Morphology
Blocking/EALING Day One
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(1)   Traditional views:

A.   "Item and Arrangement," "Structuralist," "Generative" Morphology

Morphology is about "morphemes," the smallest (in phonological terms) meaningful units of language.

i.   Morphotactics (cf. phonotactics): Explores the distribution of morphemes, their order and arrangement.

ii.   Allomorphy (cf. allophony): Explores the contextually dependent pronunciation of morphemes.

B.   "Item and Process," "Word and Paradigm," "Lexeme-Based" Morphology

Morphology is about "lexemes," their forms as conditioned by inflectional features, and the relation between lexemes as instantiated in, e.g., derivational morphology.

(2)   Items

A.   For the generative morphologist, the items under discussion are the smallest bundles of features that combine in hierarchical structures, as opposed to unordered lists. In particular, roots are separate items from heads that might determine the lexical category (noun, verb, adjective) of a word. Words, then, have syntactic structure and the theory of morphotactics either resembles or is identical to syntactic theory, where structure is regulated by (semantic and syntactic) scope, subcategorization and selection.

Putting aside root morphemes for a moment, theories of type A differ on whether they treat the non-root morphemes that combine syntactically as consisting of both syntactic/semantic and phonological features – the "lexical" theories – or only of the syntactic/semantic features, with the phonological features provided after the syntax – the "realizational" (late-insertion) theories.

B.   For the Lexeme-based morphologist, the items under discussion are the smallest units consisting of a root plus whatever extra material is required to make up a stem of a lexical category (noun, verb, adjective). One set of principles (rules, constraints, etc.) states generalizations about the various forms a lexeme takes as a word with its various sets of inflectional features; these forms constitute a paradigm for the lexeme. Another set of principles (rules, constraints) establish generalization about relations between lexemes sharing, e.g., the same root. The theory of inflectional morphology, then, becomes the theory of paradigm structure, while the theory of derivational morphology is the theory of lexeme formation.

Lexeme and paradigm based theories also differ on whether they consider affixes to be units in some sense or merely the by-product of a phonological process or constraint expressing a feature (e.g., to make the past-tense, add /d/).

(3)   In this mini-course, we will discuss a particular version of a generative, realizational theory of morphology, Distributed Morphology. However, at every relevant point, we will contrast this theory with competitors of the generative and lexeme-based variety.

(4)   Morphotactics

We can divide approaches to morphotactics into:

a.   Syntactic. The order and distribution of morphemes is determined the same way that the order and distribution of syntactic elements is. Items that occupy the same positions and are thus in complementary distribution in some sense are items that share syntactic function (are of the same "category"). Order is determined largely via hierarchical structure, where hierarchical structure is organized syntactically and constrained by principles of semantic interpretation (scope, argument-taking).

b.   Templatic. The order and distribution of morphemes is determined by structure independent of syntactic features and semantic interpretation such that items occupying the same "slot" – and thus in complementary distribution – need not belong to the same syntactic category or perform the same semantic function.

