

# Phonetic and Phonological Research in Vietnam and Cambodia

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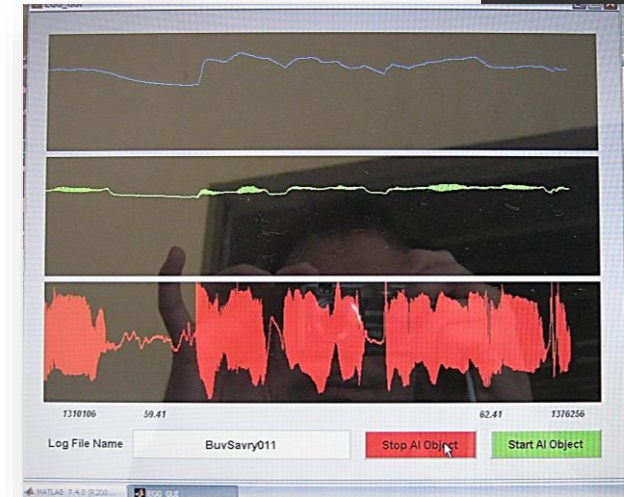
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How is new technology transforming linguistic fieldwork in SEA?

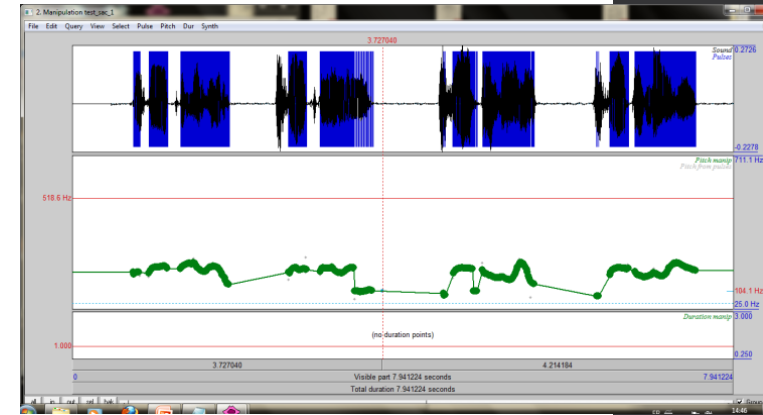
# Technological developments

- Availability of electricity
- High-quality portable recording equipment
- Widespread availability of computers
- Online media, internet
  - Corpora
  - Minority languages online
  - Skype, chat



# New skills are needed

- Speech processing and acoustic analysis
- Programming and scripting to automate time-consuming data analysis
  - Praat
  - Presentation, Psyscope, DMDX
  - Matlab, Python
- Statistical analysis
  - R, SPSS, Stata



```
File Edit Format View Help
startc2 = startc2+0.00001
Add point... startc2 ratioc2
Add point... endc2 ratioc2

#calculate time ratio for s2 (new dur: 300 msec)
ratios2 = 0.3/lengths2

starts2 = starts2+0.00001
Add point... starts2 ratios2

select Manipulation 'tgnames'
plus DurationTier untitled
Replace duration tier

select Manipulation 'tgnames'
Extract pitch tier

#In this loop, each sound file is
#resynthesized with several different pitch curves.

#calculate f0 transition zone (at the end of consonants)
target1 = endc1 - 0.02
target2 = endc2 - 0.02

for toneonset from 150 to 250
  select PitchTier untitled
  Remove points between... startc2 target1
  Add point... endc1 toneonset

  for toneoffset from 150 to 250
    select PitchTier untitled
    Remove points between... startc2 target2
    Add point... startc2 toneoffset
    Add point... target2 toneoffset

    select Manipulation 'tgnames'
    plus PitchTier untitled
    Replace pitch tier
    select Manipulation 'tgnames'
    Get resynthesis (PSOLA)
    Rename... 'tgnames'toneonset'-toneoffset'
    write to WAV file... 'source'\tgnames'toneonset'-toneoffset'.wav
    select Sound 'tgnames'toneonset'-toneoffset'
    Remove

    toneoffset = toneoffset + 24
```

