

LING 201

**Morphology**

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**What is Morphology?**

➤ Definition: the study of the construction of words out of morphemes

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**Morphemes (I)**

➤ Definition: smallest linguistic unit that has a meaning or grammatical function

- free morpheme: morphemes that can stand alone as words (ex) *clock, sick*
- bound morpheme: morphemes that always attach to other morphemes, never existing as words themselves (ex) *-ly, non-*

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**Morphemes (II)**

Morpheme  
(according to positions)

Free (Stem) (ex) <i>tiger</i>	Bound (Affix)
Prefix (ex) <i>non-refundable</i>	Infix (ex) <i>Cinder-fucking-rella</i>
	Suffix (ex) <i>friend-ly</i>

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**Morpheme (III)**

➤ Categorization according to functions:

- derivational morphemes: morphemes that change the meaning or lexical category of the words to which they attach (ex) *multi-, -ation*
- inflectional morphemes: morphemes that serve a purely grammatical function, never creating a new word but only a different form of the same word (ex) *-ed, -'s*
- in all languages, there are many derivational affixes but only a limited number of inflectional affixes

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**Morphemes (IV)**

Morpheme  
(according to functions)

Free (Stem) (ex) <i>tiger</i>	Bound (Affix)
Derivational (ex) <i>re-union</i>	Inflectional (ex) <i>book-s</i>

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## Inflectional Morphemes (I)

Suffix	Function	Example	Suffix	Function	Example
-s	3 <sup>rd</sup> per. sg. pres.	kicks	-s	pl.	books
-ed	past	kicked	's	poss.	book's
-ing	prog.	kicking	-er	comp.	colder
-en	past. part.	fallen	-est	super.	coldest

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## Inflectional Morphemes (II)

- do not change meaning or part of speech, just add extra grammatical information
  - (ex) *shoe, shoes, shoe's* → nouns
- required by syntax
- very productive
- occur at the margin of a word, after any derivational morphemes
  - (ex) *sens-ib-iliti-es*
- not listed in the dictionary
- in English, only suffixes

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## Derivational Morphemes

- create new words, listed in the dictionary (ex) *happy* vs. *happiness*
- change the part of speech or the meaning of a word
  - (ex) part-of-speech: *us-able* (V→A), *trouble-some* (N→A), *happi-ness* (A→N), *judg-ment* (V→N), *symbol-ize* (N→V), *happi-ly* (A→Adj)
  - (ex) meaning: *anti-feminist, dis-comfort, ex-boyfriend, bi-sexual*
  - (ex) both: *use-less* (V→A)
- not required by syntax
- usually not very productive (ex) *dis-like, \*dis-hate*
- occur before inflectional suffixes
  - *work-er-'s*
- in English, can be prefixes or suffixes

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## Cranberry Morphemes

- “cranberry morphemes”: morphemes that have no constant associated meaning
  - *cranberry, huckleberry, boysenberry*
  - *permit, commit, submit*
  - *receive, perceive, conceive*

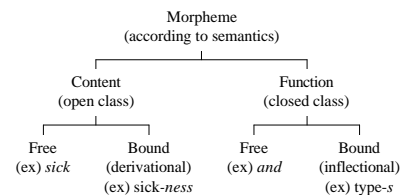
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## Morphemes (V)

- Categorization according to semantics:
  - content morphemes: morphemes that carry a semantic content as opposed to performing a grammatical function (ex) *car, -able, -un,*
  - function morphemes: morphemes that provide information about the grammatical relationships between words in a sentence (ex) *the, -s, he, or, to*

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## Morphemes (VI)



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## Homonyms

- ☛ Caution! Morphemes are pairings of *sounds* with meanings, not *spellings* with meanings
- ☛ Homonym: two or more distinct words with the same pronunciation and spelling but different meanings
  - *cans* (n) vs. *can's* (n) vs. *cans* (v)
  - *-er/-or* (comparative vs. agent)
    - sweet-er* vs. *act-or* vs. *report-er*
  - *date* (fruit vs. appointment)

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## Interaction of phonological and morphological processes

