A COMMENT ON LEXICAL INSERTION

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1. Introductory remarks

In working with the generative phonology of a highly
inflectional or derivational language one repeatedly faces
the problem how to distinguish processes that are genuinely
phonological (synchronically speaking) from what is more
appropriately considered "morphological alternation",
suppletion, and the like. Now, any attempt to define the
limits of morphology involves an hypothesis about the
nature of lexical items, including their representation
in terms of marked boundaries, phonologically specified
idiosyncracies, and non-phonological idiosyncracies. It
goes without saying that it is difficult to discuss
these matters in a meaningful way unless we know where
the lexical items come from, and at which point in gram-
mar lexical insertion takes place. Thus it is that con-
temporary work in syntax and in phonology has to face
one and the same crucial problem: how does "lexicon" fit
into a transformational grammar?

The reflexions of which some elements are presented
below, were provoked as conceptual prerequisites by
research on the interrelationship between morphology and
phonology in languages exhibiting a high degree of morpho-
phonemic complexity (viz. Danish and West Greenlandic
Eskimo). However, the specific questions of lexical in-
sertion on which the present paper concentrates are of a
very general nature, and the subject-matter has indeed
received a good deal of attention in the last few years
in studies of well-known languages such as English. I
have for obvious reasons (such as the advantage of using

familiar quotations for illustration) preferred to refer
to examples in English although my intuitions about the
idioms cited are often insufficient for a serious analysis.

I have made no attempt to survey the literature on
the subject. It must be mentioned in particular that it
has not been possible to include a discussion of the
general literature on morphological and lexicological theo-
ry in the present paper which is to be understood only as
a comment to the discussion of lexical insertion in some
recent papers by McCawley (1968) and other advocates of
the generative semantics trend of tranformational grammer.
The validity of generatice semantics is not at issue
here;[1] it is the sole aim of the paper to present some,
mainly morphological and phonological, evidence bearing
upon the place of lexical insertion in a type of grammer
in which underlying representations are assumed to be of
a semantic kind.

2. The introduction of lexical items in grammar

2.1. Deep versus late insertion

According to the now classic theory of transforma-
tional grammar (see e.g. Chomsky 1965) the base component
of grammar produces strings consisting of chunks of
morpheme-size, which are supplied with a phonological
specification. The syntactic transformations operate on
these items, and in the course of these processes other
phonological specifications may be introduced. That is,
lexical insertion takes place essentially before the
transformational component of grammar, but some of the

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1) The adoption of this kind of framework does not imply
   a dogmatic belief in it as the only possible type of
   grammar. However, as long as generative semantics
   (in essentially the form this theory has at present)
   has not been shown to be inadequate in dealing with
   problems of syntax, it seems fruitful to explore its
   implications for morphology and phonology.

transformations require additional lexical information
to be introduced later.

According to generative semantic theory the rules
of syntax operate on an underlying semantic structure.
Apparently a major part of the syntactic component is
pre-lexical (in European structuralist terminology:
syntax is concerned with content rather than expression).
McCawley posits a whole hierarchy of sentences underlying
a surface sentence like John killed Bill, the surface
verb kill being derived - by successive applications of
a cyclical rule called PREDICATE RAISING or PREDICATE
LIFTING - from such predicates as CAUSE, BECOME, NOT, and
BE ALIVE. This rule lifts the verb of the lowest sentence,
i.e. BE ALIVE, to the next sentence, so that the lifted
verb comes to stand adjacent to NOT, and on the next
cycle it lifts the whole verb complex to the sentence
above it, so that it comes to stand adjacent to BECOME
of the higher sentence. By lexical insertion at this point
we get die (BECOME NOT ALIVE). If, however, the rule
applies once more, the verb resulting from earlier appli-
cations is lifted to the highest sentence so that it
comes to stand adjacent to CAUSE, and by lexical insertion
we get kill (CAUSE BECOME NOT ALIVE).

It is implied by this analysis that there is not
necessarily any syntactic difference between the deriva-
tional relationship of kill to die and the derivational
relationship of, say, break in he broke the glass to
break in the glass broke. Similarly, since it is obvious
that the complex predicate NOT ALIVE underlies the sur-
face adjective dead (if McCawley's analysis is at all
correct in detail[2]), it follows that the derivational

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2) The validity of this particular analysis is immaterial
    to the general principles.

relationship of die to dead corresponds to that of
darken to dark, etc. In each case there is a difference
between arbitrary substitution of lexical material (die
- kill, dead - die) and a more regular type of derivation
(break - break, dark - darken), but this reduces to
merely a matter of morphological irregularity: die - kill
is nothing but an instance of suppletion, if we wish to
formulate the relationship within the framework of deri-
vational morphology.