# Collaboration and teamwork

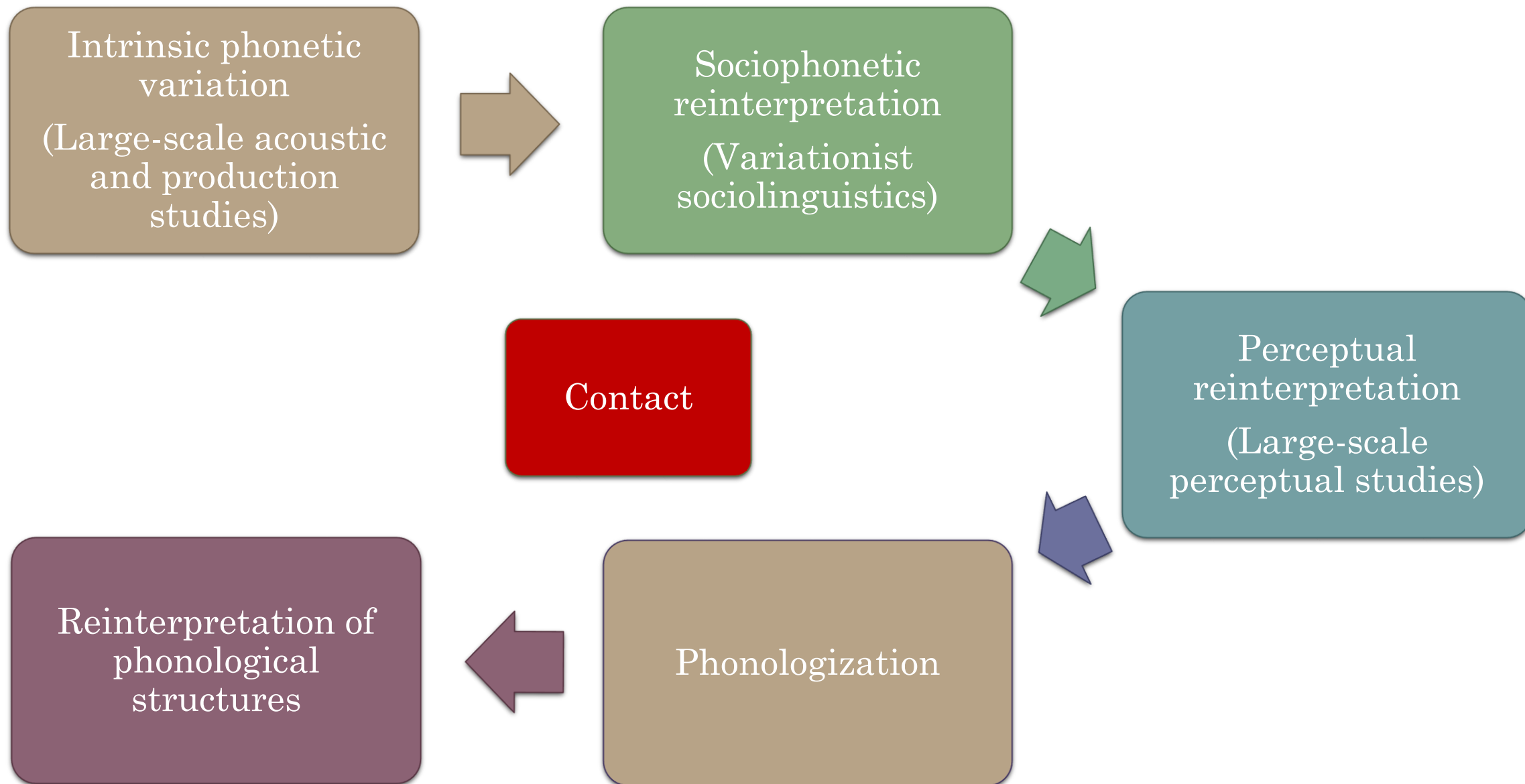
- Why is collaboration necessary for foreign researchers?
  - Large-scale data collection in the field requires assistants
  - Corpus annotation requires coders
  - Native speaker input is useful, even for multilingual researchers
- Why is it good for local researchers?
  - Training of local students (= future professors)
  - Technology transfer
- Challenges
  - Networks, political issues, hierarchies
  - Unrealistic expectations about financial contribution from foreign partners
  - Limited language skills of some foreign researchers

Research issues that  
must/can/should be  
addressed

# The usual suspects

- The questions are not necessarily new
  - Tonogenesis
  - Monosyllabization
  - Contact and change
  - ...
- New approaches allow us to dig much deeper
  - Large-scale studies of phonetic variation
  - Sociophonetic studies of sound change
  - Perception studies

# Example: Phonologization





How will the sociocultural, political, and economic changes resulting from the ASEAN integration impact the linguistic diversity and linguistic fieldwork in SEA?

# ASEAN integration?

- No real ASEAN integration
  - ...or at least almost no effect on daily life or the linguistic landscape in Vietnam and Cambodia
- No official Southeast Asian Language at SEALS
  - Choosing one could be controversial...
  - When SEALS is in Southeast Asia, there could be one session in the national language

# Back to ASEAN: Why isn't there more academic collaboration between ASEAN countries?

- More collaboration with Western countries than between ASEAN researchers
- Possible answers
  - Very different academic traditions
  - Language issues
  - Funding (or expected funding)
  - Touchy political issues between neighboring countries