Sentence processing

- How do you parse a sentence in real time?

- The principle of minimal attachment:

- For each new phrase, attach it to the existing tree in the simplest way possible.

Garden path sentences

- Garden path sentences are sentences in which the most natural parse of the sentence makes later words seem ungrammatical.

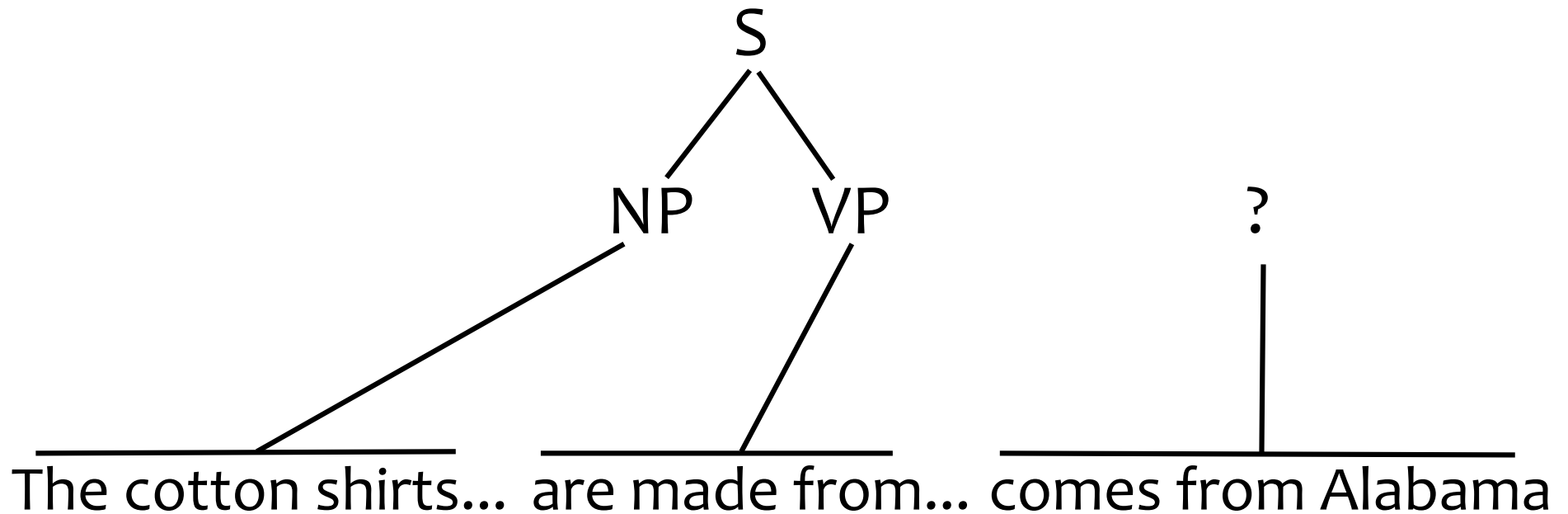   *The boy read the book fell asleep immediately.*

    The cotton shirts are made from comes from Alabama

    She put the turkey on the counter into the oven

- Garden path sentences can be very revealing about progressive parsing processes

