazdar 1981, 1982; Gazdar, Klein, Pullum & Sag 1985), HPSG (see e.g. Pollard & Sag 1987, 1994; Borsley 1996), LFG (see Dalrymple, Kaplan, Maxwell & Zaenen 1995; Dalrymple 2001: chapter 14), APG (see e.g. Johnson & Postal 1980) and categorial grammar (see e.g. Jacobson 1992; Steedman 1996). Again, then, claims of '(conceptual) necessity' or inevitability are found as the only justification for the arbitrary and factually unsupported decision to adopt some view, namely, the decision to invoke a framework utilizing grammatical transformations. A serious basis for the latter in the late 20th and early 21st centuries would have required substantive arguments for the superiority of transformational descriptions over those available in, inter alia, the other frameworks mentioned. But in the linguistics quoted, it suffices to invoke a fake 'conceptual necessity' or inevitability. One can hardly fail to suspect that the reason for this is that those who invoke 'conceptual necessity' for appeal to transformational mechanisms are aware of their inability to argue for their adoption on genuine substantive grounds.[9]

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[8] One should note that in the early stages of generative grammar, say from 1955 to 1978, to justify appeal to a transformational mechanism for the description of some phenomenon Q, it sufficed to argue (i) that Q was a syntactic phenomenon and (ii) that a transformational description of Q was superior to a phrase structural one, these two classes of devices arguably being the only syntactic ones available. The current situation, however, bears no relation to that one.

[9] The question-begging involved in current talk about displacement is by no means limited to the few authors cited here in this connection. It is, for instance, built into the very structure of a proposed conference *Triggers*, held at Tilburg University, The Netherlands. Its call, found at http://kubnw8.kub.nl/~breitbar/triggers/index.html (A. Breitbarth, A.Breitbarth@kub.nl), begins:

> Phrase structure and displacement are prominent universal properties of natural language. While some approaches have tried to eliminate transformational operations,

Moreover, there is an aspect of the situation just described, that is, the invocation of some sort of 'necessity' for transformational description of a so-called 'displacement' property, which is even uglier than what has so far been described. For a notable feature of the transformational literature of recent decades which invokes the 'conceptual necessity' of transformations is a continuation of a tradition of largely IGNORING COORDINATION. Even after almost fifty years of promulgation of transformational ideas, there remains, notably, no standard or accepted way of describing in such terms the interaction of coordination with the sort of constructions taken to exemplify displacement. And the issue is usually not only not treated, but not even mentioned.[10]

Consider, for instance, such paradigms as (26) and (27).

(26) (a) Quentin was rejected by Sally.
(b) Quentin was rejected by Sally and was ignored by Louise.
(c) Quentin and Ferdinand were respectively rejected by Sally and ignored by Louise.
(d) Those (two) losers were respectively rejected by Sally and ignored by Louise.

(27) (a) I don't remember which house Marsha criticized.
(b) I don't remember which house Marsha criticized and Marian later ignored.
(c) I don't remember which house and which apartment Marsha criticized and Marian praised, respectively.
(d) I don't remember which three houses Marsha criticized, Marian praised and Isabelle ignored, respectively.

Cases like (26a) and (27a) are uniformly taken in the tradition which now speaks of the 'conceptual necessity' of transformational operations as involving them and thus as realizing the displacement property. In the former case, accounts have always invoked at least a displacement of the object DP into subject position. In the latter case, fronted question phrases have always been taken to instantiate a kind of phrase displacement. But it is unclear how

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displacement continues to play a crucial role in derivational theories such as Minimalism. Concentrating on displacement we can ask ourselves two different questions:

(i) Why does it exist in human language? and
(ii) How is it implemented?

Thus, although the authors of this document correctly observe that some approaches to syntax do not appeal to transformational devices, the entire outlined structure of the conference ignores this and takes displacement as a known fact. So a key question is putatively why it exists. But the richly outlined structure of the conference makes clear that NONE OF IT will be devoted to arguing that transformational movement exists, or to countering arguments that it does not.

[10] For instance, the indices of Chomsky (1986a, b; 1988; 1995; 2000a, c; 2002) all fail to list either 'coordination' or 'conjunction'.

these notions are to apply even to relatively simple cases like (26b) and (27b). So, for instance, with respect to (26b), the tradition at issue always takes the object position of the passive verbs to involve an object DP. And yet in the output, there is only a single subject DP, not two. How can displacement bring this about? The literature under criticism here provides no answers.

