

EXPLORING COMPOUNDING IN DISTRIBUTED MORPHOLOGY

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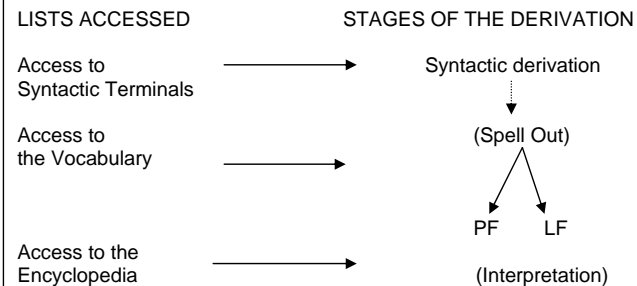
- 1 GOALS:** (a) To explain compounding in Distributed Morphology (DM).
 (b) To spell out some implications and problems
 (c) To give an alternative account

2 THE FRAMEWORK: DM

2.1 Core assumptions

- **Syntax: the only generative component** → responsible for words and phrases.
- **No Lexicon.**
- The syntax manipulates terminals which can contain **two types of morphemes**:
 - (a) **abstract morphemes**: bundles of universal grammatical features, FCs.
 - (b) **roots**: language-specific phonological features, category neutral, LCs.
- Roots: categorized by a functional node, i.e. n^0 , a^0 , v^0 .
- A tree structure (Merge and Move): sent to LF and PF (Chomsky 1995).
- On the way to PF, terminal nodes can undergo readjustment operations (e.g. fusion).
- VIs provide terminal nodes with phonological content. **Competitive insertion.**
- **Readjustment operations** → mismatches bet. syntactic and morphological structure.
- Unmarked case (Spell-Out): 1-to-1 relation between morphemes and VIs.
 (cf. Marantz 1997, 2001, Harley & Noyer 1999, Embick & Noyer 2007, a.o.).

The Grammar, with Lists (Embick & Noyer 2007: 301)



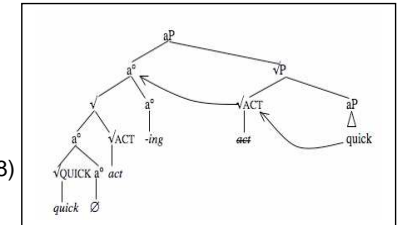
3 COMPOUNDS IN DM (Harley 2008)

3.1 Assumptions

- **Compounds = incorporation structures** (cf. Baker 1988) → **syntactic** head-to-head movement
 - **Head movement: phonological conflation** (Hale & Keyser 2002, adopted by Harley 2004).
 - Not really clear about the nature of head movement in Harley 2008 (syntactic or phonological).
 - Internal arguments and modifiers of roots are merged with roots first, before categorization of the root.
 - Synthetic modifier compounds (e.g. *quick-acting*)
 - Synthetic argument compounds (e.g. *truck driver*)
- } = analysis

3.2 Synthetic modifier compounds

- (1) a. quick-acting baking powder (It acts quick(ly))
 b.



(from Harley 2008)

Controversial issues:

1. **If compounding = incorporation/conflation (1b), then why cannot *quickly* occur inside the compound?**
 Possible answer in DM: some convenient readjustment rules on the way to PF (?!)
2. **-ing only attaches to verbs** (already categorized roots; cf. Marantz 1997).
 Preliminary solution: to add a v^0 above the \sqrt{P} once *quick* has incorporated into \sqrt{act} .
 Problem for DM: this analysis predicts compounds like **to quick-act*, **to meat-eat*, **to corn-fertilize* and **to truck-drive* → ungrammatical.
 Harley's proposal (parametric variation): in English (but not Mohawk, for example) the head v^0 cannot contain more than one root in its base position.
 BUT, what about verbs like *to computer-generate*, *to Chomsky-adjoin*, *to steam-clean*, *to deep-fry*...? (some back-formations, but the child does not know)
3. **Why does *quick* have to incorporate if a non-incorporation syntactic structure is available?**
 Harley: [+/- affix] feature of the root. BUT not much sense if the root can be an independent word of the language (see below).