- ☛ Allomorph: nondistinctive realizations of a particular morpheme that have the same function and are phonetically similar
  - *Joe's* [z] vs. *Pat's* [s] vs. *Liz's* [əz]
  - *kicked* [t] vs. *loved* [d] vs. *tilted* [əd]
  - *wife* [wayf] vs. *wives* [wayv]
  - *sign* [sayn] vs. *signature* [sɪgn]
  - *divide* [dɪvayd] vs. *divisible* [dɪvɪz]
  - *incomparable* [ɪn] vs. *inacceptable* [ɪn] vs. *impossible* [ɪm]

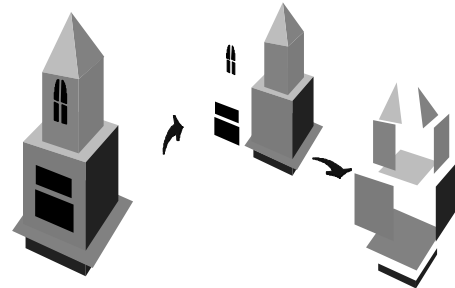
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## Beware of Pitfalls!

- ☛ morpheme ≠ syllable
  - *clouds* (2m1s) vs. *flower* (1m2s)
- ☛ not every instance of the sound sequence in the language represents the morpheme
  - *runs* vs. *kids* vs. *John's* vs. *whiz* [z]
- ☛ do not be fooled by the spelling
  - *ed-ible* vs. *wash-able*

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## Hierarchical Structure (I)



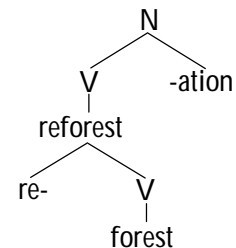
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## Hierarchical Structure (II)

- ☛ *re-* + V 'do V again'
  - *re-write*, *re-do*, *re-cycle*, *re-tell*
  - *re-usable?* *re-forestation?* *re-analysis?*
- ☛ *un-* + A 'not'
  - *un-easy*, *un-conscious*, *un-even*, *un-wary*
  - *un-decide-ed?*, *un-worthiness?*, *un-world-ly?*

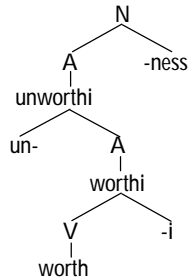
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## Hierarchical Structure (III)



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## Hierarchical Structure (IV)



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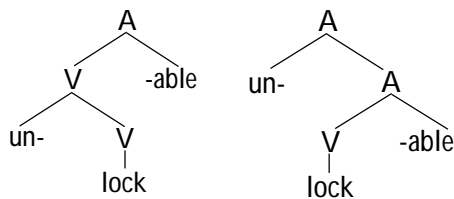
## Word Formation Processes

➤ Word formation process: how new words are being formed in the language

- productive morpheme: characteristic of a morpheme such that it is used to form new words
  - (ex) *-ness* is more productive than *-tion* in making nouns

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## Ambiguity



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## Major Word Formation Processes I

➤ Affixation: process of forming words by adding affixes to morphemes

- V + *-able* → A: *predict* + *-able*
- V + *-er* → N: *sing* + *er*
- *un-* + A → A: *un-productive*
- A + *-en* → V: *deep* + *-en*, *thick* + *-en*

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## Major Word Formation Processes II

➤ Compounding: word formation process by which new words are formed by combining two or more independent words

- A + A → A: *bittersweet*
- N + N → N: *rainbow*
- V + V → V: *sleepwalk*
- P + P → P: *without*
- V + N → N: *pickpocket*
- N + V → V: *spoonfeed*
- P + V → V: *overdo*
- V + A → A: *headstrong*
- *redskin* vs. *red skin*, *bluebird* vs. *blue bird*

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## Major Word Formation Processes III

➤ Reduplication: process of forming new words either by doubling an entire word (total reduplication) or part of a word (partial reduplication)

- *Humpty-dumpty*, *higgledy-piggledy* (partial reduplication)
- [T] *ang* 'red' vs. *angang* 'reddish' vs. *angangang* 'very red' (total reduplication)
- [Tagalog] *bili* "buy" vs. *bi-bili* "will buy", *kain* "to eat" vs. *ka-kain* "will eat", *pasok* "to go" vs. *pa-pasok* "will go" (partial reduplication)

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## Major Word Formation Processes IV