The analysis of kill which I have sketchily re-
ferred to above, implies that lexical insertion must
occur after cyclical rules like PREDICATE RAISING. On the
other hand, it is claimed that lexical insertion occurs
before some post-cyclical transformations that move
constituents around, since these rules may depend on
specific lexical items (I shall revert to this kind of
argument later).

2.2. Cyclic versus non-cyclic insertion of lexical items

It is supposed that lexical insertion takes place
either last in the transformational cycle or at the very
beginning of the post-cyclic rules of the syntactic com-
ponent.[3] - As far as I can see the latter solution may
mean that a form like kill directly replaces a lexical
entry containing the semantic material CAUSE, BECOME, NOT,
BE ALIVE in some configuration, after it has been brought
together by PREDICATE RAISING. There may be no connec-
tion between the lexical items die and kill except that
the lexical entries for these items share semantic mate-
rial. - The situation is quite different if lexical

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3) These alternatives were presented by McCawley at the
First Scandinavian Summer School, Stockholm 1969.

insertion is cyclic. The lexical item <u>die</u> should, according to that conception, be inserted on some cycle, and on the next cycle PREDICATE RAISING applies to this item in its phonological form so that the higher sentence comes to contain a complex consisting of CAUSE and <u>die</u>. When lexical insertion applies again this hybrid configuration is taken as a lexical entry, and the item <u>kill</u> emerges. Lexical items like <u>die</u> and <u>kill</u> are thus very directly connected since the causative form is transformationally derived from the phonological representation of the verb <u>die</u>.

Obviously lexical insertion is somehow cyclic if it can be shown that this process is sensitive to the phonological shape of some of the material that makes up a lexical entry.

Lakoff (1970 p. 78-79) refers to the <u>come</u>-<u>bring</u> situation as evidence in favour of the hypothesis of lexical decomposition: "The ordinary sense of "come" is related to the ordinary sense of "bring" by a predicate of direct causation (...) In addition, there are many idiomatic expressions containing the phonological form <u>come</u>, whose corresponding causative has the phonological form <u>bring</u> (...) There are enough of such cases to require that a rule be stated relating the cases with "come" and the cases with "bring" (though there will, of course, be exceptions to any such rule). In the lexical decomposition framework, the rule of predicate-lifting will create complex predicates such as "CAUSE - <u>come</u>". The regularity is that "bring" substitutes for such a complex predicate."

Phenomena like this one do not prove that lexical insertion is cyclic. However, the relationship between <u>come</u> and <u>bring</u> is most easily accounted for if we assume

some kind of ordering so that the various readings of
come are first replaced by a common representation, after
which the causative bring is derived by a lexical rule
(which is more or less insensitive to the derivational
history of come). The cyclic interpretation of lexical
insertion sketched above is one approach to this kind
of solution.

There are other types of evidence bearing upon the
question, but we shall leave this aside here.

2.3. Is cyclicality of lexical insertion phonologically plausible?

According to the cyclicality hypothesis a morpholo-
gically indivisible chunk like bring is inserted in two
steps: first the form come is specified in its phonol-
ogical shape (i.e. specified to the same extent as in
those contexts where it appears as a surface verb), and
afterwards the form bring is derived from the form come
plus the element CAUSATIVE. This conception of the
process seems to me inescapable if lexical insertion is
to be cyclic.

There can hardly be any formal objection against
the postulation of transformations that takes some pho-
nological material plus some semantic material and re-
places it all by some totally new phonological material.
But it is not a particularly convincing hypothesis about
what normally goes on in language. It seems awkward to
introduce phonological feature matrices in syntax with
the sole purpose of having a set of such matrices trigger
the insertion of a new set of totally unrelated feature
matrices.

This is an entirely general problem concerning sup-
pletive morphology. In what sense can e.g. the phonologic-
ally specified stem be be said to "underlie" the forms

am, is, was? I find it questionable whether the analysis
of competence can be correlated with a reasonable model
of performance if we claim that non-productive, more or
less atomic formations like bring or was take more de-
rivational machinery than regular formations like (causa-
tive) break or (pret.) drown+ed. It would indeed be inex-
plicable why some of the most central words in language
should be represented by forms exhibiting the longest
paths of derivation. - It seems intuitively more satis-
factory to assume that the aforementioned idiosyncratic
forms are costly only in terms of lexical representa-
tion. It would not matter if they took a good deal of
"space" in lexicon since these very forms are highly
frequently used items. - I shall revert to this crux
of morphology in section 3.1. below.

