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Hale, Kenneth, and Samuel Jay Keyser. 1993. On argument structure and the lexical expression of syntactic relations. In *The view from Building 20: Essays on linguistics in honor of Sylvain Bromberger*, ed. Kenneth Hale and Samuel Jay Keyser, 53–109. Cambridge, Mass.: MIT Press.

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A Response to Fodor and Lepore, “Impossible Words?”

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In this response to “Impossible Words?” (Fodor and Lepore 1999), we begin by stating as clearly as we can the theoretical position we currently hold with respect to argument structure. We hope that it will become clear that although Fodor and Lepore’s comments are relevant to a certain type of impossible-word argument, they are mistaken in assuming that our work is an example of that type.

Our concern is “argument structure,” by which we mean the syntactic configuration projected by a lexical item. Argument structure is the system of structural relations holding between heads (nuclei) and the arguments linked to them, as part of their entries in the lexicon. Although a lexical entry is much more than this, of course, argument structure in the sense intended here is precisely this and nothing more.

In order to illustrate the problems we are concerned with, we offer the following three examples, representing three distinct and productive classes in the English verbal inventory:¹

We wish to thank James Higginbotham and Tom Roeper for very helpful comments and suggestions.

¹ By *productive*, we mean simply that the classes exemplified by the verbs of (1) are well represented in the English lexicon; they are numerous. We are reminded by James Higginbotham, however, that there is another, theoretically more interesting conception of productivity, namely, that which is concerned with the question of why *The mare foaled* is acceptable whereas **The cat kittened* is not. That is, why can’t all animal offspring terms be used in this way? It is likely that there are many answers, but although some confluations may be unacceptable because of phonological factors (as in the case of *kitten*, possibly) or other formulable factors, we suspect that in the final analysis conflation is a lexical matter in the sense that denominal verbs, and deadjectival verbs as well, must be listed in the lexicon. Although their formation has a syntactic character, as we claim, they constitute part of the lexical inventory of the language. The two characteristics, the syntactic and the lexical, are in no way incompatible. In relation to the issue of productivity, it is interesting that speakers have intuitions about neologistic confluations. Some go by without evoking especially negative judgment (e.g., *The shad roed*), whereas others are likely to be rejected by native speakers (*?The kangaroo joeyed*, **The sow pigleted*).

- (1) a. The cow calved.
 b. The screen cleared (when I bumped the keyboard).
 c. She shelved the book.

The verbs of (1) have readily distinguishable syntactic characteristics, and we assume that their syntactic behavior is correlated in some precise way with their associated argument structure configurations, that is, with the syntactic structures they project.

The properties that must be accounted for are the following, at least. The verb *calve* in (1a) is “unergative.” It is therefore superficially intransitive and moreover lacks a transitive counterpart.

- (2) *An injection calved the cow early.

This property is shared by all prototypical unergatives, including other evidently denominal verbs—*laugh*, *sneeze*, *pup*, *foal*, and so on.² By contrast, the verb *clear* in (1b) is “unaccusative.” It is intransitive and does have a transitive counterpart.

- (3) I cleared the screen (when I bumped the keyboard).

The same is true of other unaccusatives, quite systematically those that are evidently deadjectival—*narrow*, *thin*, *widen*, *redde*n, and so on. Finally, the verb *shelve* in (1c) is transitive and has no intransitive counterpart (apart from the middle).

- (4) *The book shelved.

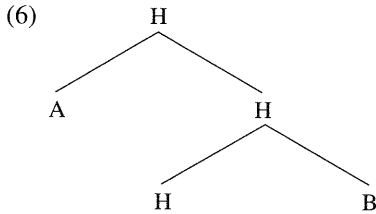
This verb belongs to a large class of denominal location and locatum verbs sharing this property—*box*, *bag*, *bottle*; *saddle*, *harness*, *clothe*.

To account for this, we make certain assumptions about argument structure, and we are in the process of investigating the consequences of those assumptions, which may of course be wrong. Our principal assumptions, expressed informally, are embodied in (5).

- (5) Argument structure is defined in reference to two possible relations between a head and its arguments, namely, the head-complement relation and the head-specifier relation.