➤ Morpheme-internal changes: a type of word formation process wherein a word changes internally to indicate grammatical information; there is no regularity

- *sleep vs. slept, fall vs. fell vs. fallen, know vs. knew vs. known, write vs. wrote, break vs. broke*
- *child vs. children, man vs. men, woman vs. women, mouse vs. mice, crisis vs. crises, goose vs. geese, tooth vs. teeth, foot vs. feet*
- *live vs. live (v) vs. live (a), teeth vs. teethe*

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## Major Word Formation Processes V

➤ Suppletion: a relationship between forms of a word wherein one form cannot be phonologically or morphologically derived from the other; this process is rare

- *am vs. was, go vs. went*
- *good vs. better, bad vs. worse*

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## Minor Word Formation Processes I

➤ Acronym: abbreviations formed by taking the initial sounds (or letters) of the words of a phrase and uniting them to form a pronounceable word

- *laser → light amplification by simulated emission of radiation*
- *scuba → self-contained underwater breathing apparatus*
- *radar → radio detecting and ranging*
- *snafu → situation normal, all fowled up*
- *AIDS → Acquired Immune Deficiency Syndrome*

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## Minor Word Formation Processes II

➤ Blending: process of creating a new word by combining the parts of two different words, usually the beginning of one word and the end of another (cf. compound)

- *breakfast + lunch → brunch*
- *smoke + fog → smog*
- *motor + hotel → motel*
- *European + rail → Eurail*
- *European + passport → Europass*

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## Minor Word Formation Processes III

➤ Back formation: word formation process in which a new base form is created from an apparently similar form by using proportional analogy

- *revise : revision = X : television (X = televise)*
- *actor : act = editor : X (X = edit)*
- *create : creation = X : donation (X = donate)*
- *settle : settler = X : peddler (X = peddle)*
- *instruct : instruction = X : self-destruction (X = self-destruct (cf. destroy vs. destruction))*

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## Minor Word Formation Processes IV

➤ Clipping: process of creating new words by shortening parts of a longer word

- *doctor, professional, veterinarian, laboratory, coca cola (coke), advertisement, dormitory, examination, mathematics, gymnasium*
- *bicycle (bike)*
- *refrigerator*

➤ Coinage: process of creating new words without employing any other word part already in existence

- *xerox, kleenex, nylon*

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## How to solve a morphology problem

- compare and contrast forms that are partially similar in meaning and form
- identify the morphemes
- normally, you will find a one-to-one correspondence between a certain phonetic form and a morpheme
- if a single phonetic form has two meanings, then it represents two different morphemes (ex) *hear vs. here*
- sometimes, we find the same meaning is associated with two different phonetic forms, then we should identify the phonetic contexts in which the allomorphs occur (ex) *-ed*

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## Morphology Problem I

### 2.5 Michoacan Aztec

Examine the following words from Michoacan Aztec, a language of Mexico, and answer the questions that follow.

1. [tohah]	my house	6. [təpəh]	your dog
2. [tohahəwə]	my houses	7. [təpəhəwə]	your dogs
3. [tohəh]	your house	8. [tohəhəh]	his cow/field
4. [toh]	his house	9. [tohəwəhəh]	my cow/field
5. [tohəh]	my dog	10. [tohəwəhəh]	your cow/field

a. Fill in the blanks with the corresponding Michoacan morphemes:

_____ house	_____ my
_____ dog	_____ your
_____ cow/field	_____ his
_____ (plural marker)	

b. What is the English translation for the Michoacan word [tohəh]?

c. How would you say 'his cow/field' in Michoacan?

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## Morphology Problem II

### 2.8 German

Isolate the morphemes and word formation processes used to mark the plural in German. Don't worry about trying to describe which plural morpheme goes with which type of word. Just list the morphemes. (Note that the vowels [ɔ] and [ə] are front rounded vowels and that [ʁ] is pronounced [ʁə].)

singular	plural	gliese
1. Bild	Bilder	picture
2. Büro	Büros	office
3. Tisch	Tische	big
4. Lächel	Lächel	smile
5. Uhr	Uhren	clock
6. Rad	Räder	bicycle
7. Wagen	Wagen	vehicle
8. Stoff	Stoffe	text
9. Haus	Häuser	house
10. Lese	Lese	learn
11. Hut	Hüte	hat
12. Hefe	Hefen	yeast
13. Fisch	Fische	fish
14. Dach	Dächer	roof
15. Kind	Kinder	child

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## Morphology Problem III

### 2.1 Swahili

Examine the following data from Swahili, a language spoken in East Africa, and answer the questions that follow.

