## 10.4 α-, β-, and γ-Order

A translatory structure at any stage of derivation

(40)

(a) will be said to be in *α-order*
when the FIGURE-specifying nominal is in subject position (i.e., has not moved from its original underlying location);

(b) will be said to be in *β-order*
when the FIGURE-specifying nominal has moved out of subject position and no other nominal has moved into it;

(c) and will be said to be in *γ-order*
when the FIGURE-specifying nominal has moved out of subject position and some other (e.g., the GROUND- or 'second-GROUND'-specifying) nominal has moved into it.

When the FIGURE-specifying nominal has moved out of subject position -- or, *extraposed* -- it becomes preceded by a prepositional, usually either *WITH* or *OF* (as we shall represent them); the term *extraposition particle* will be applied to this prepositional or to the form which it keys in.

When some other nominal has moved into the vacated subject position -- or, *retroposed* -- any prepositional which had preceded it becomes deleted; or, by an alternative interpretation, only a *copy* of the nominal retroposes and, by transformations of more general application, the original nominal first pronominalizes and then (optionally) deletes together with any prepositional before it.

## 10.41 ... in Location Translatory Structures

An example from English of a location translatory structure passing through all three stages of (40) is sketched in (41). Here, extraposition takes place in (b); expletive *it* is inserted into the vacated subject position and the prepositional *WITH* is introduced before the FIGURAL nominal; *WITH* here keys in the preposition *with*. Retroposition takes place in (c); the original GROUND nominal pronominalizes and the whole DG phrase optionally deletes.

(41)

(a) bees (F) $BE_L$ (M) all-over> (D) the yard (G) aswarm (m)

(a') ⟹ bees (F) $\underbrace{BE_L \text{ (M) } \leftarrow\text{aswarm (m)}}_{\text{swarm (Mm)}}$ all-over> (D) the yard (G)

[bees were aswarm all over the yard]

[bees were swarming all over the yard]

(b) ⟹ $\underbrace{\text{---}}_{\text{it}}$ swarm (Mm) $\underbrace{\text{WITH}}_{\text{with}}$> bees (F) all-over> (D) the yard (G)

[it was swarming with bees all over the yard]

(c) ⟹ the yard (G) swarm (Mm) with> bees (F) all-over> (D) the yard (G)

$\left(\underbrace{\text{⟹ it}}_{\emptyset}\right)$

[the yard was swarming with bees all over it]

[the yard was swarming with bees]

In another locative English example sketched in (42), the *WITH* introduced in front of the extraposed FIGURE-specifying nominal keys in the particle *-ADJ* which, when moved to the rear of the nominal, either itself keys in a vadic adjectival suffix or, as in the present case, conflates with the nominal to yield an adjective.

(42)

(a) HEAT (F) $BE_L$ (M) in> (D) the room (G)
heat

[*heat was in the room; compare:

°there was too much heat in the room]

(b) ⟹ --- $BE_L$ (M) -ADJ> HEAT (F) in> (D) the room (G)
it ⟹ HEAT -ADJ
hot

[it was hot in the room]

(c) ⟹ the room (G) $BE_L$ (M) -ADJ> HEAT (F) in> (D) the room (G)
hot ø

[the room was hot]

In a third example sketched in (43), the extraposition particle *WITH* has several derivational options in the γ-order structure. It can key in the preposition *with*, as seen in ($43c_1$). It can key in the particle *-EN*, which (behaving like *-ADJ*) in turn usually keys in the ending(s) *(be-)...-ed* in English and the ending *-·t* in Latin (to take just one other language), as in *bearded* and *horned*, *barbātus* and *cornūtus* -- as seen in ($43c_2$). And it can conflate with $BE_L$ to

yield the vadic verb *have*, as seen in ($43c_3$). In the $\gamma$-order structures in (43), the original DIRECTIONAL and GROUND expressions have for clarity simply been deleted; where they do have the option of remaining, with the GROUND expression pronominalized, the illustrative sentences simply contain an additional parenthesized phrase.

(43)

(a) freckles (F) $BE_L$ (M) on> (D) the boy (G)

[*freckles were on the boy; compare:

°there were freckles on the boy]

(b) ⟹ --- $BE_L$ (M) WITH> freckles (F) on> (D) the boy (G)

($c_1$) ⟹ the boy (G) $BE_L$ (M) $\underbrace{\text{WITH>}}_{\text{with}}$ freckles (F)

[*the boy was with freckles (on him); but:

°I saw a boy $\underbrace{\text{(who was)}}_{\emptyset}$ with freckles (on him)]

($c_2$) ⟹ the boy (G) $BE_L$ (M) $\underbrace{\text{WITH>}}_{\text{-EN}}$ freckles (F)

⟹ $\underbrace{\text{freckles -EN}}_{\text{freckled}}$

[the boy was freckled]

($c_3$) ⟹ the boy (G) $\underbrace{BE_L \text{ (M) WITH>}}_{\text{have}}$ freckles (F)

[the boy had freckles (on him)]

For languages like Serbian, French, and (old) Spanish (where *haber* still meant 'to have') which express an existential sentence like

there are freckles on the boy

using a zero or expletive subject and *HAVE*, e.g., the equivalent of

(it) has freckles on the boy,

such a sentence is perhaps best derived from the β-order structure, as in (43b), by conflation of $BE_L$ and *WITH* into *HAVE*.

The same derivational steps which yield the γ-order and the conflation into *have* of the sentence in ($43c_3$), i.e.,

the boy had freckles on him,

or, e.g., of the homologous sentence

the box had a book in it

can be used to account for γ-order *have*-containing sentences which specify 'possession'. By this interpretation, the *have* in such sentences still arises by conflation from $BE_L$ and *WITH* and does not in itself specify any notion of 'possession'; this notion is specified, rather, by a bathic prepositional complex which, together with its nominal, has the option of deletion at the surface. The whole derivation is shown is (44); in (44a) is shown how the Russian sentence specifying 'possession' is based on the α-order structure.

(44)

(a) a gold pen (F) $BE_L$ (M) IN-the POSSESSION-OF> (D) the boy (G)
zolotoe pero byt' u + -gen mal'čik

[u mal'čika bylo zolotoe pero; rendered translation:
'by the boy was a gold pen']

(b) ⟹--- $BE_L$ (M) WITH> a gold pen (F) IN-the POSSESSION-OF> (D)
the boy (G)

(c) ⟹the boy (G) $BE_L$ (M) WITH> a gold pen (F)
have

[the boy had a gold pen (in the possession of him ⟹
in his possession)]

If the α-order structure in (43a) additionally contains *NOT*, the resulting γ-order structure does not only yield the simple negatives of the sentences in (43c), i.e. (skipping: *the boy wasn't with freckles),

the boy wasn't freckled
the boy didn't have freckles (on him).

Rather, if the *NOT* is after the verb, additional derivational options can be taken: the *NOT* can key in *UN-* and the *WITH* can, as before, key in *-EN*, as seen in ($45c_1$); the *NOT* and the *WITH* can conflate into the particle *-LESS*, which behaves like *-EN*, as seen in ($45c_2$); the *NOT* and the *WITH* can conflate into the preposition *WITHOUT*, as seen in ($45c_3$); and the $BE_L$, the *NOT*, and the *WITH* can all conflate into the verb *lack*,

as seen in ($45c_4$).

(45)

(a) freckles (F) $BE_L$ (M) NOT on> (D) the boy (G)

(b) ⟹ --- $BE_L$ (M) NOT WITH> freckles (F) on> (D) the boy (G)

($c_1$) ⟹ the boy (G) $BE_L$ (M) NOT WITH> freckles (F)
UN- -EN

⟹ UN- freckles -EN
unfreckled

[the boy was unfreckled]

($c_2$) ⟹ the boy (G) $BE_L$ (M) NOT WITH> freckles (F)
-LESS

⟹ freckles -LESS
freckleless

[the boy was freckleless]

($c_3$) ⟹ the boy (G) $BE_L$ (M) NOT WITH> freckles (F)
without

[the boy was without freckles (on him)]

($c_4$) ⟹ the boy (G) $BE_L$ (M) NOT WITH> freckles (F)
lack

[the boy lacked freckles (×on him)]

It might be correct to specify the relation of a part to a whole -- i.e., one form of so-called 'inalienable possession' -- by a translatory structure, as in (46a), or, as seems better, by a

particular closely-related structure, as in (46b), here shown with the translatory function-markings:

(46)

(a) the face (F) $BE_L$ (M) ON> (D) the boy (G)

(b) the face (F) BE (M) AS-PART-OF> (D) the boy (G)*

---

* The DIRECTIONAL expression in this structure is of the prepositional-complex form, P-N-P, seen elseshere (e.g., in *TO-the INSIDE-OF*). When this structure remains in its present α-order to yield a surface sentence, the first constituent of the prep-complex, *AS*, does not show up, as seen for the homologous structure in (i):

(i) a face (F) BE (M) AS-PART-OF> (D) a human (G)
Ø part of

i.e., a face is part of a human.