For a given configuration, a complement is the unique sister of the head—for example, B in (6), where H is the head. A specifier is the unique sister of the first branching projection of the head—for example, A in (6), where H dominating [H B] is the first branching projection of the head H.

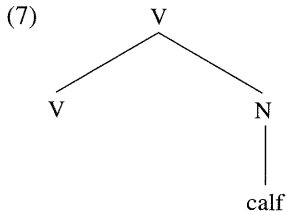
² Verbs of manner of motion are often classified as unergative (except in certain constructions; see, e.g., Levin and Rappaport Hovav 1995). Nevertheless, they have transitive alternants: *I jumped/ran/walked/trotted/cantered/galloped my horse*. We believe, however, that these are not simple transitives of unaccusatives of the type represented by *clear* in (3) or by *break*, for example. Although one can say *I broke the pot by slamming the door*, one cannot say **I jumped my horse by slamming the (stall) door*. We have not yet written our account of this difference.



A given head may enter into one or both or neither of these relations. These are its argument structure properties, and its syntactic behavior is determined by these properties, insofar as its syntactic behavior can be attributed to argument structure as defined.

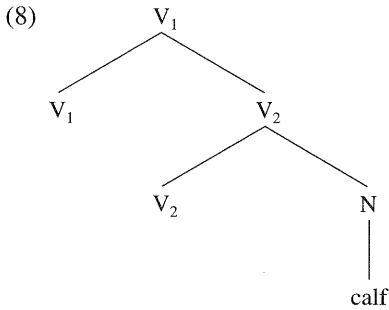
With reference to the verbs of (1), our proposals are as follows, starting with the unergative type exemplified by *calve*. First, we assume that this verb, and other verbs of its type, implicates a process of *conflation*, involving a bare nominal root and a phonologically empty verb. The nominal is the complement of the verb. The process of conflation (essentially head movement, adjoining the nominal to the verbal head) fuses the two items into a single word. At conflation, the verb is no longer “empty,” as it shares the overt phonological matrix of the noun. This is our theory of denominal verb formation.

Abstracting away from the conflation process itself, the argument structure of *calve* of (1a) is as shown in (7).



The essential property of the verbal head here is that it projects a structure that contains a complement, its sister, but it projects no specifier. This is characteristic of unergative verbs in general. They project no specifier. Their sentential syntactic subjects are *external* arguments and are thus excluded from the argument structure configuration itself.

This is the essential property of unergative verbs, in our conception of their argument structure. It is to this property that we trace their inability to enter into the transitivity alternation, an inability exemplified in this case by (2) and by countless other cases, such as **The clown laughed the child* and **The hay sneezed the colt*. The explanation depends upon another assumption, namely, that transitivity involves embedding a verbal projection as the complement of another verb, a free and unavoidable possibility within a system that recognizes the head-complement relation. Transitivity will be successful, or not, depending upon the nature of the embedded verbal projection. Consider (8), a result of the Merge process, defining a structure in which (7) appears as the complement of V_1 . Conflation would fuse V_2 and its nominal complement *calf*, and this derived verb would then conflate with V_1 , giving a putative transitive verb *calve*, as in

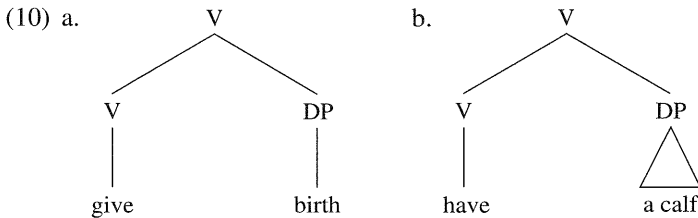


(2). But this is not a successful transitivity, since there is no position in (8) for a sentential syntactic object (i.e., no place for *the cow*, in this case).

Many transitive verbs also share this property. Consider, for example, the verbs *give* and *have* in (9).

- (9) a. The cow gave birth.
 b. The cow had a calf.

These verbs project the same structure as does the empty verb of (7).



