**THEORY** (Ohala 1981)

Innovative pronunciation by **hypo-correction**.

- Correction = Compensation for coarticulation (C for C).
- Hypo-correction = Failure to use C for C.
- Listener misperceives speaker intent.

**PROPOSAL**

'Seeming' hypo-correction due to variation in C for C and pronunciation category boundary.

- Speaker employs heavy coarticulation.
- Listener employs small C for C and/or has conservative boundary.
- The listener misperceives speaker intent.

**BASES OF THE PROPOSAL**

- Variation in C for C:
  - by L1 group (Beddor & Krakow 1999) and
  - by age group (Harrington et al. 2008).
- Variation in phoneme category boundary by age (Harrington et al. 2008).
- Linguistic knowledge guides perception.

**HYPOTHESES & QUESTION**

**H1:** Production and perception correlate.
**H2:** Phoneme category boundary is stable.

**Q1:** How subject’s grammar influences the learning of a new word form?

1. The term ‘phoneme’ is used not in a sense of a unit of lexical contrast, but as a distinct pronunciation category.

**METHODS**

- **Subjects:** Native speakers of American English (15 females & 15 males, 30 in total).
- **Stimuli:** 10-step /bip/-/to/-/bip/ & /dit/-/to/-/dut/ continua (in female voice & male voice).

**EXPERIMENTS**

**Tasks:**
1. **Production:** heed, hid, head, had, HUD, hood, who’d, bood, & dude.
2. **Perception:** Two-alternative forced choice between /CiC/ and /CuC/.
3. **Vowel Repetition:** Subjects hear a [CVC] syllable, then repeat only the [V].

**RESULTS**

- Evidence for H1 was inconclusive: Correlation was significant when tested on the mean of the shifts (from the male and the female stimuli), but not significant when tested separately on each of the two sets of stimuli.
- H2 was supported. The subjects had systematic category boundaries on the two sets of stimuli.

- What these results suggest?
  - Speech perception is guided by experience-based knowledge on distribution of sounds and sound sequences.
  - Coarticulatory perturbation may become exaggerated, or phonologized (Hyman 1976), through categorical perception.

**Discussion**

- Vowel repetition results exhibited evidence for categorical perception and C for C.
- Regression model of repeated vowel’s F2 improved when individual’s category boundary and F2 in [i] and [u] were added.

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