In (26c), the sort of case referred to as involving INTERWOVEN DEPENDENCIES in Postal (1998), the number of DPs does correspond to the number of passive verbs which should have objects, but the relevant DPs are inside a coordinate subject. Moreover, they must of course be interpreted in a non-random way, with their order determining the order of the verbs with which they must be linked. The usual transformational ideas are just impotent with respect to such facts. And that is even more true for partially plural interwoven dependency cases like (26d), where there is no correspondence between the single plural subject DP and the (in general, unboundedly large) *n*-ad of passive verbs. Here it is entirely obscure how any notion of displacement linking underlying objects and the subject position of passives could give an account of such cases. The literature invoking the putative 'conceptual necessity' of transformational accounts of displacement contains absolutely nothing to dispel this obscurity.

Of course, the same points made for the passive cases in (26) hold for the interrogative DP ones in (27). And it seems that parallel paradigms can be constructed for every English construction involving at least what is considered DP displacement in the terms at issue, e.g. relative clauses, topicalization, clefting, etc. In short, today, nearly five decades after transformational ideas began to be advocated as an advance in grammatical thinking, there remains, even for English, no account of any actual so-called DP displacement construction in such terms which does not appear to crash against coordinate and especially interwoven dependency facts. Multiply reiterated invocations of 'conceptual necessity', all notably unaccompanied by mention of facts like (26b, c, d) and (27b, c, d), should not be allowed to hide this truly deep, massive and, worse, unacknowledged failure.[11]

5. 'CONCEPTUAL NECESSITY' BASED ON 'NON-EXISTENT' OBJECTS

There is a further aspect of the claims that have been considered to the effect that Copy, Merge and Move are 'conceptually necessary', hedged or not. The limited attempted justifications for this, in so far as one can discern them,

[11] Notably, since the inception of modern phrase structure approaches to NL grammar, especially since Gazdar (1981), these approaches have provided extensive discussions of, and sophisticated approaches to, coordination. Even here, though, there is no account of interwoven dependency cases, which seem to have so far defied serious understanding in any terms.

hinge, as we have seen, on appeal to lexical items and their composition into larger phrases, up to sentence-level phrases. However, as considered in detail in Postal (in press: chapter 11), Chomsky (1999: 34) has, remarkably, claimed that '[t]hese are not entities with some ontological status; they are introduced to simplify talk about properties of FL and L, and can be eliminated in favor of internalist notions'. Here the 'these' clearly denotes sentences.

But the COMBINATION of these views is incoherent independently of the incoherence of the ontological view on its own. For although Chomsky (1995) and the works by Hornstein et al. attempt to justify Copy and Merge, that is, parts in their terms of the FL (faculty of language) and L (the internal grammar), via appeal to the properties of words and phrases built out of them, Chomsky (1999) in the cited quote has declared that such words and phrases, parts of sentences or expressions in his terms, ARE NOT REAL THINGS and can be eliminated in terms of internalist notions like his FL and L.

While chapter 11 of Postal (in press) derides this view, more ridicule is in order here since in the context of the 'conceptual necessity' claims, it yields a totally vicious circle. The combination of the 'not entities with some ontological status' view plus the 'conceptual necessity' claim means that the putatively 'conceptually necessary' features of FL/L can only be justified as such by appeal to things CLAIMED NOT TO EXIST. So, in such terms, Merge, for example, is putatively 'conceptually necessary' to form phrasal combinations of words, ultimately whole sentences, which Chomsky (1999) has asserted not to be real things. The appropriate analogy is to a claim on page 3 of a housing development proposal that incorporation of a special super-sensitive security system is '(virtually) conceptually necessary' in all new houses to ward off GHOSTS following a statement on page 2 that ghosts are not real.

I have been arguing in effect that claims of 'virtual conceptual necessity' are not serious. And one could hardly find a better (partial) revelation of the sort of PLAY-ACTING at linguistics which they represent than a documentation that such claims seek to show that some aspect of something is '(virtually) conceptually necessary' by appealing to properties of things their chief advocate has claimed have no independent existence!

