Liniguistics as Natural Science

Comments to:
Kluender
Yoshida & Kitagawa
A Metaphor…

• In a science lab…

• We need more fine-grained data collection methods.
How do we do?

1. Train your finger!
   - with some success, but…
   - extremely heavy burden for subjects
   - doubts on credibility of judgments

2. Use technology
   - non-invasive brain imaging (ERP, MEG, fMRI, etc…)
   - doesn’t involve subjects’ subjective decision
   - helps get more exact measurements
How do we do?

3. Use statistics
   - less burden for subjects
   - credibility of data
   - can find relevant factors systematically (data mining)
More to be done

• Better control of stimuli
  – factoring out unwanted effects
    • prosodic effects
    • pragmatic effects
    • cognitive effects
  – examining phenomena from various aspects
    • Phonetics: F0, duration, intensity, etc.
    • Syntax: statistics, corpus, etc.
    • Semantics: cross-linguistic variety, …
More to be considered

- Interface issues
  - Modularity: how are they connected/related one another?
    - Theoretically (PF–Syntax–LF–Pragmatics–IS)
    - Physically (Brain activity–Linguistic theory)
- Pure “grammaticality”?  
  - When all the ‘side-effects’ (prosodic, cognitive, pragmatic, etc.) are excluded, what’s going to remain?  
  - Or does anything remain at all?
More to be considered

• What are you going to present at the next WPSI?
Thank You!