These represent the *analytic* type of the simple head-complement configuration—they are the result of Merge alone. The verb of (1a), on the other hand, represents the *synthetic* type, so called because it is the result of both Merge and concomitant conflation.³

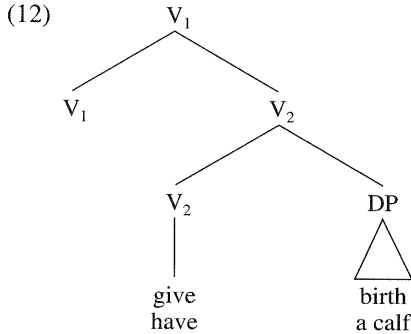
The synthetic and analytic forms share the property that the head projects no specifier and, consequently, neither can undergo transitivity in our sense. Thus, just as (2) is ungrammatical, so are (11a–b).

- (11) a. *An injection gave the cow birth early.
 b. *An injection had the cow a calf.

The intended (and failed) interpretations here are approximately ‘An injection brought it about that the cow gave birth early’ and ‘An injection brought it about that the cow had a calf’. We emphasize that we paraphrase only to give an approximate idea of the meaning. We are not

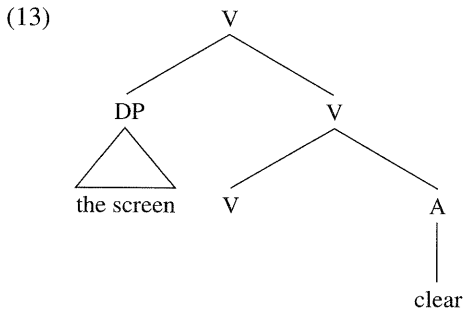
³ The complement in (10) is a full DP projection, as required in sentential syntax. In this respect, (10) differs from (7), in which the complement is a bare N, as required for conflation.

interested in “deriving” forms from paraphrases or semantically similar structures. The sentence *The cow had a calf* is not the source of *The cow calved*. Our claim is simply that these share the same argument structure configuration (the same specifier-head and head-complement relations), and consequently, they share certain syntactic behavior. The insertion of (10) in the complement position of a matrix empty verb, as shown in (12), leads to the same transitivity failure noted in relation to (8).



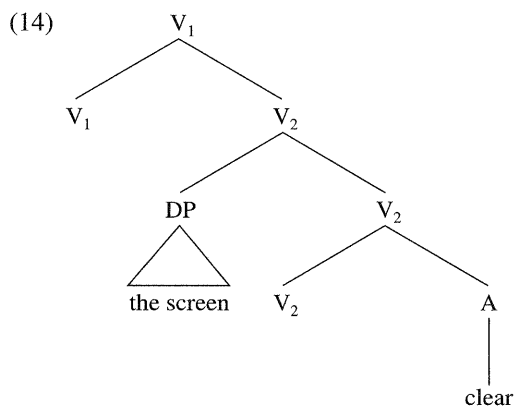
This is an abstract representation of the relations defined by Merge; the surface form would have V_1 and V_2 conflated, of course. Since the subject of V_2 (i.e., *the cow*) is an external argument, it will not appear as a specifier in the lexical argument structure of that verb, by hypothesis. It will therefore not be able to function as the sentential syntactic object of the derived verb. Whatever the fate of (12), it will not give rise to the putative transitives **give the cow birth*, **have the cow a calf*. The DP *the cow* simply cannot appear in the object position of *give* or *have* here. This is accounted for under the assumption that the verb that heads the complement—that is, *give*, *have*—does not project a specifier, just as the empty verb of (7) does not.

The behavior just noted is to be contrasted with that of the deadjectival verb *clear*, whose relevant syntactic behavior is illustrated in (1b) and (3). We assume that the intransitive variant of *clear* is identified with the structure in (13).



Again, this is an abstraction, indicating only the relations defined by Merge, not the conflation that gives rise to the actual deadjectival verb *clear*. The property we are interested in is this: the head V together with its complement A (*clear*) forces the projection of a specifier (occupied by

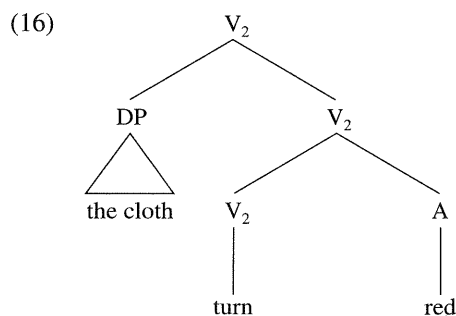
the DP *the screen* in (13)). This is a consistent characteristic of deadjectival verbs, which are classic unaccusatives (see Levin and Rappaport Hovav 1995 regarding these and their opposites, the unergatives), and it is this property that permits transitivity. If (13) appears as the complement of a higher verb, the latter will locally *c*-command the specifier *the screen*. This specifier is thus in the position required for it to function, without further ado, as the sentential syntactic object of the derived verb—that is, of the verb *clear*, arising through conflation first with V_2 and finally with the higher verb, V_1 , as shown in (14).