As for the relationship between specifically
come - bring and die - kill it seems reasonable to assume
that bring is equivalent to come plus the element of
CAUSATIVE; the parallelism of die - kill is less con-
vincing, but it is possible to see the connection. As
mentioned earlier in this paper the relationship between
bring and come can be considered as suppletion, since we
have numerous cases where causative verb and the item
from which it is derived, turn up as identical surface
verbs: break, turn, etc. In other cases the item from
which the causative is derived turns up as a surface ad-
jective, cf. dry, clean (or the underlying predicate
appears both as surface verb and adjective with more or
less identical phonological specifications, cf. fit). It
is obviously a lexical rule of English that causative
verbs can be derived with no phonological change from
items that occur as non-causative verbs or adjectives
(the derivation come ⇒bring, and the blocking of causa-
tive *come, must be stated as an idiosyncracy, but that
poses no problem in the cyclic framework). Now, why is

kill derived from die rather than from dead (if it is at
all derived from any of these)? The adjective dead obvi-
ously reflects a stative predicate, from which die is
derived as a perfective verb. Thus, the above derivation
involves a postulate: causative verbs are derived from
inchoative rather than stative predicates (cf. the deri-
vation of bring from COME rather than from BE THERE, or
the like). If we follow this principle, the transitive
i.e. causative, verb clean is not directly derived from
the stative predicate reflected by the adjective clean,
but it is derived from an intermediate derivation which
means something like BECOME CLEAN.

    How should lexical insertion be imagined if there
is no surface item reflecting such intermediate deriva-
tions?[4] In the case of clean from CAUSE TO BECOME CLEAN
the obvious solution is to insert an intermediate form
which is later blocked if no further derivation occurs:
(i) lexical insertion provides the entry BE CLEAN with
a phonological form: clean, (ii) predicate raising
applies, and lexical insertion for BECOME + clean gives
an unaltered phonological specification ("zero" deriva-
tion), (iii) predicate raising applies again, and lexical
insertion for CAUSE + clean gives an unaltered phonolo-
gical specification ("zero" derivation once more). Output
constraints block the lexical output clean in the stative
sense unless it appears as an adjective, and they also
block this output in the inchoative, "medial" sense,
whereas the output is permitted in the causative sense.
- This solution presupposes either that lexical output
constraints are global rules ("remembering" the deriva-
tion) or that there is a diacritic marking of lexical
items indicating what they are derived from, in order to
distinguish permitted and non-permitted uses of clean.

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4) Cf. Postal (1970) p. 87-88, footnote 37.

The approach outlined above provides us with a very powerful tool, and it must be seriously asked whether it is not too powerful. In the case of <u>kill</u>, what prevents us from positing a "zero" derivation from an item *<u>kill</u> that is more or less synonymous with <u>die</u>? Similarly, instead of deriving <u>bring</u> from <u>come</u>, we might claim that come has a near synonym *<u>bring</u>, which, however, is used only if causative derivation has applied to it. This would mean that lexical insertion in the case of COME may either give <u>come</u> or *<u>bring</u> (possibly as an optional choice in some cases but not in others) and that lexical output conditions block the causative derivation if the string contains the form <u>come</u>, whereas they require this very derivation if the string contains the form <u>bring</u>. The obvious advantage of this kind of solution is that a phonological specification of the verb stem occurs only once in the above-mentioned set of derivations, and that the form of lexical entries becomes easier to state.

On the other hand, if we give up the idea that lexical insertion of <u>bring</u> involves the phonological specification of <u>come</u>, we do not really capture the regularity mentioned earlier, viz. that a great many expressions with <u>come</u> also occur with causative <u>bring</u>. It is interesting whether a generalization to this effect can be made <u>without</u> involving lexical transformations like <u>come</u> ⇒ <u>bring</u>. I shall attempt to approach this problem by considering the place of "idioms" in general in grammar.

3. The identity of lexical entries

3.1. Are idiomatic expressions lexical items?

In a grammar with a deep structure idiomatic expressions like

to kick the bucket (i.e. 'to die')

to pull someone's leg

to go west (quoted as British army slang 'to die')

can be generated like other grammatical strings, and their specific use as metaphors becomes a matter of semantic interpretation (cf. the interesting discussion of "meaning rules" in Kiparsky 1970 p. 277).