When the structure derives into γ-order to yield a surface sentence, the *AS* does show up, as seen in (ii):

(ii) a human (G) BE (M) WITH> a face (F) AS-PART-OF (D) a human (G)
have as part of him

i.e., a human has a face as part of him

Thus, the surface sentence in (i) is at least one case for which there is evidence that what appears to be a 'subject + copula + predicate nominal (*part of a human*)' construction is actually a quadripartite structure, as per our general formulation. It might be similarly concluded that such a 'predicate nominal' construction as

(iii) the man is a doctor

also derives from a quadripartite structure whose prose-effect can be rendered something like

(iv) the man is as a doctor

(compare the Russian sentences in which the 'predicate nominal' is in the instrumental case, as, e.g.,

on byl doktorom
he was a doctor (instr)

---

Either way, our present interest is in the circumstance where the 'part' nominal specifies the GROUND in one structure, and a 'part-whole' structure, such as in (46), stands as a relative clause on the nominal. In such a circumstance, the 'whole' nominal will be said to specify the *second-DIRECTIONAL*, or 'D′', as illustrated in (47) with the functional transvaluations indicated:

(47)

(a) ...the face (G) which (F) $BE_L$ (M) ON> (D⇒D′) the boy (G⇒G′)
Ø on

i.e., ...the face (G) on> (D′) the boy (G′)

(b) ...the face (G) which (F) BE (M) AS-PART-OF> (D⇒D′) the boy (G⇒G′)
Ø of

i.e., ...the face (G) of> (D′) the boy (G′)

Since we have been on sentences with freckles, another such may serve to illustrate how there can be an option as to which nominal retroposes in a γ-order structure (as per the characterization in (40c)). Thus,' in ($48c_1$), the whole GROUND expression retroposes, while in ($48c_2$), only the second-GROUND expression retroposes.

(48)

(a) freckles (F) $BE_L$ (M) on> (D) the face (G) of> (D′) the boy (G′)

(b) ⟹ ---$BE_L$ (M) WITH> freckles (F) on> (D) the face (G) of> (D′) the boy (G′)

($c_1$)⟹ the face (G) of> (D′) the boy (G′) $BE_L$ (M) WITH> freckles (F)
(the face (G) of> (D′) the boy (G′) = the boy's face; $BE_L$ (M) = have)
on> (D) the face (G) of> (D′) the boy (G′)
(the face (G) of> (D′) the boy (G′) = it)

[the boy's face had freckles on it]

($c_2$)⟹ the boy (G′) $BE_L$ (M) WITH> freckles (F)
($BE_L$ (M) = have)
on> (D) the face (G) of> (D′) the boy (G′)
(the boy (G′) = him; the face (G) of> (D′) the boy (G′) = his face)

[the boy had freckles on his face]

We now proceed to an example where, in β- and ϒ-order, the locative verb, the extraposition particle, and the extraposed FIGURAL nominal all conflate to yield simply a verb, as sketched in (49).

(49)

(a) PAIN (F) $BE_L$ (M) in> (D) the foot (G) of> (D′) me (G′)

(b) ⟹ --- $BE_L$ (M) WITH> PAIN (F) in (D) the foot (G) of> (D′) me (G′)
(--- = it; $BE_L$ (M) WITH> PAIN (F) = hurt; the foot (G) of> (D′) me (G′) = my foot)

[ˣit hurts in my foot; compare:

(it hurts where? ⟹ ) °where does it hurt?]

$(c_1)$ ⟹ the foot (G) of> (D′) me (G′) $\underbrace{BE_L\ (M)\ WITH>\ PAIN\ (F)}_{hurt}$

[°my foot hurts]

$(c_2)$ ⟹ I (G′) $BE_L$ (M) WITH> PAIN (F) in> (D) the foot (G)

[*I hurt in the foot (×...in my foot); compare

(you hurt where? ⟹ ) °where do you hurt?]

For the deep structures in (49c) there is of course the alternative derivational option of inserting a preposition onto *WITH* and a noun onto *PAIN:*

(50)

$(c_1)$ ⟹ the foot (G) of> (D′) me (G′) $BE_L$ (M) $\underbrace{WITH>}_{in}$ $\underbrace{PAIN}_{pain}$ (F)

[°my foot is in pain]

$(c_2)$ ⟹ I (G′) $BE_L$ (M) $\underbrace{WITH>}_{in}$ $\underbrace{PAIN}_{pain}$ (F) in> (D) the foot (G)

[*I am in pain in the foot (×...in my foot); compare:

= (you are in pain where ? ⟹ ) °where are you in pain?]

For an additional example of the 'PAIN' type, i.e., where, in the β- and γ-order, there are the options both for the insertion of a preposition and noun and for conflation into a verb, we present a derivational sketch for *FIRE* in (51):

(51)

(a) FIRE (F) $BE_L$ (M) all over> (D) the fields (G)

($b_1$)⟹ ---$_{\text{it}}$ $BE_L$ (M) WITH>$_{\text{on a-}}$ FIRE$_{\text{fire}}$ (F) ALL OVER> (D) the fields (G)

[ˣit's on fire/afire all over the fields]

($b_2$)⟹ ---$_{\text{it}}$ $BE_L$ (M) WITH> FIRE$_{\text{burn}}$ (F) all over> (D) the fields (G)

[ˣit's burning all over the fields]

($c_1$)⟹ the fields (G) $BE_L$ (M) WITH>$_{\text{on a-}}$ FIRE$_{\text{fire}}$ (F)

[ᵒthe fields are on fire/afire]

($c_2$)⟹ the fields (G) $BE_L$ (M) WITH> FIRE$_{\text{burn}}$ (F)

[ᵒthe fields are burning]

All preceding examples have illustrated the variety of derivational courses which the extraposition particle and the extraposed FIGURAL nominal can take in non-α-order. To round out the range of this variety, we present an example with the verbal expression *be-missing;* here, the extraposition particle deletes, so that the extraposed FIGURAL nominal comes to stand as direct object to the verbal expression. As for this particular verbal expression itself, it may be assumed to arise by conflation in something like the following

manner:

(52)

(a) ...be$_L$ at a point which is not the point (at which it belongs) which is$_L$ in ...

(b) ...be$_L$ elsewhere than (where it belongs) in ...

(c) ...be missing from ...

A sketch of the α-order structure, with this expression, deriving into a γ-order structure is as follows:

(53)

(a) a piece (F) be-missing from> (D) the puzzle (G)

[°a piece is missing from the puzzle]

(b) ⟹ --- be-missing OF> a piece (F) from> (D) the puzzle (G)

(c) ⟹ the puzzle (G) be-missing $\underset{\emptyset}{\underbrace{\text{OF}}}$> a piece

[°the puzzle is missing a piece]*

---

* Although its semantic relatedness is questionable, an additional example syntactically homologous with this derivation is:

(i)

(a) greater acclaim (F) be-due $\left(\underset{\emptyset}{\underbrace{\text{to}}}\right)$> (D) him (G)

[greater acclaim is due to him]

[greater acclaim is due him]

(b) he (G) be-due $\underset{\emptyset}{\underbrace{\text{WITH}}}$> greater acclaim (F)

[he is due greater acclaim]

A close relative of this particular example can serve to show how an ADVENTEE-specifying nominal which appears in subject position may also be interpreted (alternatively to the account given in section 5.4) as arriving there by retroposition in γ-order:

(54)

(a) a piece (F) be-missing from> (D) the puzzle (G) on (δ) me (A)

[*a piece is missing from the puzzle on me]

(b) ⟹ --- be-missing OF> a piece (F) from> (D) the puzzle (G)
on> (δ) me (A)

(c) ⟹ I (A) be-missing $\underset{\emptyset}{\underset{\sim}{\text{OF}}}$> a piece (F) from> (D) the puzzle (G)

[°I am missing a piece from the puzzle]

While we are in this same set of examples, we can use it to illustrate how pronominalization of a repeated nominal, and then deletion of the prepositional phrase in which the pronominalized form occurs -- this to be termed *meta-deletion* -- take place:

(55)

(a) a piece of $\underset{1}{\text{the puzzle}}$ is missing from $\underset{2}{\text{the puzzle}}$

by pronominalization, and then meta-deletion, of 1:

$^{x}$a piece of it is missing from the puzzle

$^{o}$a piece is missing from the puzzle

by pronominalization, and then meta-deletion, of 2:

$^{o}$a piece of the puzzle is missing from it

$^{o}$a piece of the puzzle is missing

(b) the puzzle is missing a piece of $\underset{1}{\text{the puzzle}}$ from $\underset{2}{\text{the puzzle}}$

by pronominalization of 1 and 2:

$^{*}$the puzzle is missing a piece of $\underset{1}{\text{it}}$ from $\underset{2}{\text{it}}$

by meta-deletion of 1:

$^{x}$the puzzle is missing a piece from it

by meta-deletion of 2:

$^{o}$the puzzle is missing a piece of it

by meta-deletion of 1 and 2:

$^{o}$the puzzle is missing a piece

(c) I am missing a piece of $\underset{1}{\text{the puzzle}}$ from $\underset{2}{\text{the puzzle}}$

by pronominalization, and then meta-deletion of 1:

*I am missing a piece of it from the puzzle

°I am missing a piece from the puzzle

by pronominalization, and then meta-deletion, of 2:

ˣI am missing a piece of the puzzle from it

°I am missing a piece of the puzzle*

---

* Similar principles of pronominalization and deletion can be observed for a verb phrase:

(i) °let whoever wants to $\underset{1}{\text{go there}}$, $\underset{2}{\text{go there}}$

by pronominalization, and then deletion, of 1:

°let whoever wants to do so, go there

°let whoever wants to, go there

by pronominalization of 2:

°let whoever wants to go there, do so

---

With the preceding variety of examples set forth, we can now present in tabular form the particular insertions onto, and conflations involving, the extraposition particle in a non-α-order translatory structure:

(56)

with>

in>

on>

a->

Ø>

-ADJ>

-EN>

-LESS>

V (M) WITH>

V (M) WITH> N (F)

## 10.42 ...in Motion Translatory Structures taking *WITH*

We now turn to examples of motion translatory structures as these derive through the α-, β-, and γ-orders, taking *WITH* in extraposition. We start with an English example for which the extraposition particle *WITH* keys in the vadic preposition *with*. The less-than-colloquial word *suffuse* has been selected as the verb for this first example because more colloquial words, as will be seen later, do not participate in as full a paradigm of acceptable sentences.

