

BASICS OF WORDS AND WORD FORMATION (MORPHOLOGY)

1. INTRODUCTION

Linguistic Creativity

Our ability to produce, understand and make judgments about an infinite range of sentences – including novel sentences.

For the first time in California history a sitting governor has been recalled.

A sentence that we never heard before October 7, 2003, but whose meaning is perfectly clear to us. How do we know what this sentence means if we've never encountered it before?

Principle of Compositionality

The meaning of a sentence is determined by the meanings of its words and their syntactic configuration (structure).

- (1) *Arnold beat Gray.*
- (2) *Gray beat Arnold.*

Internal structure of words

The decriminalization of marijuana
decriminalization
decriminalize
criminalize
criminal
crime
recriminalize
recriminalization
*recriminal, *recrime

Knowledge about the internal structure of word is contained in the Lexicon= THE MENTAL DICTIONARY

What we really know is not just words:

- ✓ Root" words
 - man, wife, dog, cat, true, false, walk, run
 - woman, fiction, hippopotamus, procrastinate

- ✓ Names
 - Martin Luther ≠ Martin Luther King, Julius Caesar ≠ César Chavez, UCLA ≠ ACLU
 - George Burns vs. Nathan Birnbaum, Leonard Slye vs. Roy Rogers
- ✓ Compounds
 - boxboy
 - box score
 - box car
 - box office
 - box seat
- ✓ Idioms
 - You two are dumber than a bag of hammers!
 - I'll crack the whip.
 - He missed the boat.
 - I'm sick and tired of it.
 - I ran into her.

2. WHERE DO ALL THOSE WORDS COME FROM?

Morphology: The study of the internal structure of words, rules for combining parts of words to make complex words.

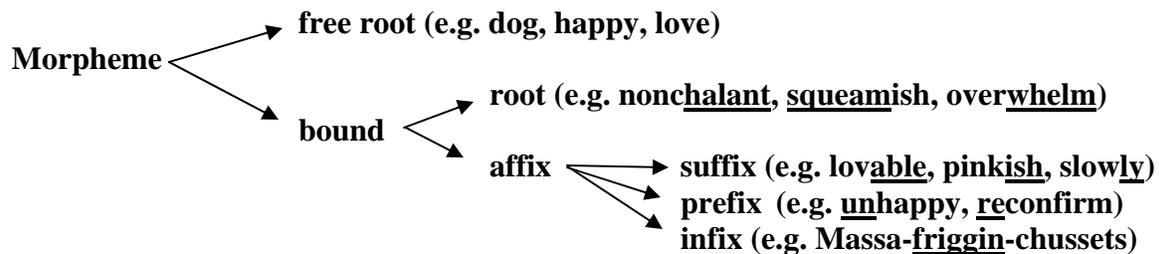
Our knowledge of morphological rules allows us:

- to understand words we have never encountered before.
- to judge that words are impossible.
- to create new words (one of the means of language change).

Types of Morphemes

- **Morpheme:** the minimal unit of meaning, an arbitrary pairing of sound and meaning.
- Every word is composed of one or more morphemes.

- Free and bound morphemes



Types of affixes

- **Prefixes:** non-conformist, unclear, anticatholic, rebook, co-sponsor, dis-en-tangle
- **Suffixes:** cats, falsehood, catholicismu, pinkish, confirming, nation-al-ist-ic-al-ly
1 2 3 4 5
- **Infixes:** Tagolog: *sulat* 'write' + infix -um- → *sumulat* 'to write'
bili 'buy' + infix -um- → *bumili* 'to buy'

Does English have any infixes?