In a generative semantic theory of syntax, on the other hand, the underlying structures of such expressions must reflect their metaphorical sense. It may, therefore, be assumed that the lexical entries for kick the bucket or go west are essentially similar to that for die, and that the lexical entry for pull someone's leg at least shares some properties with that for fool. If that is true, there may be no connection between the constituent structure of the string to which lexical insertion applies and the apparent surface structure of the output. A string like kick the bucket will be a lexical item just like the stem die.

It is, however, obvious that idioms like the above are not "morphemes". A sentence like

he kicked the bucket

is formed by inserting the past tense affix -ed inside the string kick the bucket, i.e. if the latter is a lexical item there must be a transformation applying after the insertion of the idiom with the effect:

he [kick the bucket] -ed ⇒ he kicked the bucket

This can be accounted for in a decently simple fashion if the idiom chunk has a lexical phrase marker associated with it, so that kick is marked as a verb and the bucket as a noun phrase. Similarly, the sentence

he pulled Tom's leg

contains an idiom whose invariant part is pull ...'s leg,

with an associated marking of phrase structure so that the tense affix and the object noun can be put into their proper places by transformations with the combined effect:

he [pull ...'s leg] -ed Tom ⇒ he pulled Tom's leg

However, morphological idiosyncracies complicate the matter. Compare the sentences:

he pulled my leg

he went west

As regards "portmanteau morphs" like my and went, there are two reasonable hypotheses: (i) that they are derived by a morphological process after insertion of the "stem"; (ii) that they are inserted directly as lexical items.

(i) If we assume that forms like my, went are produced in a separate, late subcomponent, i.e. morphology, we may set up derivations like

he [pull ...'s leg] -ed me ⇒ he pulled me's leg
⇒ he pulled my leg

he [go west] -ed ⇒ he go-ed west ⇒ he went west

However, if we derive my from me+s, went from go+ed, we are back in the problem of come - bring: it is unsatisfactory to introduce a phonologically specified item with the sole purpose of replacing it by something else. An alternative conception of the relationship between lexicon and morphology is that lexical insertion rules generate sets of truly synonymous alternants such as

$$\text{GO} \Rightarrow \begin{Bmatrix} \text{go} \\ \text{*wend} \\ \text{(etc.)} \end{Bmatrix} \qquad \text{PAST TENSE} \Rightarrow \begin{Bmatrix} \text{-ed} \\ \text{-t} \\ \text{(etc.)} \end{Bmatrix} \begin{pmatrix} \text{for sim-} \\ \text{plicity} \\ \text{standard} \\ \text{orthogra-} \\ \text{phy is} \\ \text{used} \end{pmatrix}$$

whose members may combine with each other to produce forms like goes=*wends, *goed=went, etc., whereas morphology comprises a set of conditions on such forms, i.e. functions as a filter that blocks unpermitted forms. The problem with

this latter conception is, as mentioned in section 2.3. above, that it is too powerful a device in grammar theory. In fact, the linguist is in danger of being involved in a jungle of ad hoc decisions such as a choice between *wend (cf. send) or *wean (i.e. wēn, cf. mean) as the underlying "stem" of went.

(ii) As suggested in section 2.3. we may instead take "portmanteau morphs" as specified in lexicon, so that much of what is traditionally called "morphology" comes under lexical insertion proper. This means that there are lexical entries of the form

GO+PAST

I+POSS.

and that lexical insertion, when applying to these complexes, produces the items went and my directly.

A general evaluation of the relative merits of "morphological" and "lexical" approaches to the specification of such idiosyncracies as suppleting alternants cannot be undertaken in this paper.[5] If, however, the latter approach is considered from the point of view of idiomatic phrases it has obvious shortcomings within the framework of the current generative semantic conception of lexical insertion. Consider the literal and metaphorical readings of the sentence he went west. On the literal reading went would be inserted directly as a lexical item, but what about the metaphor went west? If we set up go west and went west as separate lexical items, we burden the lexicon with an enormous lot of items. If, on the other hand, we have just one lexical item for the metaphorical expression, we shall have to derive irregular forms anyway after postlexical transformations.

This would fail to capture the important generalization that the pattern go-went in the idiom is the same as the inflection of the verb go in its ordinary sense.

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5) It will be apparent that I do not quite agree with Kiefer (1970 p. 5) that "we may safely conclude that to treat inflectional morphology in the lexicon is completely inadequate". (I hope to expound on this elsewhere.)