(57)

(a) perfume (F) MOVE (M) ⟨THROUGH (D) ⟨'MANNER'
(suffuse)
through⟩ (D) the air (G)

[perfume (slowly) suffused through the air]

(b) ⟹ --- (it) MOVE (M) ⟨THROUGH (D) ⟨'MANNER' WITH⟩ (with) perfume (F)
(suffuse)
through⟩ (D) the air (G)

[*it (slowly) suffused with perfume through the air]

(c) ⟹ the air (G) MOVE (M) ⟨THROUGH (D) ⟨'MANNER' WITH⟩ perfume (F)
(suffuse) (with)

[the air (slowly) suffused with perfume]

It should be noted that, in α-order, a structure containing *suffuse* can also undergo transitivization (i.e., deletion of the DIRECTIONAL prepositional):

(58)

(a) perfume (F) MOVE (M) ⟨THROUGH (D) ⟨'MANNER'
suffuse
through⟩ (D) the air (G)
∅

[perfume (slowly) suffused the air]

Such a sentence will be termed a *transitivized α-order structure* and, introducing an additional symbolism, will be said to be in '$\alpha_t$-order'.*

---

* These terms can now, of course, be retroactively applied to such previously-seen sentences as

he walked the pier (in 30 minutes)

and the Russian original of

'the satellite circum-flew the earth (in 3 hours)'.

---

We now consider an example much like that with *suffuse* but for which the γ-order structure additionally may transitivize -- i.e., the extraposition particle *WITH* here has the option of deleting so that the extraposed FIGURAL nominal comes to stand as direct object to the verb. Such a form, here occurring in ($59c_2$), will be termed a *transitivized γ-order structure* and will be said to be in '$\gamma_t$-order'.*

---

* These same terms can now be retroactively applied to the homologous locative translatory structures, as already exemplified by

the puzzle is missing a piece

---

(59)

(a) hot water (F) MOVE (M) ‹FORTH (D) ‹'MANNER'
spout

from› (D) the fissure (G)

[hot water spouted from the fissure]

(b) ⟹ --- MOVE (M) ‹FORTH (D) ‹'MANNER' WITH› hot water (F)
spout

from (D) the fissure (G)

($c_1$) ⟹ the fissure (G) MOVE (M) ‹FORTH (D) ‹'MANNER'
spout

WITH› hot water (F)
with

[ˣthe fissure spouted with hot water; compare the Yiddish:
ᵒder špalt šprict mit heyse vaser]

($c_2$) ⟹ the fissure (G) MOVE (M) ‹FORTH (D) ‹'MANNER'
spout

WITH› hot water (F)
Ø

[the fissure spouted hot water (from it)]

An example similar to that with *spout* but for which the γ-order structure *must* transitivize appears in (60):

(60)

(a) dust (F) MOVE (M) <INTO-ACCUMULATION (Dg) over> (D) the ledger (G)
accumulate

[dust accumulated over the ledger]

(b) ⟹ --- MOVE (M) <INTO-ACCUMULATION (Dg) WITH> dust (F)
accumulate

over> (D) the ledger (G)

(c) ⟹ the ledger (G) MOVE (M) <INTO-ACCUMULATION (Dg) WITH> dust (F)
accumulate Ø

[the ledger accumulated dust (over it)]

Continuing now to illustrate the range of derivational courses that an extraposed FIGURAL nominal and its particle can take, we present the example in (61) for which the extraposition particle is *WITH*, but where this, the extraposed FIGURAL nominal, and the MOTIVE expression all conflate to yield a single surface verb. [This verb has additional DIRECTIONAL and GROUND expressions conflated within it, but for simplicity these are only indicated as 'MANNER']:

(61)

(a) BLOOD (F) MOVE (M) <FORTH (D) <'MANNER'
blood — come, flow

from> (D) the nose (G) of> (D′) him (G′)
his nose

[×blood is coming out of / flowing from his nose;
°there's blood coming out of / flowing from his nose]

(b) ⟹ --- MOVE (M) <FORTH (D) <'MANNER' WITH> BLOOD (F)
it — bleed

from> (D) the nose (G) of> (D') him (G')
his nose

[*it is bleeding from his nose]

($c_1$)⟹ the nose (G) of> (D′) him (G′)
his nose

MOVE (M) <FORTH (D) <'MANNER' WITH> BLOOD (F)
bleed

[his nose is bleeding]

($c_2$)⟹ he (G′) MOVE (M) <FORTH (D) <'MANNER' WITH> BLOOD (F)
bleed

from> (D) the nose (G)

[he is bleeding from the nose]

This particular example, containg a bathic FIGURAL noun destined for conflation, can form the basis for illustrating multiple specification. If, in the α-order structure in (61a), the FIGURE is multiply specified by the pair of concurrent nominals

BLOOD (F) ...,

a green ichor

and, to make the example workable, the end portion is changed to

...from> (D) the wounds (G) of> (D′) the Martlan (G′),

then two different post-α structures may be derived. In the one, only the bathic noun extraposes, the vadic nominal remaining to fill the subject position:

a green ichor (F) MOVE (M) <FORTH (D) <'MANNER' WITH> BLOOD (F)...

Refining our previous treatment of this stage, we now assume that the extraposition particle and the extraposed noun, as a unitary phrase, assatellate to the verb before conflation -- now understood as an operation performed simply on the verb complex:

a green ichor (F) MOVE (M) <FORTH (D) <'MANNER' <[WITH> BLOOD (F)]...

bleed

This particular structure, which may be said to be in 'αβ -order', then gives rise to the sentence

a green ichor bled from the Martlan's wounds.

In the post-α structure derived by the other route, both of the concurrent FIGURAL expressions extrapose:

--- MOVE (M) ⟨FORTH (D) ⟨'MANNER' WITH⟩ BLOOD (F) ...
WITH⟩ a green ichor

Such a structure may be said to be in 'ββ-order'. Assatellation of the bathic extraposed phrase now leaves the vadic one standing along in extrapositional location:

--- MOVE (M) ⟨FORTH (D) ⟨'MANNER' ⟨[WITH⟩ BLOOD (F)] WITH⟩
bleed with, &
a green ichor (F) ...

With the retroposition of, alternatively, the GROUND and the second-GROUND expressions, the following γ-order and $\gamma_t$-order sentences result:

the Martlan's wounds bled (with) a green ichor
the Martlan bled (with) a green ichor from his wounds.

In the light of the 'bleed' examples, it can be seen that the treatment in Part I of the FM verb *rain* was a simplification, now to be understood as involving extraposition and an extraposition particle:

αα: RAIN (F) MOVE (M) into⟩ (D) the bedroom (G)

ββ: --- MOVE (M) WITH⟩ RAIN (F) into⟩ (D) the bedroom (G)

⟹ --- MOVE (M) ⟨[WITH⟩ RAIN (F)] into⟩ (D) the bedroom (G)
it rain

With the FIGURE multiply specified by a concurrent vadic nominal, the same two types of post-α structure as described in the 'bleed' case can be derived:

αβ: blood rained onto the land

ββ: it rained (with) blood onto the land.*

---

* It can be argued that even when there is just the bathic FIGURAL noun, it is only a copy of this which is involved in conflation, the original either remaining in subject position and then pronominalizing or extraposing and then meta-deleting. These deep processes can be represented in prose-effect form for the 'rain' case as:

rain rained into the bedroom
it

it rained (with) rain into the bedroom,
Ø

and similarly for the 'bleed' case as

he bled (with) blood from his nose.
Ø

The so-called 'cognate object' of traditional grammar (which should have also discussed a 'cognate subject' for sentences like *rain rained down onto the land*) can here be accounted for simply by the non-deletion of the original FIGURAL noun.

---

Another verb which derives like *bleed* is *shine*, as illustrated in the following three sketches:

(62)

αα: LIGHT (F) MOVE (M) THROUGH> (D) my window (G)
the sunlight

αβ: the sunlight (F) MOVE (M) ⟨[WITH> LIGHT (F)]
shine
THROUGH> (D) my window (G)
through

[the sunlight is shining through my window]

(63)

αα: LIGHT (F) MOVE (M) ⟨FORTH (D) FROM⟩ (D) the sun (G)
light

αβ: light (F) MOVE (M) ⟨FORTH (D) ⟨[WITH⟩ LIGHT (F)]
shine
FROM⟩ (D) the sun (G)
from

[×light is shining from the sun]

(64)

α: LIGHT (F) MOVE (M) ⟨FORTH (D) FROM⟩ (D) the sun (G)

γ: the sun (G) MOVE (M) ⟨FORTH (D) ⟨[WITH⟩ LIGHT (F)]
shine

[the sun is shining]

We now consider the circumstance where a motion translatory structure is embedded in an effective matrix.*

---

* In these considerations, the BY-clause will, for simplicity, be of that minimally-specific sort -- i.e., something like

BY (the 'AGENT's')$_e$ACTING ON the 'FIGURE' WITH SOMETHING (I) --

which leaves no trace at the surface.