-Massa-friggin-chussets

- ✓ Infixes go *inside the root*
- ✓ The underlined elements in the following words are *not* infixes
 - dis-em-power
 - nation-al-ist-ic-al-ly
- ✓ But the one below *would* be an infix
 - un-be-stinking-lieve-able
- **Circumfixes:** ahkmunahsyac (Kosraean)

• Derivational and Inflectional processes

Derivational affixes

| | |
|--|---------------------|
| (1) Form “new” words (the “base” meaning of the derived form differs from that of the stem from which it was derived). | |
| false | → false <u>hood</u> |
| pink | → pink <u>ish</u> |
| true | → <u>un</u> true |
| confirm | → <u>re</u> confirm |
| nation | → nation <u>al</u> |

Inflectional affixes

| | |
|--|--------------------------|
| (1) Do not form “new” words (“base” meaning of the inflected form is the meaning of the stem). | |
| English has only 9 inflectional affixes: | |
| -s plural | cat → cat <u>s</u> |
| -s 3rd pres. sing. | sit → he sit <u>s</u> |
| -’s possessive | John → John’ <u>s</u> |
| -ed past | walk → walk <u>ed</u> |
| -en past participle | break → broken <u>en</u> |

| | |
|---|--|
| national → nationalist nationalist → nationalistic catholic → anticatholic anticatholic → anticatholicism | -ing present part. walk → walking -er comparative pink → pinker -est superlative pink → pinkest -m "accusative" who → whom |
| (2) <i>May</i> change part of speech N → V slave → <u>enslave</u> V → N dismiss → <u>dismissal</u> N → A friend → <u>friendly</u> A → N tall → <u>tallness</u> A → V black → <u>blacken</u> V → A read → <u>readable</u> BUT N → N friend → <u>friendship</u> V → V do → <u>undo</u> A → A pink → <u>pinkish</u> | (2) Do not change part of speech and are usually required by rules of grammar. two <u>cats</u> <i>not</i> *two cat he <u>sits</u> <i>not</i> *he sit John's <u>cat</u> <i>not</i> *John cat we <u>walked</u> yesterday <i>not</i> *we walk yesterday the vase has <u>broken</u> <i>not</i> *... has broke he is <u>walking</u> <i>not</i> *he is walk he is <u>taller</u> than me <i>not</i> *he is tall than me he is the <u>tallest</u> <i>not</i> *he is the tall |

What happens if an affix is used wrongly?

- ✓ Derivational
 - *smarthood instead of smartness
 - *chlorinify instead of chlorinate

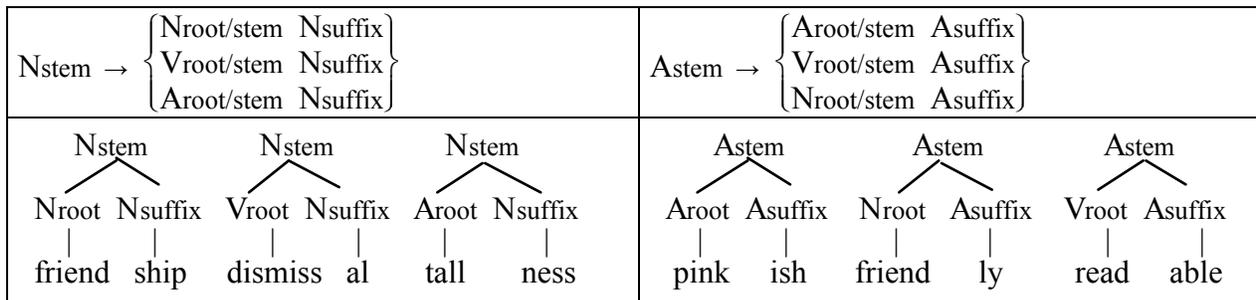
“ ill-formed WORDS ”
- ✓ Inflectional
 - *he is walks instead of he is walking
 - *I have two cat instead of I have two cats

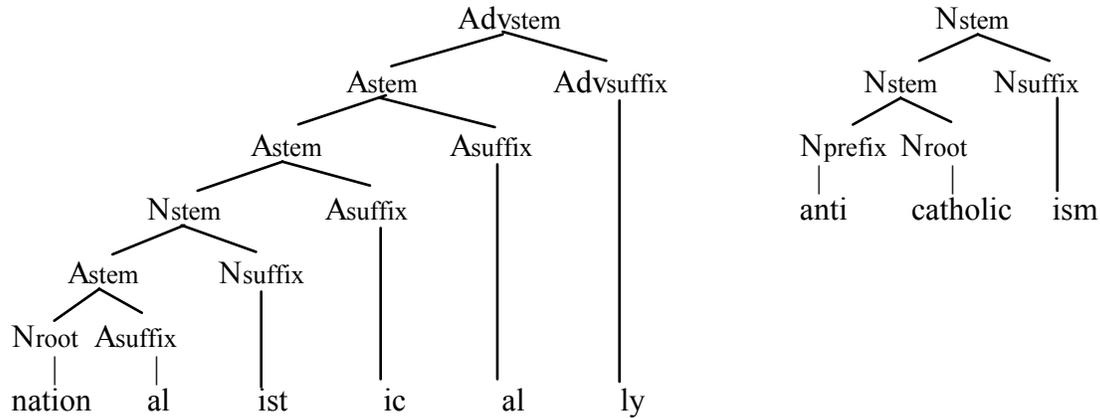
“ ill-formed (= ungrammatical) SENTENCES ”