Most lexicalist theories, including Lieber's, as well as A-Morphous morphology are templatic in this sense. Lexical Phonology and Morphology and Distributed Morphology provide syntactic approaches to morphotactics.
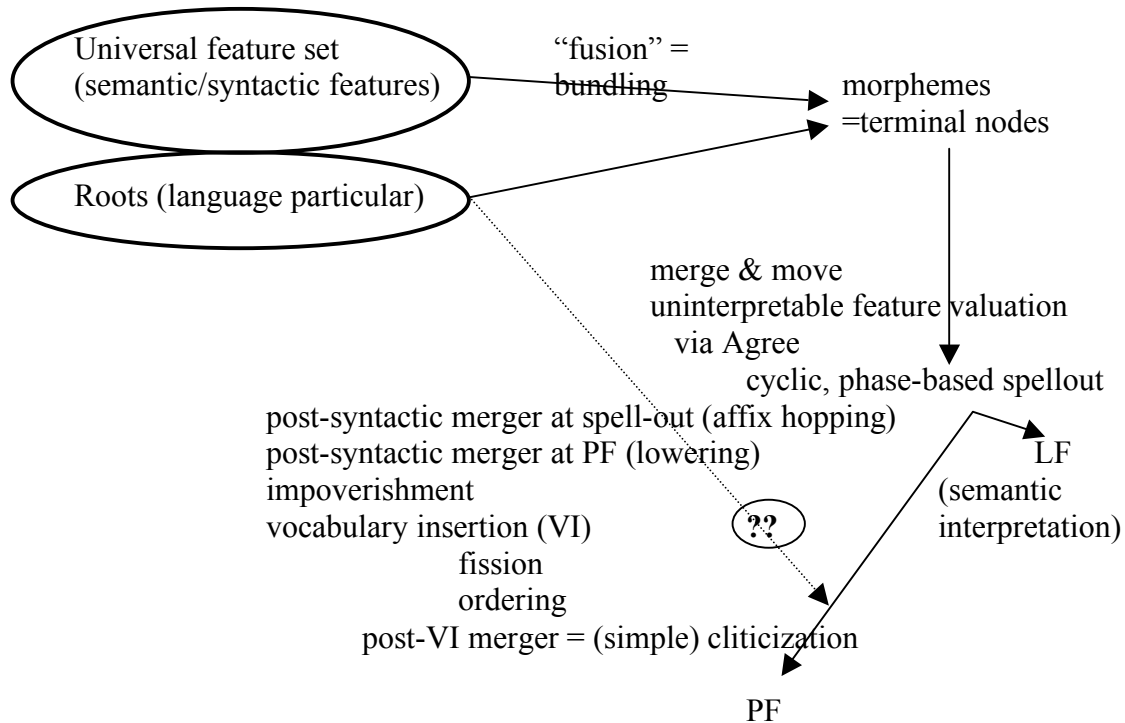
(5)   Allomorphy

The discussion of allomorphy divides between roots and other morphemes.

a.   For roots, suppletion (go/went) is extremely rare, but "morphophonological" connections between allormophs is common (leave/lef-t). Syncretism is almost none-existence (imagine singular, *cat*, *dog*, *giraffe*, *elephant*, etc., but plural *elephants* across the board, and *cats, *dogs, *giraffes, etc.). Issues here include the "listedness" of stem allomorphs, the existence of a single base form for a root, the role of lexical relatedness and of phonological well-formedness in the choice of allomorph, etc.

b.   For affixes, suppletion (-s for dog, -en for ox, ø for sheep) is common and syncretism widespread. Thus there is often a many to one mapping of a particular feature (say, plural) onto phonological forms (-s, -en, Ø) and a many to one mapping of phonological form (say –s) onto features (3rd person present, possessive, plural). The theory of allomorphy, then, becomes a theory of suppletion – competition among

phonological forms expressing the same features – and of syncretism – the spread of a phonological form across functions.

(6) Distributed Morphology and the Minimalist Framework of Chomsky

Universal feature set (semantic/syntactic features)

"fusion" = ~~bundling~~ → morphemes =terminal nodes

Roots (language particular)

merge & move
uninterpretable feature valuation
via Agree
cyclic, phase-based spellout

post-syntactic merger at spell-out (affix hopping)
post-syntactic merger at PF (lowering)
impoverishment
vocabulary insertion (VI)   ??
fission
ordering
post-VI merger = (simple) cliticization

LF
(semantic interpretation)

PF

a. Universal Grammar provides a set of syntactic/semantic features.

b. A language chooses a subset of these features to use in grammar (and a child learning the language may lose access to the unchosen features – see the work on early acquisition of language particular phonetics).