---

While still embedded as a distinct constituent, the translatory structure may remain in α-order or derive to β- or γ-order. After the EFFECT-TO derivation, whatever nominal had been in subject position in front of the autic verb comes to be in direct-object position after the effected

verb, and the AGENT-specifying nominal now occupies the subject position; the derived effective structure which results will now correspondingly be said to be in $\alpha'$-, $\beta'$-, or $\gamma'$-*order*. We now illustrate this process for the 'suffuse' example:

(64)

(a) I (A) EFFECT (ρ) TO> (δ) it ($s_T$), that

perfume (F) suffuse (MDm) through> (D) the air (G)

⟹ I (A) $_e$suffuse (ρδMDm) > perfume (F) through> (D) the air (G)

[I suffused perfume through the air] (α'-order)

(b) I (A) EFFECT (ρ) TO> (δ) it ($s_T$), that

(it) suffuse (MDm) with> perfume (F) through> (D) the air (G)

⟹ I (A) $_e$suffuse (ρδMDm) > (it) with> perfume (F) through> (D) the air (G)

[*I suffused (it) with perfume through the air] (β'-order)

(c) I (A) EFFECT (ρ) TO> (δ) it ($s_T$), that

the air (G) suffuse (MDm) with> perfume (F)

⟹ I (A) $_e$suffuse (ρδMDm) > the air (G) with> perfume (F)

[I suffused the air with perfume] (γ'-order)

It can be noted here that a transitivized autic structure is in principle unable, at least in English, to undergo the EFFECT-TO derivation, since if this happened there would result a structure with two direct objects in a row. This is to say, using our system of symbols, that for structures in $\alpha_t$- or $\gamma_t$-order, there are no corresponding structures in $\alpha_t$'- or $\gamma_t$'-order; these latter two symbols

in fact have no acceptable reference. The lack of an effective correspondent for $\alpha_t$-order can be illustrated with our previous 'suffuse' example:

(65) I (A) EFFECT TO> it, that perfume (F) suffuse > the air (G)

$\Longrightarrow$ I (A) $_e$suffuse > perfume (F) > the air (G)

[*I suffused perfume the air]

The lack of an effective correspondent for $\gamma_t$-order would be best illustrated with our previous 'spout' example except that this verb cannot occur in any effective structures altogether. We accordingly switch to the similar verb *squirt*, which has no such restriction. Thus, this verb's regular autic $\alpha$-order form

water squirted from the syringe

has an effective $\alpha'$-order correspondent

I squirted water from the syringe,

but its autic, transitivized $\gamma_t$-order form

the syringe squirted water (from it)

has no effective $\gamma_t'$-order correspondent:

*I squirted the syringe water (from it).

The verb *bleed*, used earlier to exemplify the type of

translatory structure which conflates the *MOVE* verb and the extraposed FIGURAL nominal, cannot be used to exemplify such a structure embedded in an effective matrix (*I bled him from the nose). Accordingly, we switch to another verb:

(66)

αα′: I EFFECT TO> it, that

a CORK MOVE ‹in into› the bottle

a balsa plug

αβ′: I EFFECT TO it, that

a balsa plug MOVE ‹in ‹[with› a CORK] (cork) into› the bottle

⟹ I $_{e}$cork > a balsa plug into› the bottle

[*I corked a balsa plug into the bottle]

γ′: I EFFECT TO it, that

the bottle MOVE ‹in ‹[WITH› a CORK] (cork) WITH› (with) a balsa plug

⟹ I $_{e}$cork > the bottle with› a balsa plug

[I corked the bottle with a balsa plug]

We now present in tabular form for a number of examples the various structural orders which they can (and cannot) derive into. For each example we show what the structure is (or would be, if one existed) for α- and γ-order, and for the effective correspondents of

these, i.e., α′- and γ′-order. Each example, as it happens, also has an existent structure for one or the other of the transitivized $\alpha_t$- and $\gamma_t$-orders, and this is also shown; of course, no effective correspondent of this is possible, and none is shown. It can be seen by looking at the table why *suffuse* was first selected to represent the examples which introduce *WITH* in extraposition: none of the other verbs participate in as great a number of structural orders.

(67)

(a)
α: perfume suffused through the air
$\alpha_t$: perfume suffused the air
γ: the air suffused with perfume

α′: I suffused perfume through the air
γ′: I suffused the air with perfume

(*slowly* can be inserted in these sentences to aid the reading)

(b)
α: mud splashed all over her dress
$\alpha_t$: ×mud splashed her dress
$*_\gamma$: *her dress splashed with mud

α′: I splashed mud all over her dress
γ′: I splashed her dress with mud

(*when I drove by* can be appended to these sentences to aid the reading)

(c)
α: a thorn stuck into my finger
$\alpha_t$: a thorn stuck my finger
$*_\gamma$: *my finger stuck with a thorn

α′: I stuck a thorn into my finger
γ′: I stuck my finger with a thorn

(*as I brushed past the bush* can be appended to these sentences to aid the reading)

(d) $\alpha$: a twig poked into my back

$\alpha_t$: ˣa twig poked my back

$*_\gamma$: *my back poked with a twig

$\alpha'$: she poked a twig into my back

$\gamma'$: she poked my back with a twig

(e) $*_\alpha$: *the needle pierced through her earlobe

$\alpha_t$: the needle pierced her earlobe

$*_\gamma$: *her earlobe pierced with the needle

$*_{\alpha'}$: *he pierced the needle through her earlobe

$\gamma'$: he pierced her earlobe with the needle

(f) $\alpha$: hailstones pelted against the window

$\alpha_t$: hailstones pelted the window

$*_\gamma$: *the window pelted with hailstones

$*_{\alpha'}$: *the kids pelted stones against the window

$\gamma'$: the kids pelted the window with stones

(*steadily...during the storm* can be added to the first three sentences to aid the reading)

(g) $*_\alpha$: *a ball hit into the man

$\alpha_t$: a ball hit the man

$*_\gamma$: *the man hit with a ball

$*_{\alpha'}$: *the kid hit a ball into the man

$\gamma'$: the kid hit the man with a ball

(h) $*_{\alpha}$: *water filled into the tub

$\alpha_t$: water filled the tub

$\gamma$: the tub filled with water

$*_{\alpha'}$: *I filled water into the tub

$\gamma'$: I filled the tub with water

(*slowly* can be inserted in these sentences to aid the reading)

(i) $*_{\alpha}$: *sand covered over> the plaque

$\alpha_t$: sand covered the plaque

$*_{\gamma}$: *the plaque covered with sand

$*_{\alpha'}$: *I covered sand over the plaque

$\gamma'$: I covered the plaque with sand

(*gradually* can be inserted in these sentences to aid the reading)

(j) $\alpha$: water squirted from the syringe

$\gamma$: ×the syringe squirted with water

$\gamma_t$: the syringe squirted water (from it)

$\alpha'$: I squirted water from the syringe

$*_{\gamma'}$: *I squirted the syringe with water

(k) $\alpha\beta$: a green ichor bled from his wounds

$\gamma$: his wounds bled with a green ichor

$\gamma_t$: his wounds bled a green ichor

$*_{\alpha\beta'}$: *I bled a green ichor from his wounds

$*_{\gamma'}$: *I bled his wounds with a green ichor*

---

* It may be noticed from these examples that there is a close relation between the two structural orders which have the G nominal as direct object, i.e., between $\alpha_t$ and $\gamma'$. In particular, a verb which has an $\alpha_t$ structure also has a $\gamma'$structure even though it lacks a $\gamma$ structure.

---

As the above example sets attest, modern English is not very rich in acceptable $\beta$-order structures. So far only the marginal

it rained with blood onto the land

has been adduced to exemplify this order for the autic motion case. Sentences containing *pound* can additionally be adduced to exemplify this order for the effective motion case:

(68)

$\alpha$: ˣmy shoe pounded on the table
$\alpha_t$: ˣmy shoe pounded the table
} (possible in the right context)

$*_\beta$: *it pounded with my shoe on the table
*it pounded on the table with my shoe

$*_\gamma$: *the table pounded with my shoe

$\alpha'$: I pounded my shoe on the table

$\beta'$: I pounded [it] with my shoe on the table
I pounded [it] on the table with my shoe

$\gamma'$: I pounded the table with my shoe

It can now be seen that the sentences containing *swing* which were used in Part I fit neatly in the paradigm of structural orders which has been developed thus far. In particular, the sentences used in Part I are the α-, α'-, and β'-order structures now shown tabularly in their proper paradigmatic locations in (69); the '*WITH*-phrase'of Part I is now of course seen as the extraposed FIGURAL nominal and its extraposition particle.

(69)

| | |
|---|---|
| α: | the boy's arm swung into the aerial |
| $*\alpha_t$: | *the boy's arm swung the aerial |
| *β: | *it swung with the boy's arm into the aerial |
| | *it swung into the aerial with the boy's arm |
| *γ: | *the aerial swung with the boy's arm |
| | |
| α' | the boy swung his arm into the aerial |
| β' | the boy swung [it] with his arm into the aerial |
| | the boy swung [it] into the aerial with his arm |
| *γ' | *the boy swung the aerial with his arm |

It may be recalled that some of the verbs we have dealt with above have a D satellite inherently conflated into them. For example, *suffuse* has ⟨*THROUGH(OUT)* incorporated within it. By virtue of being thus incorporated, such a D satellite is, so to speak, tucked out of the way and does not enter into any syntactic intricacies. There is also a way for an English D̄ satellite to be overt, i.e., not incorporated,

and still be tucked out of the way: viz., when it is a prefixed satellite, syntactically cognate with German's 'inseparable prefixes'. There are few good examples to draw on for illustration here, but one which may serve, with some marginalities, involves the verb *overgrow:*

(70) [in these sentences, 'it' may be taken to refer to *the terrace*]

| | | |
|---|---|---|
| $*\alpha$: | ivy grew ⟨over- over⟩ it | [*ivy overgrew over it] |
| $\alpha_t$: | ivy grew ⟨over- $\underbrace{\text{over}}_{\emptyset}$⟩ it | [ivy overgrew it] |
| $\gamma$: | it grew ⟨over- with⟩ ivy | [it overgrew with ivy] |
| $*\alpha'$: | I $_e$grew ⟨over- > ivy over⟩ it | [*I overgrew ivy over it] |
| $\gamma'$: | I $_e$grew ⟨over- > it with⟩ ivy | [I overgrew it with ivy] |

Syntactic complexities are encountered when we come to the case where the D satellite is overt and postposed, syntactically cognate with German's 'separable prefixes', as illustrated in (71) with *run through*. In this case, it either happens that the D satellite and the D preposition conflate to give a D satellite-preposition, as in the $\alpha$ and $\alpha'$ sentences of (71), or that a deletion of the D preposition takes place, thereby rendering the G nominal a direct object and, when this is a pronoun, forcing the D satellite to the right of it, as in the $\alpha_t$ and $\gamma'$ sentences of (71). Furthermore, it can be seen that an extra derivational step is necessary for the $\alpha'$sentence. By the EFFECT-TO derivation, the old subject nominal *my sword* becomes the direct object of the verb-complex, but then the D satellite in that complex must

move out of it, being 'attracted' rightwards to the D preposition, with which it conflates to yield the D satellite-preposition:

(71)

α: my sword ran ‹<u>through</u> <u>through</u>› him
through

[my sword ran thróugh him]

$\alpha_t$: my sword ran ‹through <u>through</u>› him
Ø

[my sword ran him thróugh]

*γ: he ran ‹through with› my sword

[*he ran thróugh with my sword]

α′: I $_e$ran ‹through › my sword through› him

⟹ I $_e$ran › my sword ‹<u>through</u> <u>through</u>› him
through

[I ran my sword thróugh him]

γ′: I $_e$ran ‹through › him with› my sword

[I ran him thróugh with my sword]

This particular verb-complex, *run through*, happens also to have an acceptable β′ form. That is, on the basis of the unacceptable β form:

*β: --- ran ⟨through through⟩ him with⟩ my sword
it through

[*it ran thróugh him with my sword]

there derives:

β′: I e ran ⟨through > --- through⟩ him with⟩ my sword

⟹ I e ran > --- ⟨through through⟩ him with⟩ my sword
through

[I ran thróugh him with my sword].