• A model for combining elements to create words

Morphological rules specify:

- the affix to be attached (e.g. -able)
 - the category of the free morpheme it attaches to (e.g. verb)
 - the category of the resulting morpheme (e.g. adjective)
- ✓ Word formation *is* a labeled hierarchical structure, for example





Structural Ambiguity

unlockable:

- cannot be locked
 1. lock
 2. lock-able
 3. un-lock-able

- can be unlocked
 1. lock
 2. un-lock
 3. un-lock-able

SUMMARY OF OUR “INSTINCTS” ABOUT MORPHEME MEANING AND USE

- We know that words are composed of smaller parts—ROOTS AND AFFIXES
- We know that some morphemes make new words and others are required by grammar—DERIVATION AND INFLECTION

MOREOVER..

- We know which morphemes can and cannot be combined to form words—what kinds of concepts can we “-ize”?
- We know how to be creative with morphemes and morphology—where did “*jogathons*” come from?

- Interpreting derived words and creating new derived forms

Our tacit knowledge of the internal structure of words allows us to ...

- Interpret the meanings of words we have not heard before:

nominalize, solemnize, dieselize

- Create words not heard before but interpretable by and acceptable to hearers:

linguisticize, Macintoshize, Las Vegatize
Schuhism, Macintoshism

- Know combinations which would be impossible:

**scatterize, *arrivize, ?*bitterize, ?*electricize*

**absentism* (but *absenteeism*), **racialism* (but *racism*), **arguism*

(WHAT WE KNOW: *-ize* is a Vsuffix which can be make verb stems only from adjectives or nouns which do not already have another verb stem form (hence **bitterize*); *-ism* is a Nsuffix which can be added only to noun roots or stems to form nouns)

- Morphological creativity

Because we know general principles of word formation, we can ...

- Extend morphological processes to new *environments* (in effect, create new rules)

| Prefix <i>un-</i> | Regular uses | | New uses | |
|-------------------|--------------|--------------|-----------------|--------|
| | common | uncommon | cola | uncola |
| friendly | unfriendly | Mother's Day | un-Mother's Day | |
| natural | unnatural | Wedding | un-wedding | |

- Create *new affixes*, which can be combined with other stems to form new words:

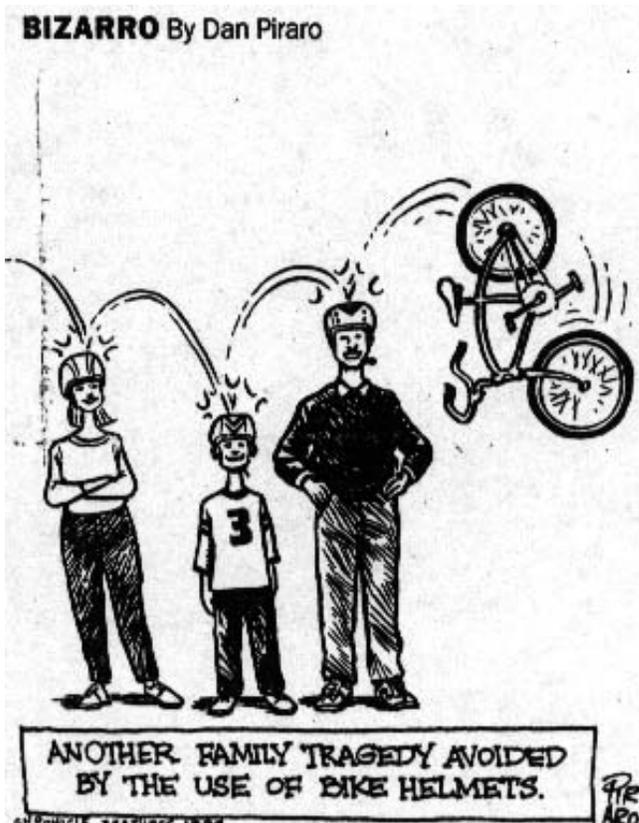
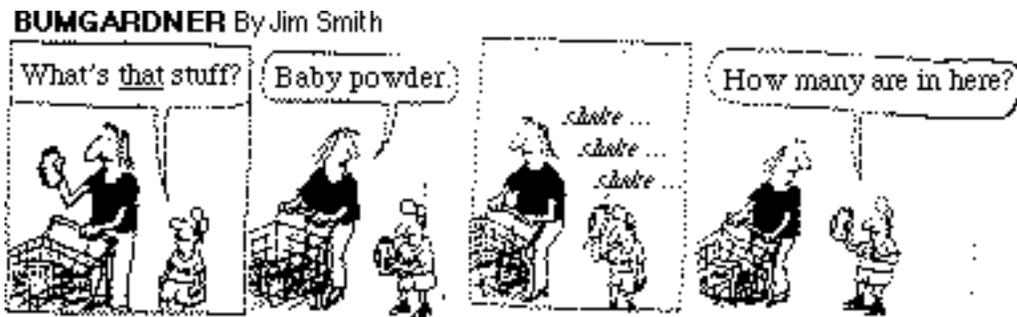
| <i>-athon</i> | | <i>gives</i> | |
|--|--|--------------|-----------|
| marathon | | | telethon |
| (originally the name of a place in Greece, then the name of a 26.2 mile race, then extended to mean an event of exhausting proportion, e.g. 'a marathon fund drive') | | | dancethon |
| | | | bowlathon |
| | | | jogathon |
| | | | etc. |

Compounding and idioms: making words from words

- Compounds

COMPOUND: a combination of two or more words to make a single word whose meaning cannot necessarily be predicted from the meanings of the component words.

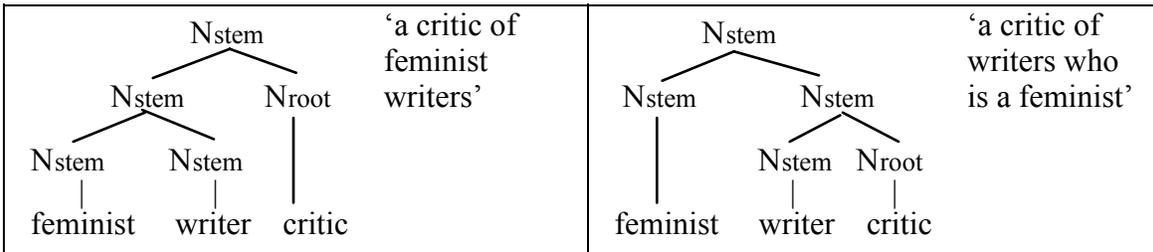
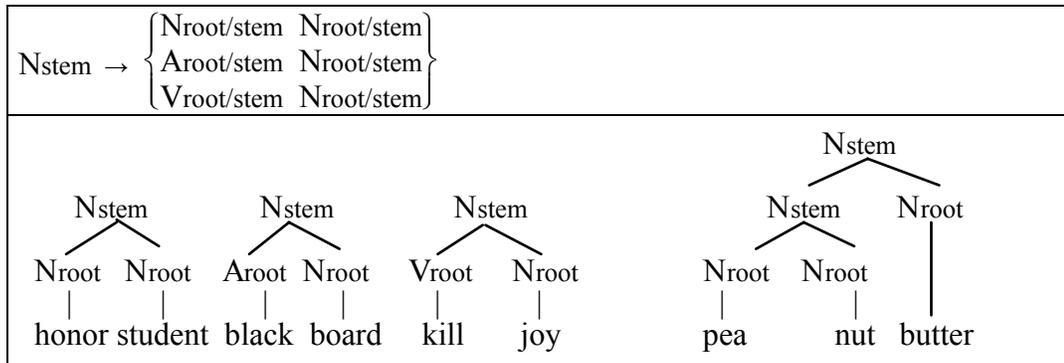
- **Productivity of compounding:** Compounding is the most productive word formation process in English. Essentially any two words can be combined to form a compound. Moreover, there is no limit in principle on how many words may enter into a compound, making it an *infinitely* productive process.
- **Meaning of compounds:** The meaning of a compound cannot be predicted from the meaning of the words from which it is formed. Compounds are thus *listemes*, i.e. they must be learned as if they were individual words. The combinations of words in compounds would often permit several interpretations, making jokes like the one below possible ("powder *made of* babies" instead of "powder *for* babies").