Deadjectival verbs like *clear*, *narrow*, *thin*, and *redden* are synthetic representatives of their argument structure type. Analytic representatives abound, of course.

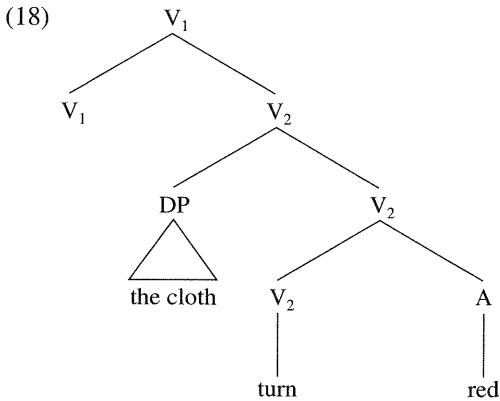
- (15) a. The cloth turned red.
 b. The lake froze solid.
 c. The safe blew open.

As (16) shows, these have precisely the same dyadic structure as their synthetic counterparts.

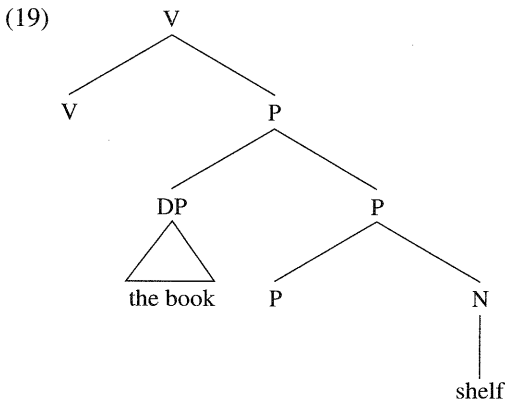


And like their synthetic counterparts, they participate in the transitivity alternation, unavoidably, so to speak, since Merge applies freely and the specifier projected by these verbs presents a DP in the required position, shown in (18), corresponding to (17a), abstracting away from conflation (of V_2 with V_1).

- (17) a. The ochre turned the cloth red.
 b. The arctic air froze the lake solid.
 c. The charge blew the safe open.



Finally, let us consider the argument structure configuration (19) associated with *shelve* in (1c).

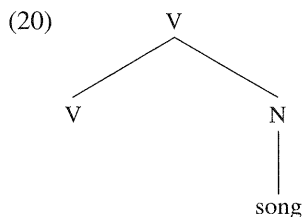


The actual surface form related to this structure, of course, is defined by conflation of the noun *shelf* with its immediate governing head P, an empty (phonologically null) preposition, and subsequent conflation of the P thus derived with the governing V, also empty. The complement of this verb is a P projection which, by the very nature of that category, contains both a complement (*shelf*) and a specifier (DP, *the book*). The latter is in the position required for it to function as the sentential syntactic object of the derived verb *shelve*, resulting from conflation. Denominal location and locatum verbs—like *shelve* and *saddle*, respectively—are synthetic. Analytic counterparts include *put* (*books on the shelf*), *fit* (*the horse with a saddle*), and so on.⁴

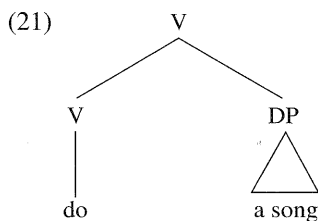
⁴ For reasons discussed elsewhere (Hale and Keyser 1993), we maintain that locatum verbs like *saddle* have the theme (e.g., *saddle*) in complement position and the location (e.g., *horse*) in specifier position. Thus, we do not believe,

The necessary transitivity of denominal location and locatum verbs (see (4)) follows from their argument structure. Unaccusative verbs alternate because both the inner head and the outer head are verbs—the intransitive is simply the inner projection unmerged with another verb. Location and locatum verbs, by contrast, are built upon a prepositional projection, by hypothesis. That is to say, the inner head is a preposition, not a verb; in the absence of the outer verbal structure, we are left not with an intransitive verbal projection but with a prepositional phrase.

