Reply: Impossible Words

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The polemical background

It matters to a number of projects whether monomorphemic lexical items ('boy', 'cat', 'give', 'break', etc.) have internal linguistic structure. (Call the theory that they do the Decomposition Hypothesis (DC).) The cognitive science consensus is, overwhelmingly, that DC is true; for example, that there is a level of grammar at which 'break$_{tr}$' has the structure 'cause to break$_{int}$' and so forth. We find this consensus surprising since, as far as we can tell, there is practically no evidence to support it. (For example, there is no psychological evidence that you can't have a word that expresses the concept BREAK$_{TR}$ unless you have the concept CAUSE. But there ought to be if CAUSE is a constituent of BREAK$_{TR}$) This isn't, of course, to say that there are no *prima facie* arguments at all for DC. The best one's we've heard are the Impossible Word Arguments (IWA). That being so we're very interested in whether IWAs are, in fact, sound.

In 1997, Hale and Keyser (HK) published a quite elegant paper that provides a number of such arguments which, they claim, do make a convincing case for DC. We replied in 1999. Now, Kent Johnson has replied to our reply. We claim that Johnson's rebuttals of our rebuttals of Hale and Keyser aren't even close to being convincing; in fact, they turn on *non sequitars*. That's the burden of what follows. We'll stick to Johnson's two main arguments; but, for the record, there's quite a lot of other stuff in his paper that we find unconvincing. For one example, Johnson claims that the cross-linguistic empirical data finds vanishingly few counterexamples to the claim that the agent$_{NP}$ of a sentence is invariably its subject NP. Johnson even provides us with an estimate of the statistical level of confidence at which the data support this generalization. But this is a charade. You can't calculate the probability that Fs are Gs unless you have some reliable *and independent* way of evaluating 'Fa' and 'Ga' In the present case, this means that we can't evaluate the probability that all agent$_{NPS}$ are subjects unless we have some way of deciding which NPs are agent$_{NPS}$ and which are subject$_{NPS}$. In fact, however, there is *no theory at all* of what distinguishes agent$_{NPS}$ from other NPs; which is left entirely to the linguist's intuitions. (Is John the `agent' of `John forgot his appointment,' or is it just the subject?) Likewise for the issue Johnson raises about the concept CAUSE which, he thinks, occurs in the underlying representation of 'break$_{tr}$' This claim is hard to evaluate unless one knows what CAUSE means. What Johnson says about that is that CAUSE "doesn't mean the same thing as the English word 'cause'". This, of course, leaves it open that CAUSE might mean *hippogriff.*[1]

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[1] Johnson also remarks that, because they are theoretical terms, the justification for postulating CAUSE and the like is theory-internal; i.e. it depends on arguments-to-the-best-explanation. That, however, is beside the point. The question isn't whether postulating the concept CAUSE is *justified;* the question is *what concept CAUSE is.*

First Argument

The impossible word argument purports to explain why there aren't words like *blik* such that 'The desk *bliked* Mary' means *Mary broke the desk* (i.e. why there aren't transitive verbs whose subjects are their thematic patients). The explanation involves the claim that words like *blik* "are not the output of any processes in the lexicon".[2] Our objection was that, at best, the explanation accounts for *blik* not being a possible *derived* verb of English. But this leaves open the possibility that it might be a *primitive* word of English. That being so, the putative explanation of there not being a verb *blik* doesn't, in fact, explain why there isn't a verb *blik*.

Johnson's reply to our objection strikes us, frankly, as bewildering. Our argument "contains a rather straight forward flaw. In order to maintain [our] position [we] must assume that our lexical abilities enable the lexicon to contain any logically possible verb as a primitive expression." Why, we wonder, do we have to assume anything of the sort? To the contrary, our argument proceeds from the same assumption that the IWA does: *viz.,* that *blik isn't* a possible verb (*a fortiori*, that not every verb is possible). Our point was that the impossible word story doesn't explain *why blik* isn't possible since it leaves it open that *blik* might be primitive. That is, the impossible word story explains why there isn't *blik* on the assumption that, if there were such a word, it would have to be derived (rather than primitive). In fact, *no* argument has been given for assuming this, and, off hand, we can't imagine how such an argument might go. Johnson reminds us that "no contemporary linguist or psycholinguist…has made the assumption [that] our linguistic abilities enable the lexicon to contain any logically possible verb as a primitive expression]" (340). That's exactly correct; Johnson is preaching to the converted. But, to repeat, what we're assuming is actually *incompatible* with "our linguistic abilities enable the lexicon to contain any logically possible verb"; our assumption is that, on one hand, the lexicon can't contain *blik* and, on the other hand, the IWA doesn't explain why it can't.

