Today's topics:

- Types of sound change
- Expressing sound changes
- Change as misperception

Discussion: Group work from last time

Stronger	Weaker
p	b
p	f
f	h
x	h
b	w
v	w
a	ə
d	l
s	r
k	ʔ

- Take the list of "stronger" and "weaker" sounds on p 24 of IHL, and for each pair, identify the phonetic properties by which the sounds differ.
  - Are all these sound pairs related in the same general way?
  - Are there subpatterns?

Sonority

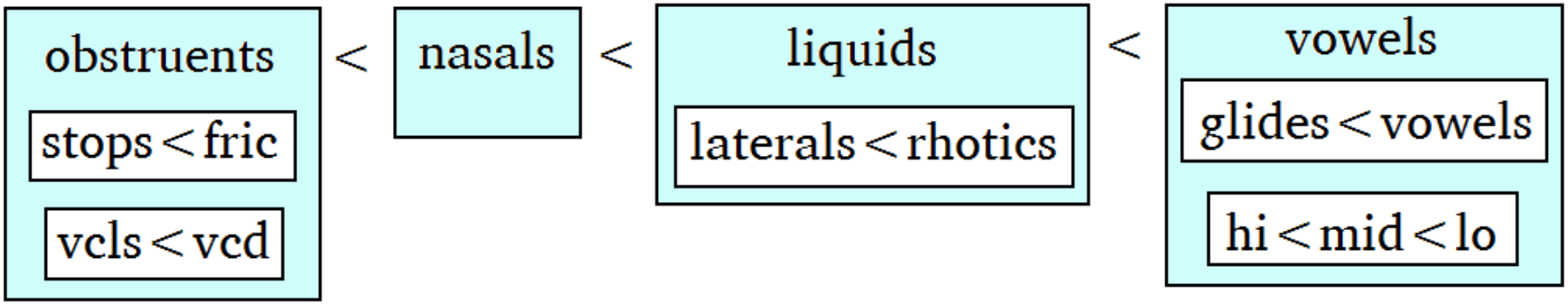
- Speech sounds form a scale from ‘most consonant-like’ to ‘most vowel-like’

  → This scale is called the **sonority scale**

- The sonority scale predicts many aspects of language behavior cross-linguistically
  - Syllable structure
  - Stress
  - What gets copied in reduplication
  - Patterns in child phonology
  - …

Sonority

- Here is the sonority scale that we will use:



- Basic scale: O < N < L < V
- Further subdivisions often made, as indicated
- Note obstruents: two options for subdividing
  - /t/</d/</s/</z/ [this is what IHL states (p 24)]
  - /t/</s/</d/</z/

Types of sound change: Lenition and fortition

- Two terms often encountered in discussions of sound change
  - **lenition** = ‘weakening’
  - **fortition** = ‘strengthening’

- What do these terms actually mean?
  → Quite a vexed question!
  - Different linguists use them in different ways, or use them without clearly defining

Lenition and fortition

- One definition (H.H. Hock): A sound change is **lenition** if it is an intermediate stage on the way to total loss (and **fortition** is the opposite)