With this introduction, we turn to address some of Fodor and Lepore's specific remarks. First let us make the following point, relating to the use of paraphrases. We do not derive verbs like *sing* from expressions like *do a song*. Rather, the argument structure we assign to *sing* is the one shown in (20) (setting aside the phonological detail of ablaut).⁵



The key features of this structure are these: the verb is phonologically null and the complement is a bare noun, not a DP. It is a fact of English that, in general, only bare nouns can enter into the conflation process, and it is likewise a fact of the language that the hosts of conflated nouns are phonologically null verbs (or at most affixes like *-en*, as in *redden*). Nor do we claim that *sing* is derived from a semantic representation of the kind typically cited in capitals—that is, from DO A SONG. We do not derive verbs from semantic representations. Our purpose is not that; rather, it is to understand the argument structure of verbs, and we do this by testing the hypothesis that argument structure is defined by the two relations complement and specifier. The structure of *do a song*, we claim, is as shown in (21).



This differs from (20) in two ways: the verb is overt, and the complement is a full DP. For both reasons, (20) cannot be derived from (21), whether or not the two are, in some sense, paraphrases.

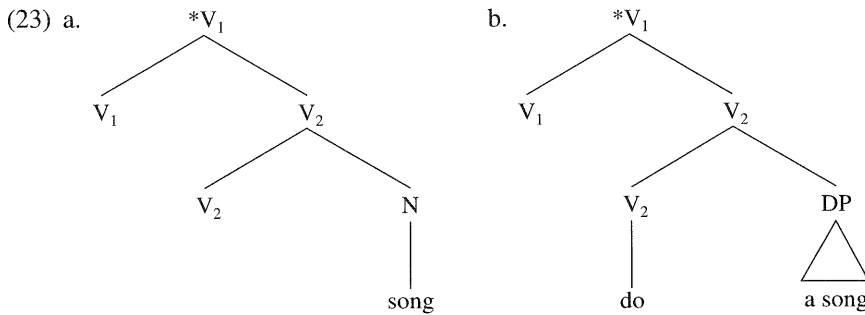
as Fodor and Lepore suggest (p. 445), that *saddle the horse* has anything to do with *put the saddle on the horse*. We do not derive structures from paraphrases, appealing to these only as an expository device. But if we were to suggest a paraphrase for *saddle the horse*, it would be the homomorphic *fit the horse with a saddle*.

⁵ The noun here could actually be *sing*. We do not take a position on this and will use *song*.

They do have something in common, however. Most importantly, for our purposes, they represent the same argument structure configuration: (a) the verbal head takes a complement, and (b) the head does not project a specifier. Hence, neither can transitivize in the manner of deadjectival verbs like *clear* and *thin*. That is to say, neither can merge with a verb to form a simple transitive.

- (22) a. *We sang John.
 b. *We did John a song.

Whether or not these sentences might, irrelevantly, arise from some other structure, they cannot arise by merging (20)–(21) with a (phonologically null) V, as in (23), abstracting away from conflation.



This follows from the structure assumed. Since V_2 projects no specifier, there is no structural position for the object of the derived verb, that is, no position for *John*. To venture into the realm of paraphrase, with the caveat noted, the hypothetical sentences of (22) cannot be paraphrased by *We made/had John sing*, *We made/had John do a song*, the way *The heat melted the ice cream* can be paraphrased by something like *The heat made the ice cream melt*.

Adopting Fodor and Lepore's terminology, we would claim that the verbs of (22) are "impossible words," in the sense that they delimit impossible structures. They cannot come about, under the assumptions of our conception of argument structure. In short, they head impossible argument structures.

This comes to the heart of the matter. Fodor and Lepore propose that *no impossible-word argument could be evidence for lexicalization*. We take it that "lexicalization" (not our term) corresponds to the type of incorporation we have called "conflation" here. They may be right. But let us point out first that we are defending, not conflation itself, but a particular conception of predicate argument structure. And second, we do not distinguish impossible words that involve conflation from impossible words that do not. So, for example, whereas the verb of (24a) is possible, the verb of (24b) is not.