This situation is unacceptable. Lexical insertion must treat the verb go in such idioms as go west, go to hell, etc. as the same item as the ordinary verb go, otherwise we shall have to state the same morphological facts several times though there can be no reasonable doubt that go in the different uses is mastered as the "same" verb by speakers of English.[6] It is misleading to treat such occurrences of a verb in different idiomatic expressions as "homonymy" on a par with, say, the homonymy between race meaning 'species' and race meaning a kind of contest, but this is exactly what we should be forced to do.

3.2. "Idiom" formation

The evidence considered above suggests that "idioms" may not be a matter of lexical insertion only. The idiom go west contains the verb go, which is a lexical item, and the adverb west, which also is a lexical item. There is nothing lexically strange whatsoever about this phrase, and that conditions its effect as a metaphor (unconventional reference, cf. Reddy (1969)). Though the real nature of metaphor formation is enigmatic, I see no fatal consequences of the working hypothesis that the ambiguity of go west, kick the bucket, etc. is established "before" the insertion of phonologically specified lexical items takes place. I suggest, therefore, that there is a subset of pre-lexical rules in syntax which take inputs like DIE and produce outputs like KICK THE BUCKET. The output from such a rule will be a syntactic tree of the same kind, but its internal organization may be slightly or highly deviant from the tree structure of the input. It is to the derived tree that lexical insertion applies. There would of course be many such rules, so that we may define a whole subcomponent of syntax which functions as an IDIOM GENERATOR.

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6) Morphology may decide on semantically doubtful cases. Cf. Weinreich (1966 p. 466): "of the two homophonous verbs ring (1. 'sound', 2. 'encircle'), it is to the former that the ring of ring the changes 'exhaust the variations' is related (cf. rang the changes, not ringed the changes)."

In the case of an idiom like <u>kick the bucket</u> the semantic input and output of the rule are quite different (although they share the property of being predicates). Pre-lexical idiom formation in grammar must mean that the "generator" takes a (derived) semantic representation and replaces it by another semantic representation.[7] If this is to make sense, the latter must also be a derived representation which essentially fulfills conditions imposed upon semantic trees by the syntactic rules that precede idiom formation. In the particular idiom <u>kick the bucket</u> the representation inserted by the rule may have to be marked as metaphorical (if some of the transformations that are blocked in metaphors are later), but otherwise it will be identical with the representation of the phrase KICK THE BUCKET in its literal sense. The funny effect of many such idioms is due to the fact that they can be understood both as derived directly from the underlying representation of their literal sense and, via idiom formation, from a quite different underlying representation. If this were merely a consequence of arbitrary homonomy of lexical entries it would be hard to explain why so many metaphors are syntactically perfectly well-formed on a literal reading.

If we now return to the surface verb <u>come</u> in its various idiomatic uses: <u>come about</u>, <u>come up</u> (<u>for discussion</u>), etc., these undoubtedly have more or less different underlying representations, but the assumption would be that the idiom generator replaces them by one common representation, viz. that of the "ordinary" verb <u>come</u>. If this representation forms a surface verb, lexical insertion gives <u>come</u>, but if the element CAUSE has been lifted and included in the verb, lexical insertion gives <u>bring</u>. There will be one lexical entry for each of these surface verbs, which explains the regularity of the

7) Semantically this will be a <u>mirror image</u> of the process suggested by Weinreich (1966 p. 453); also cf. Kiparsky (1970 p. 277).

alternation <u>come</u> - <u>bring</u>.

The treatment of the different idiomatic uses of <u>come</u> will thus differ from the treatment of homonyms like <u>race</u> 'species' and <u>race</u> 'competition'. In the former case a common representation is inserted by idiom formation, in the latter case two lexical entries happen to yield identical phonological representations. It goes without saying that a distinction between these two types of derivational coalescence is extremely difficult to make in actual practice, but that is a problem which has concerned lexicologists for a long time (within more or less different frameworks of description). I have nothing useful to say about this at present, but another example may help to illustrate the difference:

In Danish there is a surface verb <u>træde</u>$_1$ 'tread', which also occurs in many idiomatic expressions such as <u>træde i spinaten</u> 'put one's foot in it' (literally: 'step on the spinach'). There is another verb <u>træde</u>$_2$ 'thread (a needle)'. The two verbs <u>træde</u>$_1$ and <u>træde</u>$_2$ have more or less similar inflections, whereas the various idiomatic occurrences of <u>træde</u>$_1$ have absolutely identical inflections. This suggests that <u>træde</u>$_1$ is mastered as one verb listed at one place in the lexicon, whereas <u>træde</u>$_2$ is a different verb, which just happens to be homonymous with <u>træde</u>$_1$ in some of its forms. But of course the internalized lexicon may be organized differently depending on the input data one has received. I remember as a child hearing <u>træde</u>$_2$ in the infinitive in expressions like <u>jeg skal lige træde nålen</u> 'I just have to thread the needle'. My reaction was that this must be some funny idiom containing <u>træde</u>$_1$, and it was not until later that I realized that it is a different verb derived from <u>tråd</u> 'thread'. According to the model outlined above, this later statement would mean that some information was moved from the

"idiom generator" to the lexicon proper, partly because of
the acquisition of data which must belong in the latter
place.

4. The bipartite lexicon

According to the hypothesis outlined above a surface
verb like <u>come</u> in such expressions as <u>come about</u> is in-
serted via two kinds of rules: (i) idiom formation, which
changes the underlying predicate to the verb COME, and
(ii) lexical insertion, which provides this verb with a
phonological form. Both kinds of rules belong to the sub-
ject-matter that is traditionally conceived as "lexicon"
in broad sense. Thus, what the hypothesis actually implies
is that lexicon consists of two parts, one of which operates
on derived semantic representations to produce structures
that qualify as lexical entries,[8] whereas the other performs
the insertion of phonological material. For brevity I shall
refer to the former part as "lexicon$_1$", and to the latter
as "lexicon$_2$".

Now, at what point in grammar does lexical insertion
occur? Grosu (1971 p. 42) mentions the behaviour of <u>eject</u>
and <u>throw out</u> in favour of lexical insertion preceding cer-
tain post-cyclic transformations: "<u>throw out</u> and <u>eject</u> could
probably replace the same semantic configuration, but only
the former can be affected by the particle movement trans-
formation". If, however, there is a distinction between
lexicon$_1$ and lexicon$_2$ this argument may be interpreted as
valid for lexicon$_1$ if we define this subcomponent in a
wider sense so that its rules do not only replace semantic
material but also perform purely structural restatements of
syntactic trees. It may be supposed, for example, that the
rules of lexicon$_1$ take as their input some representation
of the meaning THROW OUT and produce as their output <u>either</u>
a verb $[_V$THROW OUT$]_V$ <u>or</u> verb plus particle $[_V$THROW$]_V$+OUT.

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8) The relationship of these alleged processes to the <u>word-
building</u> and <u>semantic extension</u> types of rules presented
in Kiparsky (1970 p. 266f) cannot be treated in this
paper.

If the former representation occurs as input to the rules
of lexicon$_2$ we may get the phonological specification of
eject; if the latter representation occurs we have two ap-
propriate lexical entries, and we get the phonological spe-
cification of _throw_ plus that of _out_. I.e. _throw out_ will
not be phonologically specified as a lexical item per se,
which is exactly the kind of economy that would be desir-
able. (This presentation is, of course, grossly over-
simplified. Firstly, _eject_ and _throw out_ are only syno-
nymous on one reading; secondly, _eject_ may perhaps have a
complex structure for some speakers of English, cp. that
its parts occur elsewhere: _emit_, _inject_.)

Under this assumption the rules of lexicon$_1$ are of
essentially the same kind as other transformational rules
of the syntactic component,[9] and they may not form a well-
defined subcomponent at all.

The particle movement argument obviously vanishes
as far as lexicon$_2$ is concerned, but if it is at all valid
it certainly shows that the rules of lexicon$_1$ must apply
before certain post-cyclic rules. The lexical insertion
rules of lexicon$_2$, on the other hand, may well apply at
a very late point in grammar, perhaps even at the very
end of the syntactic component. However, further con-
sideration of these problems requires a discussion of the
internal organization of lexical rules, which is outside
the scope of the present paper.

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9) Much of lexicon$_1$ will, of course, be highly idiosyn-
cratic, and it may seem awkward to include such mate-
rial amongst other syntactic rules. Green (1970 p. 81)
speaks directly against the approach outlined here:
"Unpleasant implications follow from the claim that there
is, for example, only one lexical entry _refuse_, and that
the other meanings are derived by syntactic processes
of incorporation or deletion of semantic constituents."-
I agree that many types of polysemy may be profitably
treated in terms of _related lexical entries_ (rather than
derivational "translation" into one entry), but I do not
see at the moment how this copes with the problems pre-
sented above.

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