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Introduction to Linguistic
Theory

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**Morphology:
The Words of
Language**

The Words of Language

- In spoken language we don't pause between most words
- So when you hear a sentence in a language you don't know, you won't be able to tell where one word ends and the next begins
- Most English speakers can pick out all of the words in *The cats at the mat* because they can identify all those words

The Words of Language

- These boundaries between words can be played with for humor, as in the credits for NPR's Car Talk:
 - Copyeditor: Adeline Moore
 - Pollution Control: Maury Missions
 - Legal Firm: Dewey, Cheetham, and Howe

The Words of Language

- We all have a mental dictionary of all the words we know, which includes the following information:
 - Pronunciation
 - Meaning
 - Orthography (spelling)
 - Grammatical category

Content Words and Function Words

- **Content words:** the words that convey conceptual meaning (nouns, verbs, adjectives, etc.)
 - **Open class:** new types of content words can be added all the time
 - E.g. a new noun called a *flurg* would be fine
- **Function words:** the words that convey grammatical meaning (articles, prepositions, conjunctions, etc.)
 - **Closed class:** new function words are very rarely added to a language
 - English does not have a gender-neutral third person singular pronoun, and rather than adopt a new pronoun, many people use *they* instead of choosing between *he* and *she*.

Content Words and Function Words

- The brain treats content and function words differently
 - Some aphasics are unable to read the function words *in* and *which* but can read the content words *inn* and *witch*.
 - Content words may be inadvertently switched in speech, but there is no documentation of function words being switched in this way
 - Children often omit function words from their speech when learning their first language (“doggie barking”)

Morphemes

- **Morphology:** the study of the structure of words and the rules for word formation
- **Morpheme:** the minimal units of meaning
 - Morphemes can be words on their own, and/or can often be combined with other morphemes to make words
 - E.g. the word *book* has one morpheme
 - E.g. the word *books* has two morphemes:
book + *-s*
N plural marker

Morphemes

- Discreteness: In all languages, sounds combine to make morphemes, morphemes combine to make words, and words combine to make sentences
- Creativity: We can combine morphemes in new ways to create new words that can easily be understood
 - *writable*
 - *rewritable*
 - *unrewritable*

Bound and Free Morphemes

- **Free morphemes** can stand alone
 - E.g. *love* is a single morpheme that can be uttered with no other morphemes connected to it
- **Bound morphemes** cannot stand alone, and must be attached to other morphemes
 - E.g. *un-* and *-ish* are bound morphemes because they cannot stand alone

Bound and Free Morphemes

- **Prefixes:** bound morphemes that attach to the *beginning* of a root
 - E.g. *un-* as in untie
- **Suffixes:** bound morphemes that attach to the *end* of a root
 - E.g. *-ness* as in kindness

Bound and Free Morphemes

- Languages may differ in how they use affixation
 - What is a prefix in one language may be a suffix in another
 - Isthmus Zapotec plural prefix *ka-*
 - What is an affix in one language may not be expressed with affixation in another
 - English *dance* (N) and *dance* (V)
 - What is a separate word in one language may be an affix in another
 - Piro (Peru) has a suffix, *-kaka*, that means “cause to”, thus *cokoruhakaka* means “cause to harpoon”

Bound and Free Morphemes

- **Infixes:** morphemes that are inserted inside a root

– Bontoc (Phillippines):

fikas “strong” *fumikas* “to be strong”

kilad “red” *kumilad* “to be red”

- **Circumfixes:** affixes that attach to both the beginning and the end of a root

– Chickasaw (USA):

• *chokma* “he is good” *ikchokmo* “he is not good”

• *lakna* “it is yellow” *iklakno* “it is not yellow”

Roots and Stems

- **Roots:** the morpheme base upon which other morphemes are attached to create complex words: *un-love-able*
- **Stems:** once an affix has been attached to a root, the result is called a stem to which more morphemes may be attached: *un-lovable*

Roots and Stems

- **Bound roots:** Roots that cannot stand alone and can only occur in combination with other morphemes
 - *-ceive: receive, conceive, perceive, deceive*
 - *Ungainly (*gainly), discern (*cern), nonplussed (*plussed)*
 - *Huckleberry, lukewarm, cranberry*