Two additional examples which behave like *run through* are *run over* and *paint over*, as shown in (72) and (73):

(72)

α: a truck ran óver him

$\alpha_t$: a truck ran him óver

*γ: *he ran óver with a truck

α′: the mobster ran a truck over him*

β′: the mobster ran óver him with a truck

γ′: the mobster ran him óver with a truck

(73) [in these sentences, 'it' may be taken to refer to *the old design*]

α′: I painted a new design over it*

β′: I painted óver it with a new design

γ′: I painted it óver with a new design

* Since, in these α′ sentences, the *over* is likely to lose primary stress to the nominal preceding it, it is not easily recognized as a satellite-preposition, i.e., as ‹*over*›; however, if the preceding nominal is pronominalized, stress stays on the *over:*

the mobster ran it óver him
I painted one óver it.

The perhaps most noteworthy aspect, vis-à-vis English, of the *run through, run over,* and *paint over* paradigms is that in the forms which have deleted the D preposition (with the GROUND nominal becoming the direct object) -- viz., the $\alpha_t$- and γ′-orders -- there remains a D satellite which overtly specifies the DIRECTIONAL. In most English paradigms, there is no such D satellite at the surface. However, one may be hypothesized to be present at a deeper level -- whether as a copy of a D satellite (to be) incorporated in a lexical verb or as the sole bearer of DIRECTIONAL information -- and then to delete. Thus, for many of the verbs in (67), the $\alpha_t$ and γ′ forms shown can be hypothesized to derive from deeper forms containing a D satellite:

(74)

(a) $\alpha_t$: *perfume suffused it thróugh(out) ('it' = the room)
γ′: *I suffused it thróugh(óut) with perfume

(b) $\alpha_t$: *mud splashed it óver ('it' = her dress)
γ′: *I splashed it óver with mud

(74)

(c) $\alpha_t$: *a thorn stuck it ín ('it' = my finger)

$\gamma'$: *I stuck it ín with a thorn

(d) $\alpha_t$: *a twig poked it ín ('it' = my back)

$\gamma'$: *she poked it ín with a twig

(e) $\alpha_t$: *the needle pierced it through ('it' = her earlobe)

$\gamma'$: *he pierced it through with the needle

Just as we devised in (15) the D preposition, and thence the D satellite, *alength* to appear in the deep form

$\alpha_t$: *he walked the pier alength (in 5 minutes)

and then to delete for the surface form

$\alpha_t$: he walked the pier (in 5 minutes)

so we now devise the D preposition and satellite *alide*, meaning 'into collision (with)', to appear in the deep forms of (67f and g):

(74) [continued]

(f) $\alpha_t$: *hailstones pelted it alíde ('it' = the window)

$\gamma'$: *the kids pelted it alíde with stones

(g) $\alpha_t$: *a ball hit him alíde ('him' = the man)

$\gamma'$: *the kid hit him alíde with a ball,

and then to delete for the surface forms. And, of course, as will be discussed later, the verb in (67h), *fill*, as in the case of *run through*, *does* have a D satellite at the surface as well as hypothetically at a deeper level:

(74) [continued]

(h) $\alpha_t$: water filled it fúll ('it' = the tub)

$\gamma'$: I filled it fúll with water
full-of

In the structural orders we have been discussing -- in particular in $\gamma'$-order -- it is of particular interest when a single lexical verb can take several different overt D satellites. Where such a circumstance holds for the $\gamma'$ forms, there is as much flexibility as, say, English has with its $\alpha'$ forms by using different D prepositions while keeping the MOTIVE+MANNER-specifying verb constant -- rather than the inflexibility of having to switch to a new MOTION+DIRECTIONAL+MANNER-specifying verbal conflate for every shift of DIRECTIONAL notion. Unfortunately, English *is* poor in such a system for its $\gamma'$ form. In order to illustrate as much of a system as English does have, e.g., with the MOTIVE+MANNER-specifying verbs *lay* and *set*, we have to present largely marginal forms and then resort to hypothetical forms to flesh out the range:

(75) [all forms are $\gamma'$:]

I inlaid it with silver

I overlaid it with silver

I underlaid it with silver

(75) *I circumlaid it with silver

*I interlaid them with silver

(76) [all forms are γ′:]

×I set it in with gems

*I set it over with gems

*I set it under with gems

I set it around with gems
about

*I set them between with gems

Some other languages, however, do have a living system of γ′ structures taking a range of D satellites.

This is illustrated for Russian in (77), where a single verb-root -- with a basic meaning renderable as 'to stick (a pointed object)' -- is shown taking three different D satellites in a set of γ′ sentences (curiously, a Russian verb-root cannot acceptably take the satellite *v-*, 'in', in a γ′ sentence, but such a sentence is shown anyway for comparative purposes). Below each translated Russian sentence is given first a syntactically homologous English sentence -- i.e., a γ′ structure with the verb *stick* taking a D satellite -- which is instructive for the purpose of comparison but is unacceptable, and then an acceptable English sentence which contains a distinct lexical verb with an incorporated D satellite:

(77)

(a) *ya votknul mužčinu nožom
I in-stuck the man (acc) a knife (instr)

*I stuck the man in with a knife

I stabbed the man with a knife

(b) ya protknul mužčinu štykom
I through-stuck the man (acc) a bayonet (instr)

*I stuck the man through with a bayonet

I pierced the man with a bayonet

(c) ya obtykal gr'adku kol'yami
I circum-stuck the flower bed (acc) pales (instr)

*I stuck the flower bed around with pales

I staked the flower bed with pales

(d) ya istykal dosku gvozd'ami
I throughout-stuck the board (acc) nails (instr)

*I stuck the board all over with nails

I studded the board with nails

Notice that while English, lacking a flexible $\gamma'$ + D satellite system, must in the $\gamma'$ sentences of (77) resort to four different lexical verbs, it can, having a flexible $\alpha'$+ D preposition (or satellite-preposition) system, keep the single verb *stick* in the four corresponding $\alpha'$ sentences:

(78)

(a) I stuck a knife into the man

(b) I stuck a bayonet through the man

(c) I stuck (in) pales around the flower bed

(d) I stuck (in) nails all over the board*

---

* To be more accurate, it must be noted that *stick*, like its Russian correspondent, is actually an FMDG verb whose meaning can be represented as 'for a pointed linear object to move axially into yielding material', and which therefore has the D satellite ⟨*IN* inherently incorporated within it. Accordingly, the sentence in (78c), for one, must be understood as derived from a temporal structure something like

(i) it, that pales MOVEd to around the flower bed

OCCURred GNIRUD

it, that SHARPLINOBJ MOVEd AXIALLY INTO YIELDMAT

[the pales] stuck (in) [the flower bed]

Thus, the most prominent D preposition in (78c), viz., *around*, actually arises from the matrix translatory structure in (i), not from the one leading to the *stick* verb; the same can be said about the origin of the D satellite ⟨*ob-* in the Russian γ′ sentence in (77c).

---

Yiddish has the same flexible system as Russian, additionally including the D satellite meaning 'in'. Moreover, for this and certain other DIRECTIONAL notions, Yiddish gives the D satellite distinct phonological forms when it appears in an α′ sentence vs. in the corresponding γ′ sentence:

(79)

α': ix hob arayn-geštoxn a špilke in dem man
I stuck-in a pin into the man

γ': ix hob ayn-geštoxn dem man mit a špilke
I stuck-in the man with a pin

10.43 ...in Motion Translatory Structures taking *OF*

All the motion translatory structures we have dealt with so far have introduced the extraposition particle *WITH* in their non-α-orders. We now turn to structures which introduce *OF*. The general rule governing the choice is that 1) where the DIRECTIONAL prepositional in the underlying motion-structure [as shown in (1)] is *TO*, *POR*, *ALONG*, or *ALENGTH*, the extraposition particle is regularly *WITH*, and 2) where the DIRECTIONAL prepositional is *FROM*, the extraposition particle is regularly *OF*.*

---

* Translatory structures (i.e., structures built from a motion/location plus a spatial structure) which contain the DIRECTIONAL expression *FORTH FROM*, as illustrated earlier by sentences with the verbs *spout*, *squirt*, and *bleed*, constitute a special category: they differ from other *FROM*-containing structures in introducing *WITH* in extraposition and they differ from other *WITH*-introducing structures in having a $\gamma_t$ form rather than an $\alpha_t$ form.