- (24) a. Mud splashed on the wall.
 b. *Mud smeared on the wall.

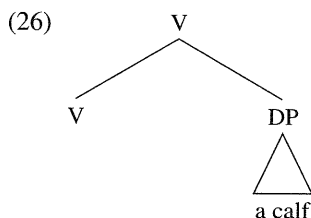
So far as we know, conflation (or lexicalization) is not at issue here. Instead, we believe, the first verb projects a specifier whereas the second does not, a proposal that must, of course, be defended

empirically. We could be wrong, of course. We cite the pair in (24) as a further example of what, if we used it, we would mean by the term *impossible word*. In the case of *smear* in (24b), it would mean simply that that verb is “impossible” because a verb that does not project a specifier must take an external subject. This verb, like the standard location verb *put*, projects no specifier and therefore can only appear in the transitive, as in *They smeared mud on the wall*, whereas *splash* projects a specifier and consequently enters into the transitivity alternation, permitting both (24a) and the transitive *They splashed mud on the wall*. All of this, it must be remembered, makes sense only in the context of a certain body of assumptions, some of which we have introduced in this reply.

Fodor and Lepore identify two impossible-word argument types in our work (Hale and Keyser 1993). One is the case where a derivation is blocked because a rule it depends on is impossible. They cite the example of (25a), though (25b) is also relevant.

- (25) a. *It cowed a calf.
 b. *A calf cowed.

Our point, which we still maintain, is that these cannot be derived by conflation from (26).



The reason is easy to see: *cow* is nowhere to be found, since it is an external argument, if present at all, and hence not in the lexical argument structure configuration.⁶ The theoretical possibility of conflating “downward,” so to speak, incorporating the external subject into the empty V, is what Fodor and Lepore refer to as an “impossible rule.” In fact, at the time we advanced this example, we had in mind, though we formulated it clumsily, that conflation of this type was illicit because it violated the Head Movement Constraint (Travis 1984), putting this in the category of Fodor and Lepore’s second type of impossible-word argument, to be discussed presently. The Head Movement Constraint ensures, in effect, that conflation involves only a head (say, V) and its complement (its immediate sister).⁷

Fodor and Lepore note correctly that V in (26) could not itself raise into the subject, giving (27), if we understand their point.

⁶Independently, (26) is an “impossible structure,” in English, because a phonologically null verb must conflate with its complement. Its complement here is a DP, and English can only conflate bare nouns.

⁷At this point (1998) we would say something slightly different, for reasons that are not germane here. We believe that conflation is a concomitant of Merge (Chomsky 1995) and that it is a relation between a head and the *head* of its complement. Strictly speaking, then, conflation is a specific subcase of the processes constrained by the Head Movement Constraint.

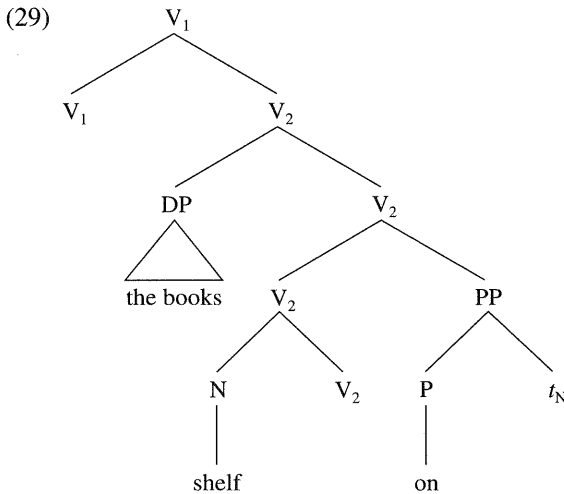
- (27) *[_S[_{DP} A cow had]][_{VP} *t*_{HAD} a calf]].
 (cf. A cow had a calf.)