c. The language further chooses a subset of this subset for the computational system of syntax and decides how to package the chosen features into the terminal nodes of the syntax (for Chomsky, "lexical items," for Distributed Morphology, "morphemes"). The combination or bundling of features into morphemes for the computational system we'll call "**fusion**".

d. These morphemes contain only the features relevant to the computational system of syntax and so lack phonological and purely morphological features, which are inserted in the (morpho)phonology (="late insertion").

e. Spell-out hands the syntactically generated structures to the morphophonology and to LF for interpretation, and this occurs cyclically, at the end of each "phase" (for Chomsky, little v and C, at least, delimit phases).

f. Features added to the syntactic structure in the morphophonology may only be features that could not be part of the "lexical items" (=fused bundles of features that operate in the syntax). One implication of this is that *do* insertion in English, which involves adding a "little v," must be syntactic and not morphological.

(7)   **Roots:**

a. are like Saussurian signs in that they are identified by their phonological form and by their meaning(s), which are inexorably linked. Unlike Saussurian signs, roots may have multiple, contextually determined meanings; cf. the root '-ceive' in 'conceive,' 'deceive,' 'receive,' 'perceive,' etc.

b. may belong to semantic classes, but class features are classificatory, not constitutive.

c. have special meanings in particular (local syntactic) environments, meanings listed in the **Encyclopedia**.

(8) Since whatever features a root has are not constitutive (exhaustive**), roots are not paradigmatic** and cannot show suppletive allomorphs (allomorphs of roots must be generated via (morpho)phonological rules)

(9) On this view, "light verbs" like "go," "come," "give," "take," "have," are (realize) functional morphemes and contain no roots (cf. "go" ~ "went")

(10)   Operations in the Morphophonology

a. (Perhaps)**Feature Insertion** of purely morphological features: Morphological case, agreement (for Chomsky, feature values, not features)

b. Impoverishment, could be part of the process of spell-out itself, deciding which uninterpretable features are subject to Vocabulary Insertion, rather than a post spell-out morphophonological process of feature deletion prior to Vocabulary Insertion.

c. If Impoverishment is at spell-out, rather than during Vocabulary Insertion, we might expect locality conditions on Impoverishment to parallel conditions on Agree, rather than the locality conditions on contextual allomorphy.
See Trommer's recent work for a view with roughly these properties.

d. **Vocabulary Insertion** "insert the most highly specified Vocabulary item that fits"
Includes "**fission**" = repeated Vocabulary Insertion into a single morpheme.
Operates from roots out, cyclically.
Is contextually sensitive (outward (upward) to locally c-commanding features without information about vocabulary items, inward (downward) to all features of c-commanded inserted vocabulary items, with context limited to a locality domain.

Competition in Vocabulary Insertion: -s and –en each have the syntactic feature [+plural] and compete for insertion into a (any) number node from the syntax. Each will carry distinct phonological features and –en carries the contextual feature that limits its insertion to contexts where number is merged with a small set of roots (childr-, ox-).

e. **Morphological merger after Vocabulary Insertion:** rebracketing under adjacency, e.g., for cliticization of "simple clitics" such as the English possessive *'s*, after Vocabulary Insertion (see Embick & Noyer for extended discussion)

[the queen of England] 's hat → [the queen of [England's]] hat

(11)   Affixation: "Morphological Merger" at different points in the grammatical architecture. See Embick & Noyer (2001)

a.   Syntactic ("external") merge
                e.g., for root and little v
                (to be discussed in the 4th class Tuesday)

b.   Syntactic, at spell-out
                Known as: lowering/affix hopping
                Example: English Tense lowering
                Properties: insensitive to vocabulary items including phonological properties of affixes and roots, sensitive only to structure and syntactic features
                Consequences: "failure" of lowering can lead to *v* insertion (*do* support)
                        left vs. *did not leave*

c.   After spell-out transfer to morphophonology, between an item at phase being spelled out and host in a lower phase
                Known as: lowering
                Example: English comparative formation
                Properties: sensitive to vocabulary items in host, including phonological properties of roots
                Consequences: "failure" of lowering can lead to, e.g., *mo* insertion
                        smarter, vs. *more intelligent*