The jarring term 'play-acting' just used deserves a bit of exegesis. First, it entered the linguistic literature no later than when Chomsky (1959a: 39) wrote apropos of some contentless claims by B. F. Skinner: 'To speak of "conditioning" or "bringing previously available behavior under control of a new stimulus" in such a case is just a kind of play-acting at science'. Second, if, as I believe, that terminology was appropriate in the case of Skinner's empty claims, how could it not be appropriate apropos of an equally empty and deceptive claim that talk of a feature of a putative mechanism is 'conceptually necessary' to characterize properties of objects claimed to be a mere façon de parler of that mechanism? Third, one might ask how it has come about that the same individual who at the beginning stage of the generative grammar movement he initiated was evidently

sensitive to the presence of play-acting in others more than four decades later freely produces discourse of comparable quality. Reflection on that question should, I suggest, yield some appreciation of the overall intellectual context in which talk of 'conceptual necessity' is found.

6. Conclusion

I have argued in this article that invocations of '(virtual) conceptual necessity' take their place as part of a long-standing and fundamental program of question-begging about the nature of grammars. One should confront this claim with declarations such as (28).

(28) Chomsky (2001: 3)
> The minimalist program is the attempt to explore these questions. Its task is to examine every device (principle, idea, …) that is employed in characterizing languages to determine to what extent it can be eliminated in favor of a principled account in terms of general conditions of computational efficiency and the interface condition that the organ must satisfy for it to function at all.

Setting aside issues about whether characterizing NLs has anything to do with organs (see chapter 11 of Postal (in press) and references therein), one must recognize that the apparently laudable program of examining 'every device … principle, idea … that is employed in characterizing languages', a program which, so limited, ANYONE could support, has so far never led to any examination whatever of whether or not the whole idea of generative/proof-theoretic (as opposed to model-theoretic) machinery is appropriate (still less, required) for NL grammars. Until this is done, and I would not advise losing any sleep waiting, all the apparent open-minded examination of notions employed in characterizing NLs is actually conceptually internal to questions which have now been begged in the tradition represented by (28) for nearly fifty years.

Use of terminology like '(virtually) conceptually necessary' and 'inevitable' by authors to characterize the properties of their own ideas can be viewed as an attempt to provide certain views with a sort of privileged status, with the goal of placing them at least rhetorically beyond the demands of serious argument or evidence. One would not be surprised, then, to find utilizers of such expressions invoking other sorts of privileged status claims as well. Observe then:

(29) Chomsky (2001: 1)
> A stronger thesis is that the biolinguistic approach has a kind of privileged status, in that every constructive approach to human language and its use presupposes it, or something similar, at least tacitly. That too seems to me tenable, but I will not pursue the issue here.

Here the work informs its readers that the foundational position underlying it has a PRIVILEGED status. One is not told what that means but clearly an author only says such a thing with a persuasive goal. The implication is that OPPOSING positions, of course not cited, if any, need some sort of extra or special justification. The only putative reason given for this status is a mere claim, exactly as unsupported as the claim of privilege, that every 'constructive' approach to NL presupposes the author's position, or something similar, at least tacitly. Cutting through the forest of associated hedges ('constructive', 'something similar', 'tacitly'), one sees the same unsupported and false assertions, analyzed in chapter 11 of Postal (in press), that everyone accepts (must accept?) the foundational assumptions of the author. The underlying theme is that 'I do not have to argue for my position but you have to argue for yours, because mine is privileged'.

Since anyone can of course just CLAIM that their position is privileged in some way,[12] one can be sure that unless such a claim is buttressed with detailed and viable argument, one is deep into a realm of question-begging, pretense and propaganda. Real linguistics would have no need for such actually desperate attempts to divert attention from alternatives because its results would impose themselves by their truth and the evidence for them, and it would not need to fear comparison with alternatives. But producers of the sort of thing at issue here are rightfully insecure, since they face not only the risk of being wrong, an everyday possibility for every genuine researcher, but the more serious danger of having the pretense represented by the invocation of empty jargon like 'virtually conceptually necessary' revealed for what it is.

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[12] One might ask whether the present author's invocation of the notion of BEST THEORY in Postal (1972) was an earlier illegitimate appeal to privilege of the sort just criticized. I would suggest not. The reasons are that (i) the claim of privilege in Postal (1972), that is, that one type of framework was inherently superior to another, was buttressed by argument, which it was the whole purpose of the article to elaborate; (ii) the overall claim had the form of a standard Occam's Razor simplicity argument. And it is universally acknowledged that if one theoretical system, S_1, is a proper subset of another, S_2, but has the same factual implications, S_1 is superior to S_2, that is, is privileged. These remarks are entirely independent of any issues concerning the validity or soundness of the purported Occam's Razor argument.

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