Where Lexical Distribution Meets Phonetic Realization

Closure Voicing of Voiced Obstruent Geminates in Two Amakusa Japanese dialects

Summary
Following Kawahara’s description on acoustic-phonetic realization of voiced geminates, we report on phonological distribution and phonetic realization of voiced geminates in Amakusa Japanese, a dialect spoken in south-west part of Japan. We demonstrate that the dialect has voiced geminates in Yamato and SJ items and (almost all) closure intervals of voiced geminates in Amakusa Japanese are fully-voiced. Our results will support claims by Kawahara.

① Avoidance of Voiced Geminates

Voiced Geminates [VG] in Japanese Lexicon
- Yamato: [–VG]? (emphatic form: sugoi → suggoi)
- Sino-Japanese: [–VG]
- Foreign: [+VG] but devoiced

Phonological Devoicing
- baggu ~ baku ‘bag’
- beddo ~ betto ‘bed’

② Half-Devoicing in VG

Half-Devoicing in VG (Kawahara 2006)
- Voiced geminates are half-devoiced in JP.
- Acoustic half-devoicing affects perception.

③ Voiced Geminates in Dialects

Geographical distribution of VG (Takayama 2012)
● = [+VG]

④ The issue

Amakusa Japanese
- A dialect spoken in South-west Kyushu
- reported to have VGs both in Yamato and Sino-Japanese lexicon.
- No reports of acoustic-phonetic description

Question
- Are VGs in [+VG] dialects (Amakusa) also phonetically half-devoiced?

⑤ Major Findings

Lexical distribution
- Hondo: both Yamato and SJ have VG
- Ushibuka: only SJ has VG

Phonetic realization
- Almost all VGs are fully-voiced in both dialects.
  e.g. kuddoo ‘will come’

⑥ Discussion

Lexical dist. correlates with phonetics
- Amakusa: Lexicon [+VG] : Phonetics [voiced]
- Supports Kawahara’s claim

Prediction
- Amakusa Japanese does NOT have phonological devoicing.
- Speakers of AJ has different perception on VG (sensitive to voicing in closure?).