Rules of Word Formation

- **Derivational morphemes** change the meaning and/or part of speech of a root
 - Adding *-un* to the word *do* changes the meaning drastically
 - Adding *-ish* to the noun *boy* creates the adjective *boyish*
- Derivational morphemes carry semantic meaning and are like the affix version of content words

Rules of Word Formation

- When a new word is created through derivation, other possible derivations may be blocked
 - *Communist* exists, therefore we don't need *Communitite* or *Communian*
- Some derivations trigger pronunciation changes, while others do not
 - *specificu* → *specificity* and *Elizabethe* → *Elizabethan*
vs.
 - *bakee* → *baker* and *wishh* → *wishhful*

Rules of Word Formation

- **Inflectional morphemes** have only grammatical function (similar to function words) and never change the part of speech of the root
 - *waited*, *waits*, *waiting*
- Inflectional morphemes are always suffixes in English and always follow any derivational morphemes
 - *commit* + *ment* can become *commit* + *ment* + *s* but not *commit* + *s* + *ment*

Rules of Word Formation

- Inflectional morphemes are **productive**, meaning they apply freely to almost any appropriate base
 - Most nouns will take the inflectional suffix –s to make a plural noun
 - Only some nouns will take the derivational suffix –*ize* to make a verb

Rules of Word Formation

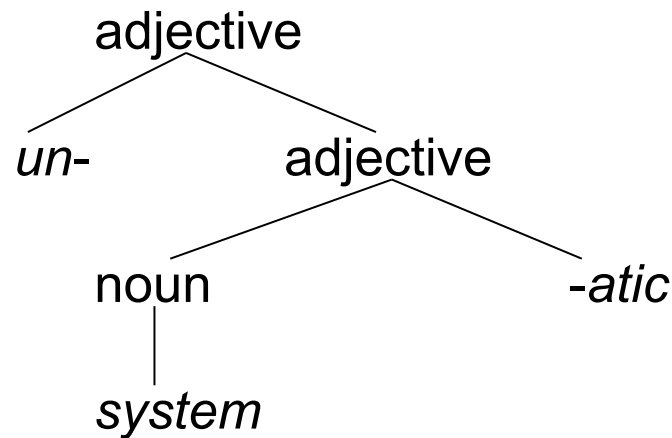
- Some languages use **case morphology**, where the grammatical relations of nouns are marked with inflectional morphemes
- In Russian, the sentence “Maxim defends Victor” can have a variety of word orders:

Maksim zašičajet Viktora.
Maksim Viktora zašičajet.
Viktora Maksim zašičajet.
Viktora zašičajet Maksim.

- This is because the *–a* in *Viktora* marks the object of the sentence, regardless of the word order

Hierarchical Structure of Words

- Morphemes are added to a base in a fixed order which reflects the structure of a word
- *unsystematic* = *un* + *system* + *atic*

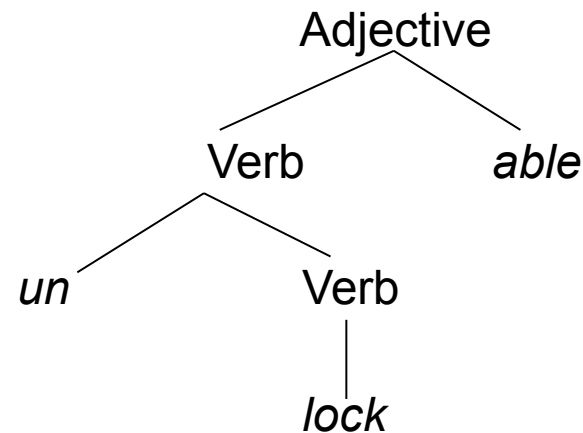
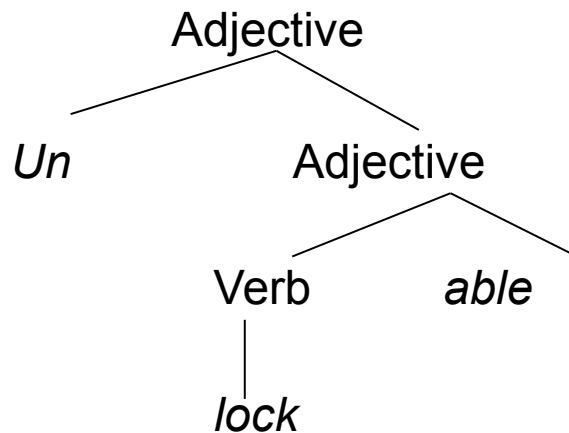