Minimal attachment in a garden-path sentence

The cotton shirts are made from comes from Alabama

Phonology

- Phonology is about the sounds of language

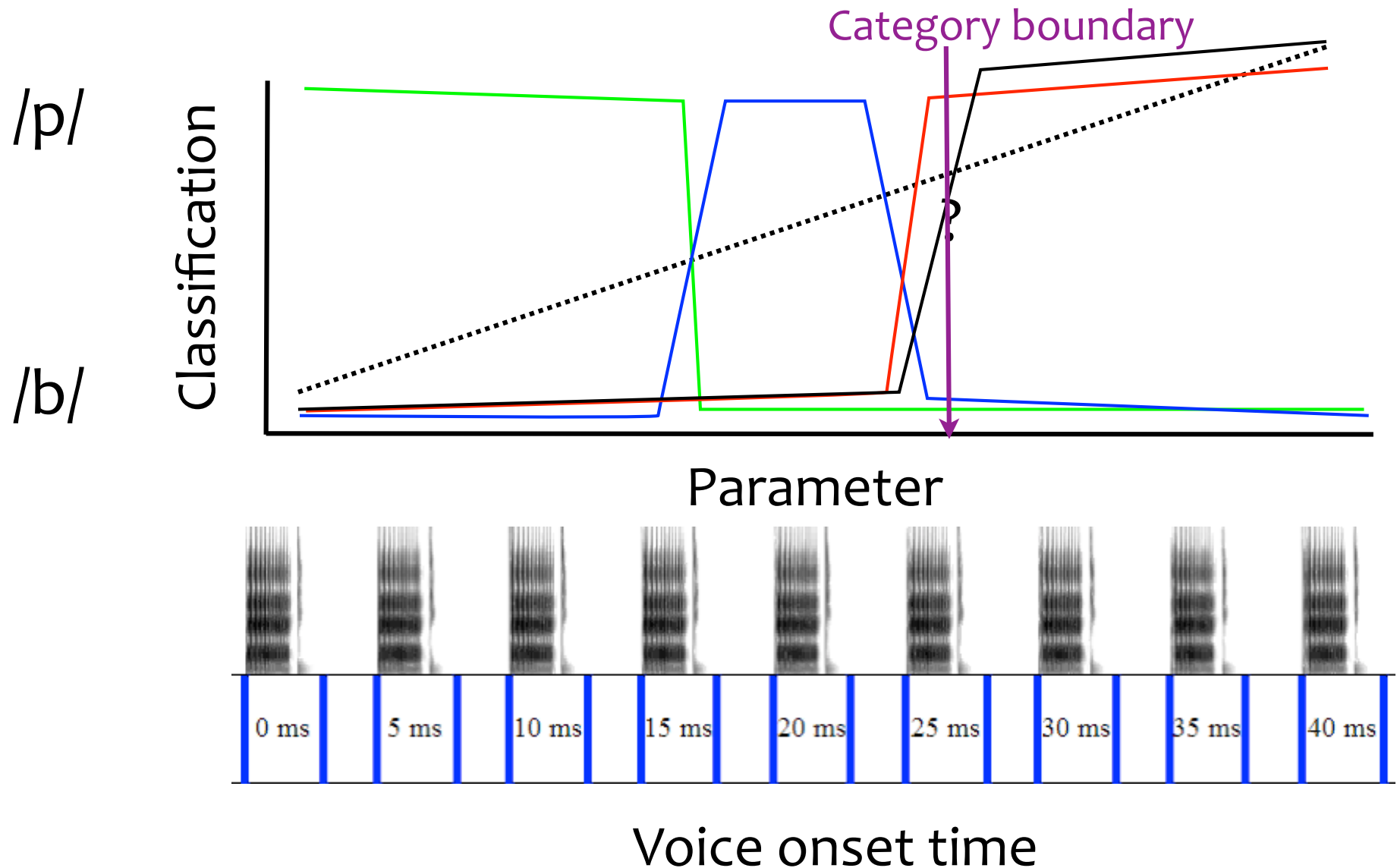- Individual sound classes are called phonemes.

  Examples:

  "Tooth" = /t/ /oo/ /th/

  "Phoneme" = /f/ /o/ /n/ /ee/ /m/

Phonological parameters

- Phoneme classes are distinguished by a number of parameters determining how they are physically articulated, including

- Manner of articulation: Stop (p, b, t, d…) vs fricative (f, s, th, …) vs various other types

- Place of articulation: bilabial (p, b) vs labiodental (f, v) vs various other types

- Voicing characteristics

   - Voiced/voiceless: f/v, s/z, th/th

   - Voice onset time (VOT)

   = when the voicing starts relative to the onset of the articulation

Categorical perception

Variation among languages

- Different languages use different classes, involving different thresholds along the same group of parameters

- After the critical period for learning, speakers are sensitive to distinctions between categories, but "deaf" to distinctions within their native categories