1. [təwəpəndə]	s/he will die	15. [təwəpəndə]	s/he will beat me
2. [təwəpəndə]	s/he will die you	16. [təwəpəndə]	s/he will beat you
3. [təwəpəndə]	s/he will die brother	17. [təwəpəndə]	s/he will beat brother
4. [təwəpəndə]	s/he will die us	18. [təwəpəndə]	s/he is beating me
5. [təwəpəndə]	s/he will die them	19. [təwəpəndə]	s/he is beating you
6. [təwəpəndə]	I will die you	20. [təwəpəndə]	s/he is beating brother
7. [təwəpəndə]	I will die brother	21. [təwəpəndə]	s/he has beaten you
8. [təwəpəndə]	I will die them	22. [təwəpəndə]	s/he has beaten me
9. [təwəpəndə]	you will die me	23. [təwəpəndə]	s/he has beaten brother
10. [təwəpəndə]	you will die brother	24. [təwəpəndə]	s/he beat me
11. [təwəpəndə]	we will die brother	25. [təwəpəndə]	s/he beat you
12. [təwəpəndə]	they will die brother	26. [təwəpəndə]	s/he beat brother
13. [təwəpəndə]	s/he will destroy you	27. [təwəpəndə]	they have paid us
14. [təwəpəndə]	you are destroying brother	28. [təwəpəndə]	we paid you

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## Morphology Problem IV

### 2.5 Hamarico

Hamarico is a language spoken in the Philippine Islands. Examine the data from this language below and answer the questions which follow.

1. [pəwə]	one	8. [kəwə]	seven	15. [təwəh]	make it one
2. [təwəh]	two	9. [kəwəh]	seven times	16. [təwəh]	make it two
3. [təwəh]	three	10. [kəwəh]	seven times	17. [təwəh]	make it three
4. [pəwəh]	four	11. [kəwəh]	seven times	18. [pəwəh]	make it four
5. [təwəh]	five	12. [kəwəh]	seven times	19. [təwəh]	make it five
6. [təwəh]	six	13. [kəwəh]	seven times	20. [təwəh]	make it six
7. [pəwəh]	seven	14. [kəwəh]	seven times	21. [pəwəh]	make it seven

a. Two affixes are illustrated in these data. Identify each of them, state what kind of affix each one is, and tell what information each one provides.

b. What phonological processes are evidenced in the two morphophonemic changes in the roots?

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## Morphology Problem V

### 2.3 Mongolian

Examine the following Mongolian data. Note that [q] represents a high front rounded vowel, [q] represents a mid front rounded vowel, and [q] represents a vowel with diphthong.

	stem	future imperative
1. qəw	[qəw]	[qəwəw]
2. qəw	[qəw]	[qəwəw]
3. qəw	[qəw]	[qəwəw]
4. qəw	[qəw]	[qəwəw]
5. qəw	[qəw]	[qəwəw]
6. qəw	[qəw]	[qəwəw]
7. qəw	[qəw]	[qəwəw]
8. qəw	[qəw]	[qəwəw]
9. qəw	[qəw]	[qəwəw]
10. qəw	[qəw]	[qəwəw]
11. qəw	[qəw]	[qəwəw]
12. qəw	[qəw]	[qəwəw]
13. qəw	[qəw]	[qəwəw]
14. qəw	[qəw]	[qəwəw]
15. qəw	[qəw]	[qəwəw]
16. qəw	[qəw]	[qəwəw]
17. qəw	[qəw]	[qəwəw]
18. qəw	[qəw]	[qəwəw]
19. qəw	[qəw]	[qəwəw]
20. qəw	[qəw]	[qəwəw]
21. qəw	[qəw]	[qəwəw]
22. qəw	[qəw]	[qəwəw]

a. List all of the allomorphs of the Mongolian future imperative marker.

b. What are the conditions for their appearance?

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