


Segmentation - outline

- What is the issue?
- What are the cues we use to solve it?
- What is the evidence for those proposed cues?

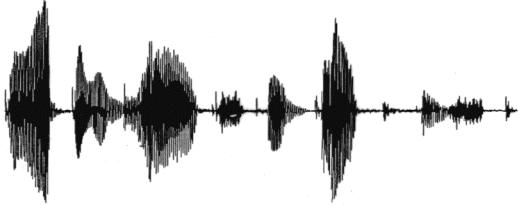
Segmentation

- THEREDONATEAKETTLEOFTENCHIPS
- It's not easy to wreck a nice beach.

Bill gave Tess two pills



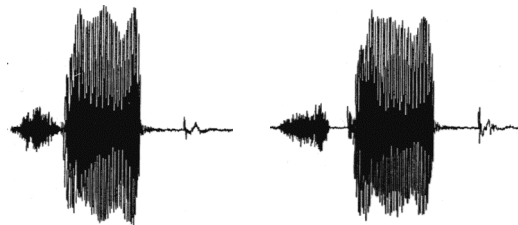
Apple jacks for breakfast



I owe you a yo-yo



sop/stop



Summary

- There aren't reliable boundaries between words.
- No breaks means it is hard to segment.

Sample mistakes

- It's a doggy-dog world.
- Jose can you see by the donzerly light.
- Pullet Surprise [Pullitzer Prize]
- notor republic [notary public]
- Bohemian Rap City [Rhapsody]
- Pencil Vanea
- Donkey Hote
- I led the pigeons to the flag.

Some from: Richard Lederer, *Anguished English and Student Bloopers*

Some from college student papers (from colleagues)

- "She did not have any clear goals but appeared lack-of-days-ago regarding her future plans"
- The child had an "edible complex"

Mistakes from kids

- Daddy, when you go tinkle you're an eight, and when I go tinkle I'm an eight, right?
- The ants are my friends, they're blowin' in the wind.
- I know I sound like Larry, but who's Gitis?
- I am being have!
- I don't want to go to your ami!

Source: AM Peters (1983) *The units of language acquisition*

How do we determine word boundaries?

- Knowledge of words in the language
Adogneverplayswhenheisalone
but not
pessinigdynehrajekdyzjesàm

But this is not sufficient

- two can -- toucan
- can't elope -- cantaloupe
- ray on -- rayon
- two lips -- tulips
- great eye -- grey tie
- see leaves -- seal eves
- note rail -- no trail
- night rate -- nitrate

Jokes...

- Be Alert!
- This country needs more lerts.

- When is a door not a door?
- When its ajar.

- Why won't you starve in the desert?
- Because of the sand which is there!

Stress

- Words in English generally have stress on their first syllables.
- Cutler & Norris proposed that people use this to predict word boundaries.

Data

- Children's syllable omissions
- Adult word detection
- Speech perception errors
 - Adding before a strong syllable: Analogy --> An allergy
 - Deleting before a weak syllable: My gorge is --> My gorgeous
 - Deleting before a strong syllable: Is he really? -> Isreali
 - Adding before a weak syllable: Effective --> Effect of

Actual errors

- I can't fit any more on --> moron
- How big is it? --> How bigoted
- Into opposing camps --> Into a posing camp
- She'll officially --> Sheila Fishley

Other cues

- Allophonic distinctions
- Phonotactic probabilities
- Constraints on what can be a word

- But nearly all of these require prior learning.
 - So how does an infant segment words?
 - Are there disorders that affect this?
