

September 12, 2006

CLASS 3: AFFIXATION, COMPOUNDING, LEXICALIZATION

DERIVATIONAL MORPHOLOGY

An interesting property of English (any language) is the ability to form **novel words**.

- | | | | | |
|-----|----|---|-----|---------------------------------|
| (1) | a. | rebop | (2) | shusher — shushee — unshushable |
| | b. | bebop | (3) | smorgsaphobia, quirkologist |
| | c. | bop | (4) | deinstitutionalization |
| (5) | | <i>Unbreak my heart, uncry these tears.</i> | (6) | hobbit |

Interesting: We notice novel **words** very easily — but not new or novel **sentences**!

Negative definition of derivational morphology:

Suffixes that are not inflectional must be derivational.

The **base** is a partially complete word form to which a suffix attaches.

- one result is an **inflected word form**, the other a **new lexeme** (derivational)
- the base for an affixation process is what remains when an affix is **removed**

Derivational morphology is **word formation** (often resulting in a **new word class**):

- | | | |
|-----|----|---|
| (7) | a. | happy, unhappy , happiness, unhappiness |
| | b. | care, careless , carelessness, *carelessness |
| | c. | educate, education ; generate, generation |
| | d. | custom, customize , customization |

Affixes attach to roots or stems and form new words; better: they **attach to bases**.

Morphemes come in a **fixed order** and seem to **care what they attach to**:

- | | | | | |
|-----|----|--|--------|-----------|
| (8) | a. | quick – quickly; soft – softly; care – *carely | -ly: | Adj ⇒ Adv |
| | b. | quick – quick ness ; soft – soft ness ; care – *care ness | -ness: | Adj ⇒ N |
| | c. | care – care less – care lessness (*quick less , *soft less) | -less: | N ⇒ Adj |
| | d. | joy – enjoy ; danger – endanger (* enso ft, * en quick) | en-: | N ⇒ V |

So in the above examples, *-ly* attaches to adjectives and forms adverbs, *-ness* attaches to adjectives and forms nouns, *en-* attaches to nouns and gives us verbs. **Generally:**

Principle of Compositionality:

The meaning of the whole is determined by the meaning of its parts.

In all the above examples the meaning of the whole is determined by the meaning of its parts — yes, in the spirit of **compositionality** (but this is not always the case...).

- (9) a. amuse – amusement, enjoy – enjoyment
b. cure – curable – incurable

Some derivational operations:

- N ⇔ N:
'small X', 'female X', 'inhabitant of X', 'state of being an X', 'devotee of/expert on X'
- X ⇔ N:
-ity, -ness, -ism — *-ance/ence, -ment, -ing, -ion/tion/ation, -al, -er* — stress, final C, V
- A ⇔ A:
un- + -able, -ful (English/Germanic) — *in- + -ible, -al* (Latin/Romance)
- X ⇔ A:
passive/participle *-ed, -en, -ing* (test: *very*) — *-able, -ent/ant, -ive* — *-ful, -less, -al, -ish*
- V ⇔ V:
re-, un-, de-, dis- (all through prefixation!) — V-change: transitivity (causativity)
- X ⇔ V:
de-, -ise/ize, -fy/ify — final voicing/V-change — *en- / em-* (plus others, e.g. *-en*)

Did you know...

- (10) a. *lord* = *loaf* 'bread' + *warden* 'guardian'
b. *woman* = *wife* 'female' + *mon* 'person'

OTHER DERIVATIONAL PROCESSES

As flexible and productive as word formation may sometimes appear, there are limits — even in languages like German, when we stumble upon a **closing suffix**:

- (11) *lehr(en)* – *er* – *haft* – **igkeit** – *...
teach – *er* – like an N – *ness*

Blending (also known as one meaning of **portmanteau**):

- (12) a. *smoke* + *fog* = **smog**
 b. *binary* + *digit* = **bit**

Acronyms:

- (13) a. **UCY** = *University of Cyprus*
 b. *Skinheads against Racial Prejudice* = **SHARP**

- distinction: *initialisms* vs. *reverse acronyms*

Eponyms:

- (14) a. **guy** c. **kleenex**
 b. **spartan** d. **atlas**

- based on *personal/geographical/commercial* names, literature, folklore, or mythology

Clipping (or **shortening**, formed by **truncation**):

- (15) a. *influenza* ⇒ **flu** c. *brassiere* ⇒ **bra**
 b. *Jonathan* ⇒ **Jon** d. *typographical error* ⇒ **typo**

Folk etymology:

- (16) a. Spanish *cucaracha* ⇒ **cockroach**
 b. Cree *wuchak* ⇒ **woodchuck**

Backformation:

- (17) a. *surveillance* ⇒ **surveil**
 b. *editor* ⇒ **edit**

Combining forms:

- (18) *anthrop(o)* + *(o)logy*

Phrasal words:

- (19) *jack-in-the-box* (**jacks-in-the-box*, **people-in-the-street* — devoted to syntax)

- only (?) occurrence of left-headed word forms in English? (e.g. *attorney general*)

INFLECTIONAL MORPHOLOGY

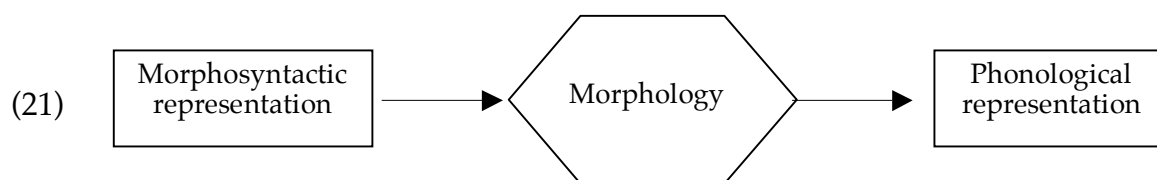
Yes, inflectional morphology is that part of morphology that results in **inflected word forms**. To start from the opposite end: while we all know the regular inflections for words of our language, what do we do with new words aka **coinage**?

(20) €: EURO / ΕΥΡΩ — what's the plural for English: *euro* or *euros* ...?

Morphosyntax:

In general, the interaction between morphology and syntax — more specifically, the type of information that inflection gives to a particular lexeme (⇒ morphosyntactic information).

Another term for this stuff is **morphosyntactic feature** or **morphosyntactic property**.



Exponence:

Exponence refers to the realization of morphosyntactic features via inflection:

- in a one-to-one relationship between form and meaning, we speak of **simple exponence**;
- if more than one morphosyntactic feature maps to a single form, **cumulative exponence**;
- if a single morphological feature is realized on more than one form, **extended exponence**.

(22) a. seas: sea-s [z]

b. sailed: sail-**ed** [d]

(23) a. cant-**o** (Latin)
sing-1SG.PRES.IND.ACT

b. agap-**o** (Modern Greek)
love-1SG.PRES.IND.ACT

(24) **ski-**, **skw-**: 2SG.SUB / 1SG.OBJ (Cherokee) (25) ε-ka:y 'to divorce' (Kujamaat Jóola)
ci:y-: 1SG.SUB / 3SG.AN.OBJ **bu-kə:y** 'a divorce'

(26) a. re:x -isti:
rule.PERF-2SG.ACT.PERF

b. re:x -e:runt (Latin)
rule.PERF-3PL.ACT.PERF

Context-sensitivity:

*Inflection is **context-free** (simple directional mapping between a morphosyntactic feature and a particular phonological string) or **context-sensitive** (when the realization varies).*

(27) [PRES-PART] / [PROGR]: /-ɪŋ/

arguing, rolling, passing, limiting, nodding

- (28) [PAST]:
- | | | |
|----|------------|---|
| a. | ablaut | <i>ran, sat, won, drank, shone</i> |
| b. | suppletion | <i>was, went</i> |
| c. | zero (∅) | <i>hit, cut, put</i> |
| d. | /-t/ | <i>sent, lent</i> |
| e. | /-d/ | <i>helped [-t], shrugged [-d], wanted [-əd]</i> |

Some inflections are **inherent**, while others are **assigned**: e.g. *pants, scissors* vs. *cup-s*. (A typical example of assigned inflection is case, of inherent (pro)nominal gender.)

