A PRELIMINARY ACOUSTIC STUDY OF DENTAL & ALVEOLAR NASALS

PALATALIZATION & VELARIZATION IN MALAYALAM NASALS

• Malayalam (M) is rich in place contrasts (Namboodiri 1997).
• How can one distinguish so many places?
  • All Cs have place cues in coronal transitions.
  • Some Cs have additional cues (L&S 1999).
  • Palatals and velars have virtually nothing else.

So how do speakers manage 7 nasals? Speakers produce 7 diff. nasal places (L&S 1999).
Phonological distribution helps:
• Fewer contrasts initially and finally.
• Full inventory only seen in intervocalic geminates.
• Having Vs on both sides provides transitions.
Length arguably contributes for weak place cues:

• Are liquids and liquids with nasals perceived as different?
• Is velarization or palatalization achieved when flanking liquids are intervocalic?

Summary:
• How can one distinguish so many places?
• Palatalization and other “clear” articulations.
• Review existing literature on liquids r r l l.
• Collect and analyze new data on nasals n l.

Acoustic findings (L&S 1999):
• Phonetics and phonological investigation of Malayalam (Namboodiri W. 1997).
• Malayalam nasal assimilation, place assimilation. In Bruce Hayes, Robert Kirchner and Donca Steriade (eds.), Phonological implementation of geminates in Dravidian lgs. (2010).
• Malayalam腭化鼻音的特征。Talk presented at the 17th meeting of the ASL.
• Malayalam palatal nasals. Talk presented at the 17th meeting of the ASA.

Method:
• One speaker.
• Reed undergraduate.
• Male, from Thrissur, Kerala.

Results:
• Back V front before
  • F2 higher in o a before.
  • No consistent effect on i.
  • Suggests palatalization of n or velarization of n.

Back V front after
  • F2 higher in u a after.
  • Possible raising on i after.
  • Suggests palatalization of n or velarization of n.

PREVIOUS STUDIES OF LIQUIDS

Namboodiripad, W., & T. Kuman. 1994. Lexical phonology of the consonant system in Malayalam ([1996]).
S R&K 7.
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