

Chapter 8

Morphological Productivity



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Definition

- Productivity: the extent to which morphemes (affixes) can be used in new formations
 - cf. phonological productivity
 - -th (warmth, depth, etc): no new words since 17th c. (though see coolth: exercises)
 - -ness: easily extended to new words (3000)
- Very productive: English plural -s, verbal -ing, etc. (inflection)
- Very unproductive: English -ter, -en, -let
 - Is productivity a yes/no property? or a scale?
 - If a scale, how can we measure it?
 - Is it the result of other factors, or a primitive?

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-th suffix

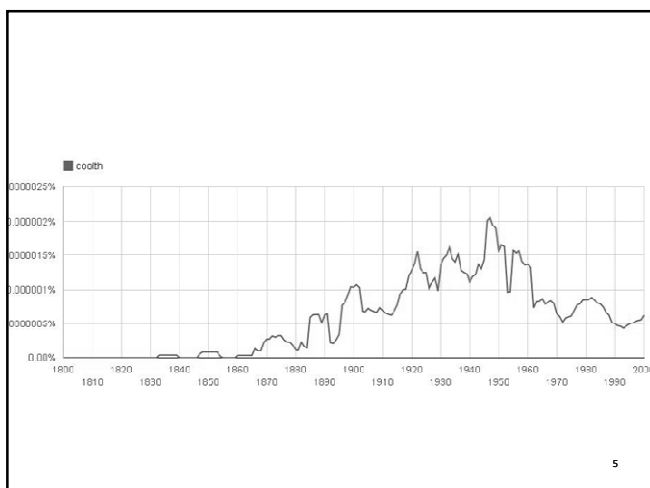
- | | |
|------------|-----------------|
| ■ breadth | filth |
| ■ depth | growth |
| ■ length | height (height) |
| ■ strength | sloth |
| ■ truth | warmth |
| ■ wealth | width |

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Recent research

- Five word pairs in English
- Maximally unproductive suffixation
- Correct? Additional / counterexamples?
 - laugh_V - laught_N
 - aid_V - aid_N
 - cute_{Adj} - cutes_{Adj}
 - prim_V - primp_V
 - clean_{Adj} - cleanse_V

(van de Weijer 2017)



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-cont.

- Problem of definition:
- Suffix like -en (*whiten*, *blacken*):
 - very **unproductive** if considering **all** colours (or all adjectives)
 - or nouns: strength-en, ashen
 - or completely **productive** if considering the group of words **that meet its structural constraints** (CVC_{obs})

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English negatives

- in- ; un- ; non- (inproductive ^{691kr} unproductive ^{3.7m}) (non-productive ^{8.3m}), unfair, *infair, ?non-fair
- human and inhuman, *human and non-human
- most productive (?): non-
 - also the **most transparent** (compositional), simply means not-X
 - cf. syntax: also productive and compositional

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Constraints on productivity

- Phonological constraints

E.g. English:

- -ly not added to adjectives that end in -ly (*friendly-ly, *sisterly-ly)
- -al added to verbs that end in a stressed syllable (arRIval, disMIssal, proPOSal, *Edital, *conSIderal)
 - exception: burial

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Morphological constraints

- Some affixes can only be attached to unsuffixed bases, e.g. English -less (hopeless, lossless, *fairnessless, *salad dressingsless)
- Some affixes can only be attached to bases of a certain class, e.g. English -al attaches to Latinate bases (autumnal, columnar, *springal)
 - adjectives themselves also borrowed from Latin; can new adjectives be formed with -al?

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Morphosyntactic constraints

- Some affixes only attach to words of a certain (morpho-)syntactic class, e.g. English re- only attaches to (certain) verbs (re-read, re-write, *re-president, *re-green)
 - cf. *re-see and re-read: volitional (=semantic constraint)

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Semantic constraints

- **-ee** suffixation in English:
 - examples: addressee, employee, advisee, ... many examples collected on the internet (Barker 1998)
 - referent of newly formed noun must be sentient (animate), usually a person (amputee=*amputated leg)
 - lack of volitional control (invitee)
 - link between noun and verb: a dinee dines, an employee is employed, etc.

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Recent example

Also:

kissee
huggee
squeezee
shavee
laughee
advisee
supervisee
(Muhleisen 2010)



Blocking

- to shovel → a shovel
- to hammer → a hammer
- to sweep → a *sweep
 - blocked by "broom"
 - -er: someone who steals: *stealer (blocked by?)
- to cut → a cutter
 - "knife" is normal word
 - "cutter" is for *specialized* cutting

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-cont.

- also works for irregular forms:
 - the plural *child-s is blocked by "children"
- and for phrases:
 - we can say "this morning, this evening" but not "this night": blocked by "tonight"
- frequency plays a role: a blocking word with high frequency has more "blocking power" than a word with low frequency (see Haspelmath Ch. 12 – next week)

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Salience

- = how "remarkable" a new word is to listeners
 - psycholinguistic investigation, use a scale
 - inversely related to frequency?
- if a new word is formed by an unproductive rule (affix) it is more salient than a word formed by a productive rule (affix)
 - Enronitis (cf. appendicitis)
- Journalism, advertising

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Testing productivity

- Psycholinguistics: *wug* test (next slide)
 - can an affix be attached to loanwords, nonsense words?
- Corpus research [Internet]
 - are there loanwords or new words to which an affix is attached?
- Neuro-imaging
 - are certain areas of the brain activated when certain morphological processes are performed (e.g. regular past vs. irregular past)?
- (dis)advantages of these approaches?

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This is a Wug.



Now there is another one.

There are two of them.

There are two ____.

Photo courtesy of Jean Berko Gleason

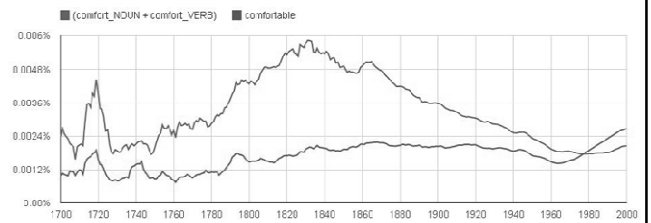
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Morphological processing

- Two ways of accessing a **morphologically complex form**:
 - as whole words ("direct route")
 - by decomposition ("decompositional route")
- Crucial factor: frequency. HF words will be stored and accessed directly, LF words will be decomposed
 - in some words, the derived form is more frequent than the base (e.g. *comfortable*)

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comfort, comfortable



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Conclusion

- Productivity
 - definition?
 - how to measure?
- Constraints on productivity
 - phonological
 - morphosyntactic
 - semantic
- Relation with psycholinguistics

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Homework

- Read chapter 8 carefully; note down any questions
- Prepare exercises **1-12** for class
 - exercise 13: essay topic, also as intro to psycholinguistics
- Think of a good **new** word!
- T h a n k y o u !

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