- **Writing compounds in English:** Frequently used compounds are often written as one word, but English spelling is inconsistent, sometimes writing a compound as one word, sometimes linking the words with hyphens, sometimes separating the words:

leapfrog, wallpaper, blacklist
drive-in, wall-to-wall, black-hearted
leap year, wall plug, black belt (Karate expert)

- **Forming compounds:** the structure of compounds can be described similarly to that for derived words, the difference being that the compound is formed by combining *stems*, whereas derivational morphology combines an *affix* and a stem. For example,

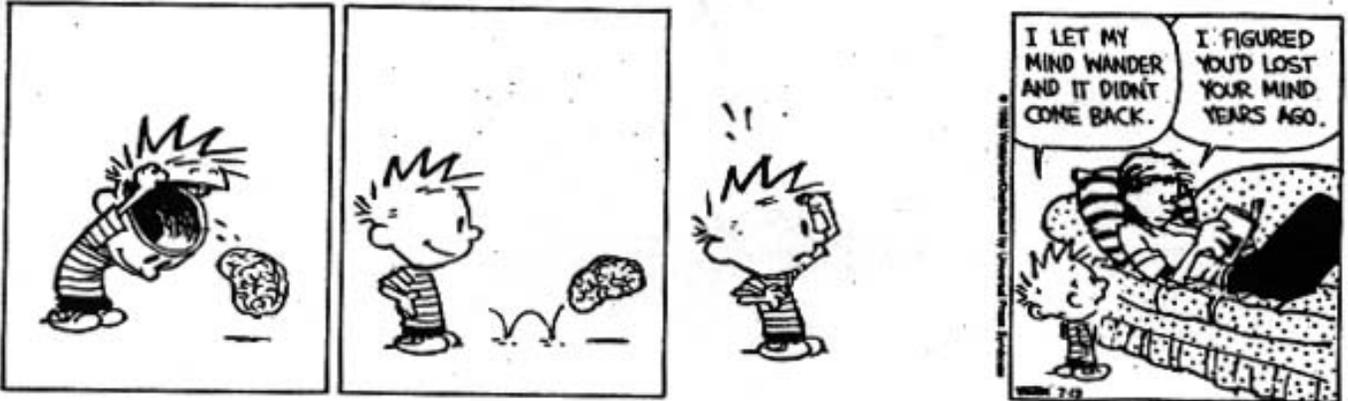


Note that the “head” (the thing the compound is about) is always to the right.

• Idioms

- The meaning of an idiom cannot be predicted from the constituent parts (a feature shared with compounds)—idioms are therefore “listemes”.
- Idioms are phrases, not words (a feature not shared by compounds); there is therefore nothing about the pronunciation of an idiom which signals that it differs from a normal phrase, and most idioms can undergo all the same syntactic processes that a phrase of the same structure would undergo.
 - He lets/let/is letting his mind wander.
 - He thinks he's all that and a bag of chips.
 - It's gonna rain/it's raining cats and dogs.

Some idioms: $\left. \begin{array}{l} \text{dead to the world} \\ \text{hold one's horses} \\ \text{rain cats and dogs} \\ \text{be a pain in the neck} \\ \text{etc.} \end{array} \right\}$

CALVIN AND HOBBS By Bill Watterson**Summary**

- ✓ Morphemes: two types of functions
 - Derivation: form new words
 - Inflection: show grammatical functions
- ✓ Speakers' knowledge of morpheme use
 - Ways we can and cannot combine morphemes
 - Creating new morphemes
 - Complex words as labeled trees
- ✓ Compounds and idioms: listemes created from full words