---

For a first illustration, we consider an example where the *OF* keys in the vadic preposition *of*. In this example, the FIGURAL expression, which contains the repeated nominal *his veins*, goes through something like the following derivation when occupying the subject position in the α-order structure, (80a):

| | |
|---|---|
| the blood that was in his veins | |
| the blood in his veins | (by relative clause reduction) |
| the blood in them | (by pronominalization) |
| the blood | (by meta-deletion). |

and goes through something like the following derivation when occupying the prepositional-object position in the γ-order structure, (80c):

the blood that was in his veins
the blood in his veins (by relative clause reduction)
the blood in them (by pronominalization)
their blood (by 'possessivization'):

(80)

(a) the blood in his veins (F) MOVE (M) ⟨OUT (D) ⟨'MANNER'
Ø drain
from⟩ (D) his veins (G)

[the blood (slowly) drained from his veins]

(b) ⟹ --- MOVE (M) ⟨OUT (D) ⟨'MANNER' OF⟩the blood in his veins (F)
it drain of Ø
from⟩ (D) his veins (G)

[*it (slowly) drained of [the] blood from his veins]

(c) ⟹ his veins (G) MOVE (M) ⟨OUT (D) ⟨'MANNER'
drain
OF⟩ the blood in his veins (F)
of their blood

[his veins (slowly) drained of their blood]

The effective formations for this example are derived as in (81):

(81)

(a) I (A) EFFECT (ρ) TO (δ) it ($s_T$), that
the blood (F) drain (MDm) from> (D) his veins (G)

⟹ I (A) $_e$drain (ρδMDm) > the blood (F) from> (D) his veins (G)

[I drained the blood from his veins]

(b) I (A) EFFECT (ρ) TO> (δ) it ($s_T$), that
(it) drain (MDm) of> blood (F) from> (D) his veins (G)

⟹ I (A) $_e$drain (ρδMDm) > (it) of> blood (F)
from> (D) his veins (G)

[*I drained (it) of blood from his veins]

(c) I (A) EFFECT (ρ) TO> (δ) it ($s_T$), that
his veins (G) drain (MDm) of> their blood (F)

⟹ I (A) $_e$drain (ρδMDm) > his veins (G) of> their blood (F)

[I drained his veins of their blood]

Another example, involving the verb *clear*, is much like that with *drain*, as is shown in tabular form in (82):

(82)

α: the smoke cleared from the room

γ: the room cleared of the smoke (that was in it)

α′: I cleared the smoke from the room

γ′: I cleared the room of the smoke (that was in it)

A number of verbs are like the preceding ones except in having only effective forms; two such (which enter into metaphoric extensions from purely physical motion / location) are *sap* and *strip:*

(83)

α′: worry (gradually) sapped his strength from him

γ′: worry (gradually)sapped him of his strength

(84)

α′: I stripped his rank from him

γ′: I stripped him of his rank

There is another verb which is much like *sap* and *strip* except that it has different phonological shapes -- i.e., it has suppletive surface forms -- for the different structural-orders. To wit, it has *steal* for the α′ -- i.e., the non-extrapositional -- structure, and *rob* for the γ′ -- i.e., the extrapositional -- structure. A possible mechanism by which the right suppletive form can be inserted would be for the extraposition transformation to leave a marker in the verb-complex. This marker can be represented by the symbol '$\overline{\alpha}$' standing for 'non-α', i.e., for 'extrapositional'. (Once instituted, this marker-introduction would presumably take place automatically, even when irrelevant for constant-shape verbs). The verb-complex which keys in the *steal/rob* verb contains a MANNER satellite shown in (85) as *BY-THEFT;* it also contains a DIRECTIONAL satellite shown as *FROM-POSSESSION,* representing that portion of the DIRECTIONAL prepositional which has assatellated; onto the verb-complex which does not

additionally have the marker '$\overline{\alpha}$', then is inserted *steal*, and onto the one which does, is inserted *rob:*

(85)

α': I (A) MOVE (M) ⟨BY-THEFT (m) ⟨FROM-POSSESSION (D)
(MOVE (M) ⟨BY-THEFT (m) ⟨FROM-POSSESSION (D) = steal)

> all his money (F) FROM-the-POSSESSION-OF> (D) him (G)
(FROM-the-POSSESSION-OF> = from)

[I stole all his money from him]

γ': I (A) MOVE (M) ⟨BY-THEFT (m) ⟨FROM-POSSESSION (D) ⟨$\overline{\alpha}$
(MOVE (M) ⟨BY-THEFT (m) ⟨FROM-POSSESSION (D) ⟨$\overline{\alpha}$ = rob)

> him (G) OF> all his money (F)
(OF> = of)

[I robbed him of all his money]*

---

* -- Note that the approximately synonymous slang verb *rip off* has only this single form:

I ripped off all his money from him
I ripped him off of all his money

-- Another instance where the presence or absence of '$\overline{\alpha}$' must be recognized by the insertion transformation for the right lexical verb to be keyed in is with *emanate/emit:*

α: light MOVE ⟨FORTH FROM> the sun
(MOVE ⟨FORTH = emanate; FROM> = from)

[light emanated from the sun]

$\gamma_t$: the sun MOVE ⟨FORTH ⟨$\bar{\alpha}$ WITH⟩ light
(MOVE = emit; WITH = ∅)

[the sun emitted light]

---

As the verb *bleed* was earlier used to exemplify a structure which, in the non-α-orders, introduces *WITH* and conflates a bathic FIGURAL noun with the *MOVE* verb, so *dry* can be used to exemplify an *OF*-introducing structure with the same conflational properties, as sketched in (86); the new D satellite *FREE* which appears here will be treated later.

(86)

α: the LIQUID (F) MOVE (M) ⟨BY-EVAPORATION (m) ⟨FREE (D) FROM⟩ (D) the board (G)

[*the LIQUID {evaporated free / came free by evaporation} from the board]

β: --- MOVE (M) ⟨BY-EVAPORATION (m) ⟨FREE (D) OF⟩ LIQUID (F)

⟹ MOVE (M) ⟨BY-EVAPORATION (m) ⟨FREE (D) ⟨[OF⟩ LIQUID (F)]
(MOVE ⟨BY-EVAPORATION (m) ⟨FREE (D) ⟨[OF⟩ LIQUID (F)] = dry)

FROM⟩ (D) the board (G)

[*it dried from the board]

γ: the board (G)

MOVE (M) ⟨BY-EVAPORATION (m) ⟨FREE (D) ⟨[OF⟩ LIQUID (F)]
(MOVE ⟨BY-EVAPORATION (m) ⟨FREE (D) ⟨[OF⟩ LIQUID (F)] = dry)

[the board (slowly) dried (in the sun)]

When the FIGURE is multiply specified by two expressions, the derivation in (86) yields sentences like those in (87):

(87)

αα: *the LIQUID (slowly) evaporated free from the board
the dew

αβ: the dew (slowly) dried from the board

ββ: *it (slowly) dried of dew from the board

γ: *the board (slowly) dried of the dew (that was on it)

English structures which take *OF* in extraposition can appear with several different D satellites in γ- or γ'-order, perhaps more readily so those structures taking *WITH* (for which our best example was *I set it about/in with gems)*. This is illustrated with the verb *wash* (*wipe* works just as well) for the D satellites *off* in (88) and *out* in (89):

(88)

α: the dirt washed (right) off my face

γ: ˣmy face washed (right) off of the dirt (that was on it)

--ˣmy face washed (right) off*

α′: I washed the dirt off my face

γ′: ˣI washed my face off of the dirt (that was on it)

-- I washed my face off*

(89)

α: the dirt washed (right) out of the bowl

γ: ˣthe bowl washed (right) out of the dirt (that was in it)

-- the bowl washed (right) out*

α′: I washed the dirt out of the bowl

γ′: ˣI washed the bowl out of the dirt (that was in it)

-- I washed the bowl out*

---

* The α-order structure underlying these sentences may be assumed to have a bathic FIGURAL noun like *MATERIAL*. Thus, these sentences derive from the immediately underlying γ and γ′ structures by meta-deletion of the extrapositional phrase *OF> MATERIAL*.

---

A still larger range of D satellite variation can be demonstrated for structures containing the FIGURAL-noun-incorporating verb *dry*. Such structures, in addition to appearing with the D satellite *FREE* alone, can further appear with the choice of either *OFF* or *OUT*. Thus (to illustrate only for those structural orders which yield acceptable

sentences), beside an αβ form like that in (87), e.g.,

the dew
the moisture
dried from
the board
the blanket

(as if from ...*dried free from*...) can now be compared

the dew dried off of the board
the moisture dried out of the blanket,

and beside a γ form like that in (86), e.g.,

the board
the blanket
dried

(as if from ...*dried free*) can be compared

the board dried off
the blanket dried out.

These last γ forms were autic; the parallel effective case can be illustrated with the verb *dust*. Thus, beside

I dusted
the table
the bowl

(as if from **I dusted the table/bowl free*) can be compared

I dusted the table off
I dusted the bowl out.