Possible alternative:

Two competitive generative systems: syntax vs. morphology (Ackema & Neeleman 2004) (underspecification w.r.t. locus of merger; no acategorial roots, cf. Don 1993)
 All else being equal syntax takes precedence in languages like English, although morphology can block syntactic merger in certain circumstances

- Competition:** (2) a. merger of same categories: α and β
 b. same semantic relation between α and β in the two structures

No competition. Morphological merger is possible iff there is no syntactic competitor
 (3) a. merger of different categories, or
 b. different semantics involved in the syntactic and morphological structure

(4) a. $\sqrt{\text{to act quickly}}$ } Same categories: adverb and verb
 b. to quickly-act } Same semantics

(5) a. $\sqrt{\text{to eat meat}}$ } (=4): Same categories and semantics
 b. to meat-eat }

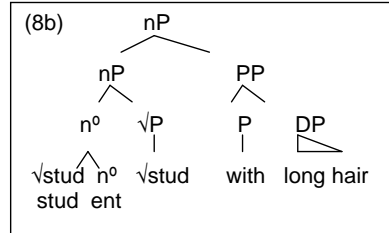
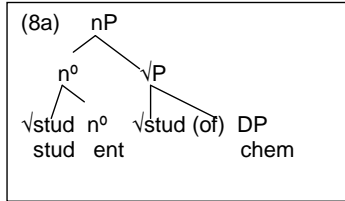
BUT (6) a. to computer-generate
 b. to Chomsky-adjoin

Q. Why grammatical?

A. Different merger of categories in syntax (a P is needed) and in morphology (no P)
 B. Different semantics

3.3 Synthetic argument compounds

(7) a. ?*The student of chemistry and this one of physics sit together
 b. That student with short hair and this one with long hair sit together



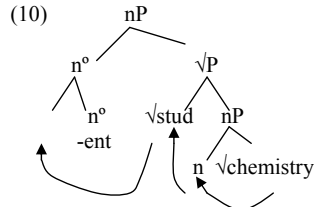
Problems:

→ Harley (2008): "(internal) argument selection is a property of roots".
 GOOD: Harley → roots contain encyclopaedic info which can tell if an internal argument is needed.
 BAD: Accessing encyclopaedic information = a phase is sent off to PF and LF. For phases: a root must be categorized (Marantz 2001).
 Hence, incompatible with Harley's view.

→ Idiomatic readings: the root must already be a V when it merges with its internal argument. If not, idiomatic reading: lost under inheritance (cf. Ackema & Neeleman 2004: 54-59)

(9) a. John always makes trouble.
 b. #John is a maker of trouble.
 c. John is a real troublemaker.

Derivation in (8a): applied to synthetic compounds: the chemistry student (same contrast in *writer of scripts* vs. *scriptwriter*, etc)



Other synthetic argument compounds: *truck-driver*, *drug-pusher*, *car-chasing (dog)*, *grass-clipping (machine)*... V: nominalized or adjectivalized

Questions:

1. What is the difference bet. non-incorporation str. (8a) and incorporation str. (10)?

Harley (2004): the root $\sqrt{\text{stud}}$ is provided with a [+/- affix] in the numeration:

If [-] value → non-incorporation

If [+] value → incorporation (defective root, copying phonological material from sister)

(cf. Hale & Keyser's 2002 conflation mechanism)

BUT, if very same root present in both structures, then [+/- affix] seems an ad hoc solution.

Qs. How do we know which feature [+/- affix] gets inserted in the numeration? How can we distinguish when one word like *write* has one feature or another? Look Ahead problem (?)

Harley (2008): the [+/- affix] feature is only present when adverbs incorporate (e.g. *quick-acting*). With internal argument nouns: incorporation for case reasons.

2. If internal arguments incorporate for case reasons, why don't DPs incorporate?

Harley: nP is checked DP-internally (case feature is no longer available for incorporation)

BUT **2.1 How can case be checked DP-internally?!**

2.2 Which is the derivation of *truck-driver* in which *truck* is interpreted as an adjunct? → primary root compounds (*nurse shoes*): derived like synthetic argument compounds.

So, Harley's argument to merge the root with the internal argument first is undermined. All compounds are derived in the same way.

3. What is the derivation of...?

(11) a. gun supplier to the army? drug-pusher to children?

Harley's assumption: Small Clause analysis (cf. Hoekstra & Mulder 1990)

Impossible incorporation/conflation structures!!

4 SOME CONTROVERSIAL ISSUES ... in the DM framework

- Alleged existence of roots like $\sqrt{\text{vis}}$ in *visible*_{a°} and *vision*_{n°}
 $\sqrt{\text{vis}}$ as a root: questionable → 'visible' and 'vision': not decomposable for most speakers
- Suspicious flavours of category-creating terminal nodes: ad hoc, with idiosyncratic semantics (e.g. flavours of the a° head: 'characterized by' (*careful, comfortable*), 'able to be' (*edible*)...
- Putative competition for insertion between VIs like *-ness* and *-ity* in the n° head with the flavour 'the property of': *happiness, elasticity*.
NO COMPETITION: need for different types of bases (native vs. Latinate).

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