- **government** — one word dictating the form of another (e.g. V–NP_[CASE])
- **concord (agreement)** — taking morphosyntactic features of another element (N–A)

INFLECTIONAL FORMS OF LEXICAL CATEGORIES

Nominal inflection in English is pretty much restricted to **number**.

- the suffix *–s* is a **plural morpheme** (for **count nouns**) alongside which we can postulate a **zero plural** or **zero suffix** *–∅* (for some domesticated/hunted animals)
- others are formed with a **periphrastic form**
- in other languages, we find **dual** and/or **trial (paucal)** next to singular and plural
- some languages mark **gender** as well (**masculine / feminine / neuter**)

Determiners and **pronouns** don't fit into the **open class**, but:

- there is something interesting here concerning this class of category we can say: e.g. THAT surfaces as *that* or *those*, or SHE as *she/her*, and so on
- **case** in English is marked only on pronouns (the lexeme comes in handy again)
- in other languages, we find different cases: **nominative & accusative** vs. **ergative & absolutive** (*transitive vs intransitive*); **genitive / dative / instrumental / locative**

Verbal inflection marks **person, number, and tense**.

- in English, we really only get third person singular *–s* as verbal inflection (plus past *–ed* and participial *–ing / –en*), but the lexeme BE has a fuller paradigm
- if two or more forms of a lexeme are systematically used elsewhere: **syncretism**
- other languages mark **person** (exclusive vs inclusive and 1st / 2nd / 3rd) and **tense / aspect** (imperfective vs perfective) / **mood / voice** (active vs. passive)

Adjectives in English only mark the dimension of **comparison** (periphrastically).

(You can read up more in Andrew McIntyre's morphology text about lexicalization and other issues I don't touch on here. Consider this handout "additional reading.")

COMPOUNDING

A compound is a word that contains more than one root.

- (29) a. high school, black board, green house, white house, toy factory
[NP phrases]
b. h́ighschool, bláckboard, gréen house, Whíte House, tóy factory
[compounds]

- compound **verbs**: VV, NV, AV, PV (these are all **right-headed**)
- compound **adjectives**: NA, AA, PA (?*VA: *fail-safe*, **sing-happy*)
- compound **nouns**: VN, NN, AN, PN (main **stress** on left, right-headed)
- note: **nonce forms** ('a particular occasion') / **hapax legomena** ('said once')

Headless compounds are also known as **exocentric** compounds ("center outside").

- (30) a. *faintheart* (not about a heart or a faint), *pickpocket*, *killjoy*, *cutpurse*
b. *take-off*, *sell-out*, *wrap-in*, *sit-in* (VP–N)
c. *overland*, *in-house*, *offshore*, *downmarke* (PN–A)t

Right-headed compounds (the majority of compounds in English) and **left-headed** compounds (the famous *attorney general* cases) are **endocentric** ("center inside").

COMPOUNDS: SOME PROPERTIES

Compounding is **recursive**.

- (31) a. film society
b. student film society
c. [...] student film society committee
d. [...] student film society committee member

Compounds have a **constituent structure** (allowing disambiguation).

- (32) a. student [film society]
b. [student film] society

Elements are **related** to each other: head-modifier, predicate-argument, apposition.

- (33) a. film society, hand-wash, footpath ...
b. truck driver, language teacher ...
c. learner-driver, mother-child ...