Presenting some background now for the D satellite *FREE*, we introduce the spatial structure (not treated earlier)

(90) [a POINT] IS OF the ASSOCIATES-SPACE OF [a PLANE, a SPHERE],

where *ASSOCIATE-SPACE* is intended to specify a topological notion neutral to the distinctions of those specified by *SURFACE* and *INSIDE-(-SPACE)*. When this spatial structure is in construction with the *FROM*-containing motion/location structure, something like the following derivation takes place for the combined DIRECTIONAL expression [compare the derivations in (4)]:

(91)

(a) FROM a POINT which IS OF the ASSOCIATE-SPACE OF

(b) FROM a POINT OF the ASSOCIATE-SPACE OF

(c) FROM a POINT BY

(d) FROM BY

(e) FROM FREE

(f) FREE FROM

For English, by assatellation from the (f)-stage form, there derives ⟨*FREE FROM*⟩, a DIRECTIONAL expression which is again intended to be neutral to the specificational-distinctions of both ⟨*off-of*⟩ and ⟨*out-of*⟩, i.e., to specify in effect a general 'ablative' DIRECTIONAL. Under a range of syntactic circumstances, the bathic D satellite ⟨*FREE* can be variously involved in the surface appearance of the D satellites ⟨*free* and ⟨*un-* and of the MD verbs *remove* and *free*, as illustrated in (92):

(92)

(a) [autic:]

α: the plug MOVE ⟨FREE FROM⟩ the bottle
free from

[the plug came free from the bottle]

γ: the bottle MOVE ⟨FREE ⟨$\overline{\alpha}$ OF⟩ its plug
free of

[*the bottle came free of its plug]

(b) [effective:]

α′: I $_{e}$MOVE ⟨FREE ⟩ the plug FROM⟩ the bottle
remove,free from

[I removed the plug from the bottle]

[I freed the plug from the bottle]

γ: I $_{e}$MOVE ⟨FREE ⟨$\overline{\alpha}$ ⟩ the bottle OF⟩ its plug
free of

[I freed the bottle of its plug]

(92)

(c) [autic, with the FIGURE multiply-specified:]

αα: the CORK MOVE ⟨FREE FROM⟩ the bottle
the plug

αβ: the plug MOVE ⟨FREE OF⟩ the CORK FROM⟩ the bottle
un-

⟹ the plug un- MOVE ⟨[OF⟩ the CORK] FROM⟩ the bottle
cork from

[ˣthe plug uncorked from the bottle]

γ: the bottle MOVE ⟨FREE ⟨$\overline{\alpha}$ OF⟩ its CORK
un- (OF⟩ its plug)

⟹ the bottle un- MOVE ⟨[OF⟩ its CORK] (OF⟩ its plug)
cork of

[ˣthe bottle uncorked (*of its plug)]

(92)

(d) [effective, with the FIGURE multiply-specified:]

αα′: I $_{e}$MOVE ⟨FREE > the CORK FROM> the bottle
the plug

αβ′: I $_{e}$MOVE ⟨FREE > the plug OF> the CORK FROM> the bottle
un-

⟹ I un- $_{e}$MOVE ⟨[OF> the CORK] > the plug FROM> the bottle
cork from

[I uncorked the plug from the bottle]

γ′: I $_{e}$MOVE ⟨FREE ⟨$\bar{\alpha}$ > the bottle OF> its CORK
un- (OF> its plug)

⟹ I un- $_{e}$MOVE ⟨[OF> its CORK] > the bottle OF> its plug
cork of

[I uncorked the bottle (*of its plug)]*

---

*Actually, the neat paradigm for *FREE* set forth in these derivations, though suggestive, is not wholly accurate as it stands. The general ablative specification we intend for ⟨*FREE* -- that is to say, its *out-of/off-of* neutrality -- is indeed represented in the verb *remove:*

I removed the ball from the box
I took the ball out of the box
I removed the dish from the table
I took the dish off of the table

and in the prefixal satellite *un-:*

I uncorked the bottle
    I took the cork out of the bottle
I unyoked the oxen
    I took the yoke off of the oxen

And it is also represented in the verb *free* and in the postposed satellite *free:*

I freed the stump from the soil
I pulled the stump free from the soil
    I pulled the stump out of the soil

I freed the mussel from the rock
I pulled the mussel free from the rock
    I pulled the mussel off of the rock.

However, the latter two forms incrementally incorporate the notion of 'counter-resistantly out of attachment' [in this regard, ‹*free* is like ‹*loose*, as in

she pulled her skirt loose from the door (that had shut on it)]

---

The verb *pit* as in *I pitted the cherry*, has syntactic underpinnings parallel to those of the verb complex *uncork*, as in *I uncorked the bottle* -- i.e., it contains elements specifying both a FIGURE and the ablative DIRECTIONAL. However, it incorporates the element specifying the latter notion rather than having it as a satellite, as sketched in (93):

(93)

(a) [with a vadic FIGURAL nominal:]

α′: I $\underbrace{{}_{e}\text{MOVE} \langle \text{FREE}}_{\text{remove}}$ > the pit $\underbrace{\text{FROM}\rangle}_{\text{from}}$ the cherry

[I removed the pit from the cherry]

$$\left[\gamma'\text{: I } \underbrace{{}_{e}\text{MOVE} \langle \text{FREE} \langle \overline{\alpha}}_{\text{free}} \text{ > the cherry } \underbrace{\text{OF}\rangle}_{\text{of}} \text{ its pit}\right]$$

[I freed the cherry of its pit]

(b) [with a bathic FIGURAL noun:]

γ′: I ${}_{e}$MOVE ⟨FREE > the cherry OF⟩ its PIT

⟹ I $\underbrace{{}_{e}\text{MOVE} \langle \text{FREE} \langle [\text{OF}\rangle \text{ its PIT}]}_{\text{pit}}$ > the cherry

[I pitted the cherry]

If the verb *pit* did not incorporate the ablative satellite ⟨*FREE*, English speakers perhaps might have to say

*I pitted the cherry free

or *I unpitted the cherry.

Similarly, if there were not the verbs *dust* and *dry*, as encountered earlier, one might have to say

*I undusted the table

and *I unmoistured the board.

Other verbs which behave like these three in incorporating specifications both for FIGURE and for 'ablative' are shown in (94):

(94)

| | |
|---|---|
| I pitted the cherry | I husked the corn |
| I boned the chicken | I shelled the peas |
| I cored the apple | I peeled the orange |
| I skinned the bear | I dusted the table |
| I seeded the grapes | I scalped the white man |
| | I weeded the garden |
| I gutted the deer | I pantsed the initiate* |

---

* It may be noted that the spatial structure in (90), when in construction with the *TO*-containing motion/location structure, i.e.,

TO a POINT which IS OF the ASSOCIATE-SPACE OF,

may be considered to specify a general allative DIRECTIONAL. This then derives into a D expression representable as ‹*BY TO*› (the correspondent of ‹*FREE FROM*›) which is neutral to the specificational-distinctions of ‹*into*›, ‹*onto*›, and ‹*all-over*›. The ‹*BY* satellite then either becomes incorporated in the verb:

I corked the bottle
    I put a cork into the bottle
I tagged the suitcase
    I put a tag on (into attachment to) the suitcase
I varnished the cabinet
    I put varnish all over the cabinet,

or it keys in the vadic satellite ‹*be-*, an alternative so marginal in English (though frequent enough in other languages, e.g., German) that beside the perhaps single workable example:

I bemired the wares

I put mire all over the wares,

one can only adduce suggestive, but hypothetical forms:

*I becorked the bottle

*I betagged the suitcase

*I bevarnished the cabinet

---

10.44 ... in Location Translatory Structures with D Satellites

Assatellation from the DIRECTIONAL expression, yielding a D satellite (independent and/or incorporated in the verb), was seen for all the motion translatory structures discussed in 10.42 and 10.43 but for none of the location ones in 10.41. We now return to the latter structures to illustrate the process, beginning with an example where the D satellite remains independent (i.e., does not conflate):

(95)

(a) [an α-order locative $S_T$:]

the roof beams hung ABOVE> the terrace
over

[the roof beams hung (out) over the terrace]

(b) [---after assatellation:]

⟹ the roof beams hung <ABOVE ABOVE> the terrace
over- over

[*the roof beams overhung over the terrace]

(c) [---after transitivization (hence, an $\alpha_t$ form):]

⟹ the roof beams hung <ABOVE ABOVE> the terrace
over- ∅

[the roof beams overhung the terrace]

This same derivation is exemplified again in (96) and (97), but here the D satellite conflates with the MOTIVE verb. In most previous locative $S_T$'s, the FIGURE has been one whose topological idealization could be specified by *a POINT*, and the MOTIVE could correspondingly be specified by $BE_L$. In (96), the FIGURE is now better specified by *an EXTENT*, and the locative MOTIVE by *EXTEND*. In (97), the FIGURE is better specified by *POINTS;* the locative MOTIVE should be specified by a distinct bathic verb, but since there is no suitably suggestive English vadic verb by which to represent this, $BE_L$ will be used here too:

(96)

(a) the bridge EXTEND ACROSS> the river
across

[the bridge extended across the river]

(b) ⟹ the bridge EXTEND <ACROSS ACROSS> the river
span across

[*the bridge spanned across the river]

(c) ⟹ the bridge EXTEND <ACROSS ACROSS> the river
span ∅

[the bridge spanned the river]

(97)

(a) trees $BE_L$ AROUND> the cabin

(all) around

[xtrees were all around the cabin; compare:

othere were trees all around the cabin]

(b) ⟹ trees $BE_L$ <AROUND AROUND> the cabin

surround (all) around

[*trees surrounded all around the cabin]

(c) ⟹ trees $BE_L$ <AROUND AROUND> the cabin

surround Ø

[trees surrounded the cabin]

This last example also has a $\gamma$ form:

(98) the cabin was surrounded with trees,*

but it is not clear how best to derive this.

---

* This is not the passive of (97c), which would have *by* instead of *with:*

the cabin was surrounded by trees.

---

One possibility is to assume that the DIRECTIONAL expression in the $\alpha$ structure is to retain something of its original nature as a prepositional complex up until the assatellation transformation,

which would then assatellate a copy of the first portion of the complex, that is, a preposition+noun phrase. This possibility is more easily demonstrated for a verb akin to *surround*:

trees $\underbrace{BE_L \langle[IN\rangle\ CIRCLE]}_{\text{circle}}$ $\underbrace{IN\text{-}CIRCLE\text{-}OF\rangle}_{\emptyset}$ the cabin.