SECOND ARGUMENT

Hale and Keyser offer an explanation of why there aren't verbs like **shelve* such that 'David **shelved the book on' is well formed and has "roughly the meaning that David put the books somewhere with respect to the shelf, and the respect in question is given by the preposition 'on'…" (344). Roughly, according to HK, there is no **shelve the books on* because the tree from which lexicalization would have to derive that expression is ill-formed. (See Figure 1).

Figure 1 about here

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[2] Roughly, because to derive the structure underlying *blik* you would need a transformation that raises objects into subject position, and independent arguments suggest that there are is such transformations.
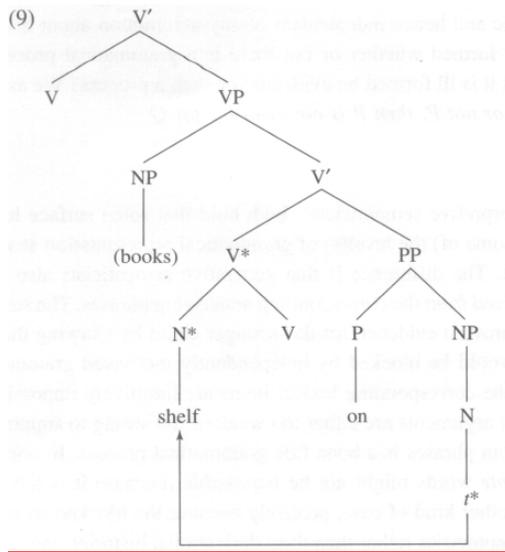
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(9)

V'

V   VP

NP   V'

(books)   V*   PP

N*   V   P   NP

shelf   on   N

*t**

(Roughly that's because the noun `shelf' is 'too far' from the variable t$_*$ to bind it). We argued that this explanation is no good since, if Tree 1 is indeed ill-formed, then nothing further is needed to explain why there is no *shelved the books on*; and that's so *whether or not* the derivation of *shelved the book on* is supposed to involve lexicalization.[3] The point here is very close to our objection to Argument 1. Assume that there is no lexicalization transformation and that *shelve* is primitive. Even so, since Tree 1 is illegal, there could be no *Shelve the book on.* It follows that the fact that there *is* no *shelve the book on* isn't evidence for lexicalization. P can't explain Q if it would be the case that Q whether or not it's the case that P.

Johnson objects to this line of argument because "without a process of lexicalization, there would be no way for any complex lexical structures to be formed into words in the first place. According to HKs theory, *shelve* is ungrammatical because below the surface it is a

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[3] The problem about binding is not all that's wrong with this tree: There's a further question about what, exactly, it is that gets lexicalized in deriving *shelved*. Assume, in what we take to be the spirit of H&K's story, that the highest verb in the tree is something like PUT. Presumably *shelved* gets derived by replacing a constituent of the tree with that verb. But which one? It can't consist of PUT alone because that gives the wrong meaning for *shelved*. But also, it can include either `books' or `on'; since both of these appear in the derived structure for `shelved *the books on, it presumably follows that they aren't incorporated in the structure that lexicalization applies to. As far as we can see, all that's left is to lexicalize `put shelf'; but that can't be what's intended since it doesn't form a constituent of the proposed source tree; and anyhow, it gives the wrong meaning for *shelved*. Our guess is that (9) couldn't be a source for *shelved* even if it didn't contain an illicit binding relation.

complex ungrammatical structure *and* [our emphasis] there is a law of language that says that words, just like sentences, must not be ungrammatical structures. But if the process of lexicalization were absent from this picture there would be no linguistic structure between *shelve and the ungrammatical structure *put a shelf from which it was derived" (345). Surely this is wrong. To repeat: whether or not lexicalization is assumed, no legal derivation can produce Tree 1. That being so, we can explain why there's no *shelve the book on whether or not we assume there is lexicalization. Compare:

 A: I can't see when I'm asleep; that's because when I'm asleep my eyes are closed. *B:* No it isn't; you couldn't see when you're asleep even if your eyes were open. *A:* Perhaps not. Still, according to my theory, it's because my eyes are closed that I can't see when I'm asleep. *A:* So much the worse for your theory.

We still haven't heard a serious argument for grammatical structure in lexical items.

Bibliography

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