For us, this is impossible for the reasons just noted: the derivation indicated in (27) cannot be head movement since the subject DP is a specifier, not a head; and assuming *had* is adjoined to *cow*, the word derived in this way (i.e., *cow-had*) is a noun, not a verb. Fodor and Lepore come close to our view of the matter when they say that deriving *It cowed a calf* from *A cow did a calf* (which they star) is impossible because this would involve “lexicalizing an expression that itself is not a well-formed constituent, namely, [*cow did*]” (p. 448).⁸ This observation, which we believe is correct, would be expressed by us in terms of the structural relations required for conflation: the subject does not stand in the proper relation with the verb (which, in our framework, would be phonologically null rather than overt *do*).

In the second type of impossible-word argument identified by Fodor and Lepore, a derivation is blocked because the structure it generates is impossible. They cite the example of (28) (their (7)).

- (28) *He shelved the books on.

As they point out, we claimed in Hale and Keyser 1993 that this was a Minimality violation, actually, a violation of the Head Movement Constraint again.⁹



⁸ Irrelevantly, *A cow did a calf* (Fodor and Lepore’s (4)) is not impossible for us on the analysis according to which *do* is simply being used in place of the *have* of *A cow had a calf*. Although it is clearly impossible if associated with the structure in (27) (and this is Fodor and Lepore’s point, we assume), the sentence *A cow did a calf* would be hard to rule out on the alternative analysis—the sentence *This cow does fine big-boned calves* seems to us fully acceptable. As for *cow* in (25a), Fodor and Lepore object that we do not “explain why there couldn’t be a *primitive*, underived verb *to cow* [i.e., the verb of the hypothetical (25a)] with the paraphrase [‘A cow had a calf’; their (2)]” (p. 449). We guess that such a verb could *only* come about through illicit conflation, in which case the conflation account is more successful than we have hoped to show (but see below for more on the question of underived, primitive verbs).

⁹ The diagram shown in (29) corresponds more or less to the one cited in Fodor and Lepore, differing in inessential

Here the noun *shelf* has conflated with the verb; but the verb and the noun do not stand in the head-complement relation. Seen from the point of view of the trace, this is an Empty Category Principle (ECP) violation (see Baker 1988).¹⁰ The same can be said of (25), assuming those hypothetical forms to be derived by lowering the bare N *cow* into the verb from subject position, thereby leaving the trace in a position where it is not properly governed.

We are probably talking at cross-purposes, not only because we (SJK and KH) are talking from the point of view of the way we now think of these matters, better represented by Hale and Keyser 1998 than by Hale and Keyser 1993, 1997. The differences are matters of detail, but our ideas, and our rhetoric, about what we are really doing have changed somewhat. Thus, for example, if we sounded in 1993 as if we derived “forms from meanings,” we would claim now that we absolutely were not doing that, ever—if anything, we would claim something like the reverse, that certain meanings can be assigned to certain structures.¹¹ At all times, we claimed then and we claim now, our goal is to understand the constraints on predicate argument structure.¹²

The second reason we might be talking at cross-purposes is this. If our separate assumptions were clear and understood, we would probably be in complete agreement. Consider the following passage from Fodor and Lepore’s conclusion:

The difference [between generative semanticists and interpretive semanticists] is that generative semanticists also think that such surface lexical items are *derived from* the corresponding underlying phrases. The strategy of impossible-word arguments is to provide evidence for the stronger claim by showing that the derivations of certain lexical items would be blocked by independently motivated grammatical constraints and that, when they are, the corresponding lexical items are intuitively impossible.

We claim, however, that all such arguments are either too weak or too strong to support the thesis that the derivation of words from phrases is a bona fide grammatical process. In one kind of case, it is left open that *underivable* words might not be *impossible* (because it is left open that they might be primitive); in the other kind of case, precisely because the blocked structures are ungrammatical in virtue of their geometries rather than their derivational histories, their being ill formed provides no evidence for or against there being such a process as lexicalization. (p. 452)

ways. It does differ in one substantial way from what we now think is the correct representation (see (19) in the text); for the purposes of the present discussion, the difference does not matter.

¹⁰ We do not understand Fodor and Lepore’s assertion that “if (7) [our (28)] is ill formed for the reason that HK allege—namely, because there is a mandatory constraint that the structure (9) [our (29)] fails to meet— then, patently, (7) is ill formed whether or not there is a lexicalization transformation” (p. 452). The illicit structure (29) exists precisely because head movement, the “lexicalization transformation” at issue, is implicated in its formation.