Compounds can be **endocentric** or **exocentric**:

- (34) a. film society, truck driver ...
b. pickpocket, push up ...

Lack of referential properties of the non-head:

- (35) a. film society (no reference to specific film)
b. truck driver (no reference to a specific truck)

Compounds show **morphological integrity** (cannot be split up by other elements).

- (36) a. greenhouse, *greenerhouse
b. doghouse, *dogshouse

Likewise, compounds show **lexical integrity**.

- (37) a. A: Which student film society committee member did you see?
B: The tall one. / The one with glasses. / The German one.
b. A: Which society committee member did you see?
B: *The student film one.
c. A: Which member did you see?
B: *The student film society committee one.

PRIMARY VS SECONDARY COMPOUNDS

Primary (root) compounds are formed with simple words,
e.g. *greenhouse*, *postal order*.

Secondary (verbal, synthetic) compounds have a complex word as their head,
e.g. *truck driver*, *truck driving*.

What counts as a synthetic compound?

- The non-head is an **argument**: *truck driver*, *slum clearance*...
- Perhaps passive **participles**: *hand-made*, *moth-eaten*...
- Perhaps compounds based on **adjectives**: *machine readable*...

Properties of synthetic compounds:

1. The verb's **internal argument** is satisfied by the non-head:
drive a truck – truck driver
2. The **subject** can never be the non-head:
*child driver (a child who drives)
3. The non-head could be an **adjunct**:
act fast – fast acting, eaten by moths – moth eaten
4. The heads of synthetic compounds inherit the **argument structure** of the verb

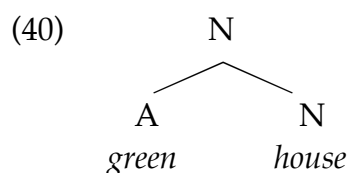
WORD STRUCTURE

Based on **structural properties**, we can investigate possibilities and generalizations:

- (38) a. Input ⇒ Output
 Lexeme A Lexeme B
- b. Input ⇒ Output
 Lexeme B Lexeme C
- c. Input ⇒ Output₁ ⇒ Output₂ ⇒ Output_n
 Lexeme A Lexeme B Lexeme C Lexeme Z

compounding:

- (39) [[non-head] head]

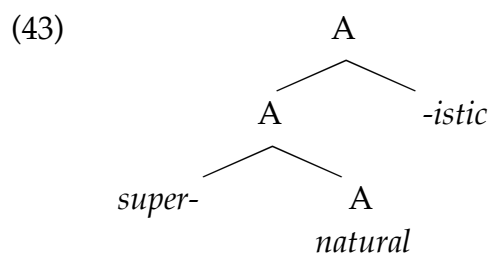
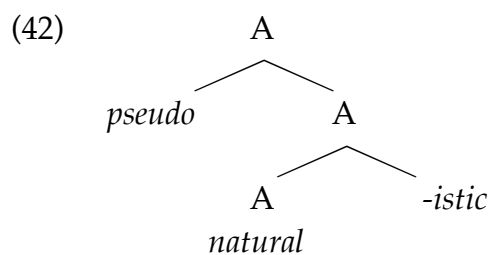


For your interest: **head operation**
 (we won't discuss these any further).

- flower child ⇒
 flower children, *flower childs
- frogman ⇒
 frogmen, *frogmans (*walkmans*)

derivation:

- (41) [₃prefix- [[[ROOT] -suffix₁] -suffix₂]]
 [BASE₁]
 [BASE₂]
 [BASE₃]



inflection (more on this station next week):

- (44) [[[[[ROOT] -suffix_D] -suffix_D] -suffix_I] *-suffix_D]

Concerning derivations, consider **reversative -un**, for example (and some exercises):

- (45) a. **undressed**
 b. **unpacked**
 c. **unzipped**
- (46) a. lawnmower
 b. biodefenses
 c. insightful