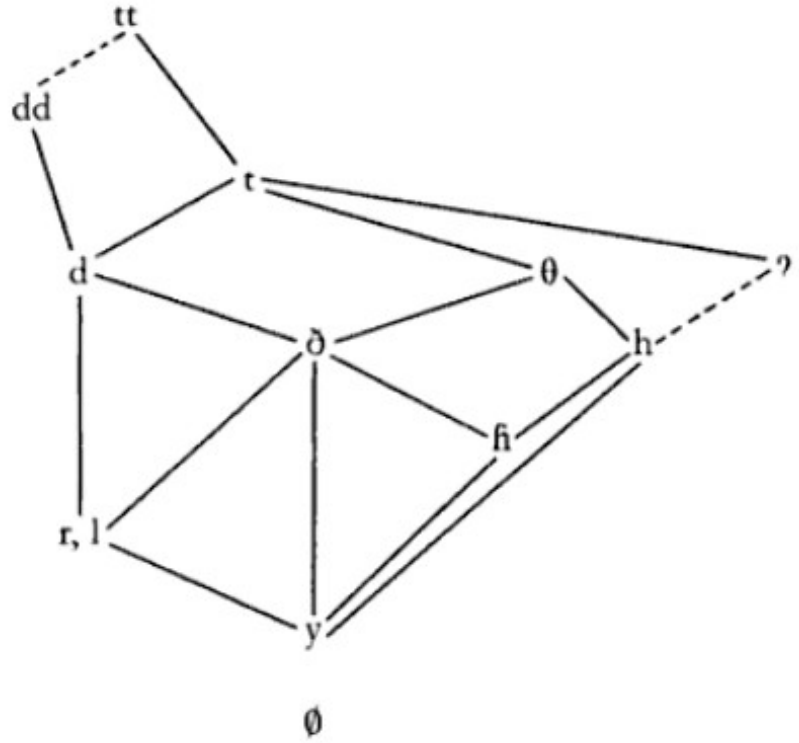


Chart 5.1. The weakening hierarchy

(graphic from Hock 1991)

Lenition and fortition

- Lenition is a common type of sound change
  - Fortition also occurs, but is less common

- IHL relates lenition to sonority, with qualifiers
  - lenition ≈ increase in sonority
  - fortition ≈ decrease in sonority

- How many of the 'weakening' changes listed on p 24 really show an increase in sonority?
  - What other patterns can we identify?

Lenition and fortition

A more careful look at what gets called ‘lenition’

- **Sonority**
  - *Increase* in sonority for *consonants*
  - *Decrease* in sonority for *vowels*

  → Sonority change that makes the sound *less prototypical* for its class?

- **Reduced phonological complexity**
  - Ex: Loss of place of articulation (> glottal)

Is **final devoicing** lenition or fortition?
→ Linguists debate this point. Why?

A special case of lenition: rhotacism

- The term **rhotacism** refers to a process in which something becomes a rhotic
  - Usually the affected sounds are [s,z]
  - Which subtype of lenition are we dealing with here?

Overview: Types of sound change

- Terms to be familiar with — be able to apply them to language examples

  - lenition, fortition, rhotacism [from today's class]

  - deletion = sound loss (all positions)
  - cluster reduction
  - haplology
  - epenthesis = sound addition (all positions)
  - metathesis
  - fusion
  - fission
  - vowel breaking
  - assimilation
  - dissimilation

Writing sound change rules

- Use the **arrow** with no stem, '>' , to indicate a diachronic sound change ('→' = synchronic rule)
- Whenever we are talking about more than one speech sound, we need to state the class of sounds in terms of **properties**
  - The sound class affected by a change
  - The environment where the change occurs (unless the sound change is **unconditioned**)
- **Always** describe a **sound change** in terms of the **properties** that are altered

Writing sound change rules

- More conventions:
  - ( ) means ‘optional’ (usually in environment)
  - C, V are useful abbreviations
  - #
  - Curly brackets { } ? If you must...
  - ‘Zero’ (insertion, deletion) should really be indicated with the empty set sign ‘Ø’, not the vowel symbol ‘ø’

- If there are multiple sound changes, consider whether they need to be **ordered**

Examples to try

- See handout for cases of sound change to practice working with
  - Practice identifying the **type(s) of sound change** (see list on previous slide)
  - Also, practice describing each change in terms of the **phonetic properties** that are involved
  - Consider the Japanese example: Does the **order** of the sound changes matter?

Why are some types of change common?

- One extremely common force in sound change: **Misperception** (could also be called **phonological reanalysis**)
  - Articulatory variability
  - Acoustic ambiguity
- Either way, the listener arrives at a different phonological representation than the speaker had intended
- How many of the common sound-change types covered in IHL Ch 2 can be viewed this way?

Examples: Misperception/reanalysis

- One common subtype of lenition:
  stop > *fricative*
  - Can we form a hypothesis about this type of sound change based on **articulatory variability**?
  - What would the **phonological reanalysis** consist of?

Examples: Misperception/reanalysis

- Example from IHL, Ch 2

  French: *ɔn > ɔ̃ *bɔn > bɔ̃ 'good'

  - **Articulatory variability**: Velum may lower 'early' for the nasal
  - **Acoustic ambiguity**: Where is the nasal property localized?

  - What would the **phonological reanalysis** consist of in this case?

Hypothesis / research question

- If one type of diachronic sound change is more common than another, similar change...

  can we show that the common one is more likely to arise as a result of misperception or articulatory variability **in the laboratory**?

→ This is currently a very hot topic in linguistic theory