Issue: suppletion in comparatives: *good, bett-er*
        since comparative targets a lexical category, "adjective," comparative affix should attach to a phase, but suppletion would seem to imply that comparative is available when suppletive allomorph of root is chosen
        (light) verb suppletion under tense (*go ~ went*) raises similar issues

d. Post Vocabulary Insertion, between vocabulary items
       Known as: "simple" cliticization
       Example: English possessive
       Properties: sensitive to vocabulary items
       Consequences:"failure" of cliticization? (haplology?)
               the cats' vs. *the Katz's* (*the boys'* vs. *the men's*)

(12)   **Fission** involves multiple vocabulary insertion at a single node from the syntax.

(13)   Georgian
a. v-xatav   I draw him
b. **v**-xatav-**t**   **We** draw him
c. m-xatav   You draw me
d. **gv-**xatav   You draw **us**
e. m-xatav-t   Y'all draw me
f. g-xatav-t   We draw you or y'all
g. gv-xatav-t Y'all draw us

(14)   More Georgian, complementary distribution among agreement prefixes:

a. g-xatav I draw you   b. v-xatav I draw him (where's the v- in a.?)
b. m-xatav You draw me   c. v-xatav-t We draw him
d. m-xatav-t Y'all draw me
e. g-xatav-t We draw you or y'all
f. gv-xatav You draw us
g. gv-xatav-t Y'all draw us

(15)   Georgian V(ocabulary) I(tem)'s (direct objects are dative in Georgian):

a.   1, DAT, pl   gv-
b.   1, DAT   m-
c.   2, DAT   g-
d.   1   v-
e.   2   ø

Why not, g-v-xatav for 'I draw you'?

(16)   Walpiri (Halle, Hale)

       njurula-Lu ka-nku-tju-lu natju nja-nji
       2pl-ERG PRES-2-1-PL   1sg   see-NONPAST

                 AGR Subj
'You (pl) see me'

(17)   Catalan, opaque clitic clusters (Bonet)
                            l   z   i   (them to him, as in show them to him *les lui* in French)

                     3DatS (z for 3Acc.Masc.Plural)

(18)   Clitics: terminal nodes all attracted to the same location in the syntactic tree (perhaps T in Romance, C in second-position languages).

(19)   a.   Fission: multiple vocabulary items at a single hierarchical level in the syntactic structure.
          b.   Clitics: multiple vocabulary items interacting at, apparently, a single hierarchical level in the syntactic structure. The behavior of clitics and the behavior of the results of fission look similar – multiple sets of features, multiple vocabulary items at a single hierarchical level. Walpiri, Georgian, Catalan: ordering of VI's not explained by syntax, fission, or vocabulary insertion

Impoverishment

(20)   Spanish clitics:
          le Verb   to him Verb (IO clitic)
          lo Verb   it Verb (DO clitic)
          *le lo Verb   to him it Verb
          se lo Verb   to him it Verb ("spurious *se*")
          se los Verb   to them it Verb (some dialects)

(21)   Potawatomi impoverishment at a distance:
Plural (and obviative) are impoverished, over **tense**, when there's a first person plural subject.

a.   *n-wapm-a-mun-ik → n-wapm-a-mun   'we see them'
b.   n-wapm-uk-nan-uk   'they see us'
c.   k-wapm-a-wa-k   'you(pl) see them'
d.   *n-wapm-a-<u>mn</u>-**(w)apunin**-uk → n-wapm-a-mn-(w)apun 'we saw them'
        AGR-see-D/I-AGR-past-Plural
e.   k-wapm-a-<u>m</u>-**wapunin**-uk   'you(pl) saw them'
f.   n-wapm-uk-<u>mun</u>-**(w)apunin**-uk   'they saw us'

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