¹¹ As for our current rhetoric, we must talk the way we talk now; we find it impossible to return completely to our mindset of 1993—or, actually, that of 1990, or thereabouts, when that paper was written. We ask the reader’s forbearance for any frustration this causes.

¹² For some tentative remarks on structure and meaning, see Hale and Keyser 1993. It is in that relation that we would attempt to account for the observation that *sing* and *do a song*, for example, share a type of meaning—very roughly, that expressed in the paraphrases ‘perform X’ or ‘produce X’. This is what all, or most, predicates of this class—that is, (7) and (10)—have in common. Where X is something that might be called “song” (however loosely), then, in the conflated variant, the “performing” must satisfy the additional requirement that it be by means of the physical gestures and attitudes associated with singing; no such requirement holds for analytic expressions like *do a song* or *perform a song*. As James Higginbotham has pointed out to us, we must take a position on the type of meaning shared by *sing* and *do a song* if we are to speak of the two as synthetic and analytic counterparts of each other.

The challenge embodied in this is too difficult. We will assume again that lexicalization corresponds to our conflation—the formation of a word from a phrase, so to speak, constrained in the manner suggested (i.e., by the head-complement relation). We do not think we can so strongly support conflation as to *prove* it. Our methodological tack, briefly, has been to show that certain putative synthetic and analytic forms share properties. For example, synthetic *laugh* and analytic *give a laugh* share the dual properties that they involve the noun *laugh* and do not transitivize by merging with a matrix V. Assuming conflation, we can propose further that the noun *laugh* is in both cases (the synthetic and the analytic) the lexical head of the complement of the verb. Finally—and this is a promise, not an achievement—given reasonable principles assigning meanings to syntactic configurations, we can account for the near synonymy of *laugh* and *give a laugh*, inasmuch as both, by hypothesis, are based on the same head-complement configuration.¹³

There is crosslinguistic evidence that encourages us to have some faith in this analysis. And here, semantics comes into the picture, as a heuristic, not as an integral part of the analysis. Notions that are typically expressed by means of unergative verbs in English are explicitly analytic in many languages, involving a “light” verb and a nominal complement, exactly like the hypothetical [_V V [_N laugh]] of English. Basque is such a language, with forms such as *barre egin* ‘laugh do’, a phrase. Tanoan languages also use this means of expression, with transparent incorporation in *-hiñl-’a* ‘laugh-do’.¹⁴

But, returning to the issue of impossible words, as Fodor and Lepore point out in the quotation given, “in one kind of case, it is left open that the *underivable* words might not be *impossible* (i.e., because it is left open that they might be primitive).” In fact, we would go farther. We have left open in general the possibility that our confluations might be primitive, taking *primitive* to mean atomic or underived (syntactically speaking). In some cases, indeed, insistence on conflation might seem rather pointless. Except for its denominal character, nothing much would be lost, for example, if we said that English *laugh* is simply a verb, period, and, like the standard unmarked verb, it projects no specifier (i.e., its subject is an external argument). There are reasons for rejecting this view, but the matter is not simple by any means.¹⁵

In conclusion, although Fodor and Lepore have been at pains to expose what they see as the weakness of “impossible-word” arguments, we have been at pains to explore the consequences of “impossible structures.” The fact that structures can carry meanings is orthogonal to our program.

¹³ We can account for the *near* synonymy, we hasten to repeat. The synthetic and the analytic will probably never be synonymous, exactly, since the contribution of the D projection in the latter is absent from the conflated bare noun in the former.

¹⁴ This Tanoan verb retains its transitivity, despite incorporation, and consequently takes an object, referring to the target of laughter or ridicule; the antipassive of this verb, however, corresponds to the unergative *laugh* of English. There is an intransitive variant as well, *-hiñl-’e*.

¹⁵ The cognate argument phenomenon (e.g., *laugh a hearty laugh*, *saddle the horse with a stocksaddle*, *shelve the book on the top shelf*) and the famous small clause complement construction (e.g., *laugh oneself sick*, *laugh them off the stage*; see Goldberg 1997, Hoekstra 1988, 1992, and, for an inventory of the relevant verb classes, Levin 1993) might be marshaled to argue against the conflation analysis of *laugh* and its fellow unergatives. We have tried to accommodate cognate arguments in Hale and Keyser 1997.

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