[trees circled the cabin]

In the γ-order structure, the assatellated phrase can then be assumed capable of some of the same derivational options as an extrapositional phrase. For example, the preposition in the phrase might key in the particle *a-*, as in the non-existent but suggestive form

the cabin $BE_L$ $\langle[\underbrace{IN\rangle}_{\text{a-}}\ \underbrace{CIRCLE]}_{\text{circle}}\ \underbrace{WITH\rangle}_{\text{with}}$ trees

[*the cabin was acircle with trees].

Or, it might key in the particle *-EN*, as in the marginal form:

the cabin $BE_L$ $\langle[\underbrace{IN}_{\text{-EN}}\ \underbrace{CIRCLE]}_{\text{circle}}\ \underbrace{WITH\rangle}_{\text{with}}$ trees

[ˣthe cabin was circled with trees].

It is by a form like this, then, that the 'be surrounded with' sentence in (98) might be account for.

Similar to *surround* is *cover* which arises from a DIRECTIONAL expression whose derivation is now shown in some detail:

(99)

| | | | | |
|---|---|---|---|---|
| (a) | [POINTS] | $BE_L$ | AT ALL POINTS OF the SURFACE OF | > [a PLANE] |
| (b) | | ⟹ | AT ALL POINTS ON | |
| (c) | | ⟹ | AT ALL ON | |
| (d) | | ⟹ | AT ALL OVER | |
| (e) | | ⟹ | ALL OVER | |

It can be noticed that this derivation is similar to that for *on* in (4B), the most noteworthy difference being the step from (c) to (d), where *ON* changes to *OVER*. An example of a locative translatory structure containing this DIRECTIONAL expression is shown in (100):

(100)

(a) sand $BE_L$ ALL-OVER> the floor
(all) over

[xsand was all over the floor; compare:
°there was sand all over the floor]

(b) sand $BE_L$ <ALL-OVER ALL-OVER> the floor
cover (all) over

[*sand covered all over the floor]

(c) sand $BE_L$ <ALL-OVER ALL-OVER> the floor
cover Ø

[sand covered the floor]

(d) the floor $BE_L$ <ALL-OVER WITH> sand

-EN COVER with

[the floor was covered with sand]

(compare the impossible, but instructive:

*the floor was acover with sand)

Working very much like *cover* is *fill*. The DIRECTIONAL expression from which this arises is derived as shown in (101):

(101)

(a) [POINTS] $BE_L$ | AT ALL POINTS OF the INSIDE OF | > [a SPHERE]

(b) ⟹ | AT ALL POINT IN |

(c) ⟹ | AT ALL IN |

(d) ⟹ | AT ALL FULL |

(e) ⟹ | ALL FULL |

It should be noted that although English has the preposition *over* for the DIRECTIONAL notion of 'covering':

there was sand all over the floor,

it lacks a corresponding preposition for the DIRECTIONAL notion of 'filling':

*there was water { all in / all full } the tub.

Except for this lacuna, the paradigm of structures involving the *ALL-FULL* prepositional is the same as that involving the *ALL-OVER* prepositional; indeed, there is one additional derivational option for the γ structure:

(102)

(a) water $BE_L$ $\underbrace{\text{ALL-FULL}\rangle}_{\text{xxx}}$ the tub

[*water was all in/all full the tub;
*there was water all in/all full the tub]

(b) water $\underbrace{BE_L \langle \text{ALL-FULL}}_{\text{fill}}$ $\underbrace{\text{ALL-FULL}\rangle}_{\text{xxx}}$ the tub

[*water filled all in/all full the tub]

(c) water $\underbrace{BE_L \langle \text{ALL-FULL}}_{\text{fill}}$ $\underbrace{\text{ALL-FULL}\rangle}_{\emptyset}$ the tub

[water filled the tub]

($d_1$) the tub $BE_L \langle \underbrace{\text{ALL-FULL}}_{\text{-EN FILL}}$ $\underbrace{\text{WITH}\rangle}_{\text{with}}$ water

[the tub was filled with water]

($d_2$) the tub $BE_L \langle \underbrace{\underbrace{\text{ALL-FULL}}_{\text{full}}\ \underbrace{\text{WITH}\rangle}_{\text{with}}}_{\text{full-of}}$ water

[the tub was full of water; compare the Yiddish:

di vane iz geven ful mit vaser ]
the tub was full with water

The two locative DIRECTIONALs we have just dealt with also have allative motion correspondents:

TO ALL POINTS OF the SURFACE OF> ⇒ ⇒ ALL-OVER$_T$>

TO ALL POINTS OF the INSIDE OF> ⇒ ⇒ ALL-FULL$_T$>

We illustrate the second of these in a set of structures where a copy of the DIRECTIONAL expression assatellates to the *MOVE* verb and then conflates with it:

(103)

α: water $\underbrace{\text{MOVE } \langle\text{ALL-FULL}_T}_{\text{fill}}$ $\underbrace{\text{ALL-FULL}_T\rangle}_{\text{xxx}}$ the tub

[*WATER (slowly) filled into the tub]

$\alpha_t$: water $\underbrace{\text{MOVE } \langle\text{ALL-FULL}_T}_{\text{fill}}$ $\underbrace{\text{ALL-FULL}_T\rangle}_{\emptyset}$ the tub

[water (slowly) filled the tub]

γ: the tub $\underbrace{\text{MOVE } \langle\text{ALL-FULL}_T}_{\text{fill}}$ $\underbrace{\text{WITH}\rangle}_{\text{with}}$ water

[the tub (slowly) filled with water]

α': I $\underbrace{e\text{MOVE } \langle\text{ALL-FULL}_T}_{\text{fill}}$ > water $\underbrace{\text{ALL-FULL}_T\rangle}_{\text{xxx}}$ the tub

[*I filled water all into the tub]

$\gamma'$: I $\underbrace{{}_{e}\text{MOVE} \lessdot \underbrace{\text{ALL-FULL}_{T}}_{\text{fill}}}$ > the tub $\underbrace{\text{WITH}>}_{\text{with}}$ water

[I filled the tub with water]

The same DIRECTIONAL expression can be illustrated in another set of structures (only effective ones, here) where a copy again assatellates to the *MOVE* verb but, this time, keys in the vadic satellite *full* instead of conflating; *MOVE* here conflates with a MANNER expression:

(104)

$\alpha'$: I ${}_{e}$pour $\underbrace{\lessdot \text{ALL-full}_{T}}_{\text{full}}$ > water $\underbrace{\text{ALL-FULL}_{T}>}_{\text{xxx}}$ the glass

[*I poured water full into the glass]

$\gamma'$: I ${}_{e}$pour $\lessdot \text{ALL-FULL}_{T}$ > the glass WITH> water

$\Longrightarrow$ I ${}_{e}$pour > the glass $\underbrace{\underbrace{\lessdot \text{ALL-FULL}_{T}}_{\text{full}} \underbrace{\text{WITH}>}_{\text{with}}}_{\text{full-of}}$ water

[I poured the glass full of water]

or, where the FIGURE is generic, permitting meta-deletion of the FIGURAL noun:

$\gamma'$: I ${}_{e}$pour $\underbrace{\lessdot \text{ALL-FULL}_{T}}_{\text{full}}$ > the glass $\underbrace{\text{WITH}> \text{MATERIAL}}_{\emptyset}$

[I poured the glass full]

10.45 ... in Location-like 'Emotive Structures'

Derivational processes similar to those just seen for locative translatory structures can also be observed for structures which specify a cognitive or emotive situation. Although the way in which such structures may or may not be semantically related to translatory structures -- particularly in regard to homologies for FIGURE, GROUND, etc. -- is at this stage by no means clear, they can be used to illustrate our syntactic point. Thus, e.g., in an emotive structure which appears to be homologous with a locative α-order translatory structure containing a prepositional complex:

(105) physics BE WITH-INTEREST-TO> me,

the first two constituents of the complex -- which together constitute a prepositional+nominal phrase -- can participate in a range of derivations similar to that for the extrapositional phrase:

(106)

α-order:

(a) physics BE WITH> INTEREST to> me
of interest

[physics is of (some) interest to me]

(b) physics BE WITH> INTEREST to> me
-ADJ
INTEREST -ADJ
interesting

[physics is interesting to me]

(c) physics BE <[WITH> INTEREST] to> me
interest

[*physics interests to me]

$\alpha_t$-order:

(d) physics BE <[WITH> INTEREST] to> me
interest Ø

[physics interest me]

Although the (c) derivational form in (106) is impossible for *INTEREST*, it can be seen for another emotive noun:

(107)

α-order

(a) her future BE WITH> IMPORT to> me
of importance

[her future is of importance to me]

(b) her future BE WITH> IMPORT to> me
-ADJ
IMPORT -ADJ
important

[her future is important to me]

(c) her future BE <[WITH> IMPORT] to> me
matter

[her future matters to me]

The emotive structure with *INTEREST* is also capable of deriving into what appears the homolog of a location γ-order structure, wherein the special prepositional+nominal phrase (*WITH> INTEREST*) again participates in derivations similar to those for the extrapositional phrase. This γ structure also contains a real extrapositional phrase (*WITH> physics*, in the present example), again with the particle *WITH:*

(106) [continued]

γ-order:

(e) I BE WITH> INTEREST WITH> physics
-EN in
INTEREST -EN
interested

[I am interested in physics]

(f) I BE WITH> INTEREST WITH> physics
have in

[I have (some) interest in physics]

Here in (e) and (f), the extraposition particle has keyed in the preposition *in*, but there are several other possibilities:

(108)

in: physics is interesting to me
I am interested in physics

with: this piece is familiar to me
I am familiar with this piece

with: the play was boring to me

I was bored with the play

at: her decision was surprising to me

I was surprised at her decision

about/ over his ill health concerned me

I was concerned about/over his ill health

of: such trifles are tiring to me

I am tired of such trifles

[these last two sentences are not quite a semantic match and should perhaps be considered to involve two different emotive nouns, $TIRE_1$ and $TIRE_2$]