Hierarchical Structure of Words

- The example of *unsystematic* represents the application of two morphological rules:
 - Noun + *-atic* → Adjective
 - *un-* + Adjective → Adjective
- In the case of *unsystematic*, this is the only possible hierarchy, as **unsystem* is not a word

Hierarchical Structure of Words

- The hierarchical structure of words can help disambiguate ambiguous words:
- *unlockable* could mean:
1) “not able to be locked” or 2) “able to be unlocked”



Rule Productivity

Derivational affixes are productive to different extents:

- *-able* can be affixed to any verb to create an adjective
- *un-* is most productive for adjectives derived from verbs and words with polysyllabic bases
 - *unsimplified, unenlightened, and unhappy*, but not **unsad, *unbrave, or *untall*

Rule Productivity

- Exceptions and **Suppletions**:
 - Not all words undergo regular morphological processes (e.g. *feet, went, sing, children*)
 - These words must be learned separately since rules don't apply to them
 - When new words enter the language, regular morphological rules generally apply to them
 - The plural of *fax* became *faxes* rather than *faxen*
 - Borrowed words may retain borrowed morphology
 - Latin *datum* and *data* (rather than **datums*)

Lexical Gaps

- **Lexical Gaps** (Accidental Gaps): words that could be in a language but aren't
 - Some permissible sound sequences have no meaning (e.g. *blick*)
 - Some combinations of morphemes are never used (e.g. *curiouser*)

Other Morphological Processes

- **Back-formations:** new words can be created through misanalysis of morpheme boundaries

– *pease* → *pea*

– *bikini* → *tankini*

– *editor* → *edit*

– *television* → *televise*

Other Morphological Processes

- **Compounds:** joining two or more words together to make a new word (e.g. *landlord*)
 - The rightmost word in a compound is the head, which determines its meaning and part of speech
 - Noun + adjective = adjective (*headstrong*)
 - The stress on English compounds falls on the first word
 - *greenhouse* vs. *green house*
 - Two-word compounds are the most common, but there may not be an upper limit
 - Dr. Seuss' s “Tweetle beetle puddle paddle battle”

Other Morphological Processes

- The meaning of a compound is not always the sum of the meaning of its parts
 - *Blackboard*
 - *Cathouse*
 - *Turncoat*
- Compounding is a universal process for creating new words

Other Morphological Processes

- We can use our knowledge of morphemes and morphological rules to guess the meaning of words we don't know
- Our guesses may be wrong but they are based on morphological (mis)analysis
 - *deciduous* “able to make up one's mind”
 - *bibliography* “holy geography”
 - *gullible* “to do with sea birds”

Sign Language Morphology

- Like spoken languages, signs have parts of speech, roots and affixes, and morphemes that can be free, bound, derivational or inflectional
- Like spoken languages, sign languages have rules for combining morphemes to make complex signs

Sign Language Morphology

- Affixation can occur by adding another sign before or after the root sign
 - The negation suffix is a rapid turning over of the hand(s) after the root sign
- Sign languages can also allow the stem and the affixes to be signed simultaneously, an option not available in spoken languages

Morphological Analysis

<i>nokali</i>	“my house”
<i>nokalimes</i>	“my houses”
<i>mokali</i>	“your house”
<i>ikali</i>	“his house”
<i>nopelo</i>	“my dog”
<i>mopelo</i>	“your dog”
<i>mopelomes</i>	“your dogs”

- Look for recurring forms with recurring meanings to identify each morpheme

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“your dogs”

Morphological Analysis

kali “house”

pelo “dog”

no- “my”

mo- “your”

i- “his”

mes- “plural”