BBI3215
Introduction To Psycholinguistics

Dr. Yap Ngee Thai
A204, Block A, FBMK
yap@fbmk.upm.edu.my
603-89468734

What is psycholinguistics?

- The psychology of language
- Psycholinguistics is the field of study concerned with the psychological process that are involved when we acquire, and use language.

3 major concerns in psycholinguistics

I. Comprehension:
   - how we understand spoken language (listening)
   - how we understand written language (reading)

II. Speech production
   - how we produce spoken language (speaking)
   - how we produce written language (writing)

III. Acquisition: how we learn language
   - how children acquire a first language (developmental psycholinguistics)
   - how children acquire subsequent languages (second and foreign language acquisition)

Neurolinguistics

- A new area of interest in psycholinguistics
- Neurological bases of human language functioning (language and the brain)
  - Where do language formulation and understanding reside in the brain?
  - What anatomical structures underlie normal development and use of the full range of language skills?

Online Links

- Neuroscience for kids
  http://faculty.washington.edu/chudler/intro.html

(OK, We are big kids 😊. So it's ok to go to a site meant for kids to learn some stuff too.)

What do we get from neurolinguistics?

- General brain structure and function

  - Language areas in the brain:
    - Frontal lobe: processing of sensation, speech, and motor control of writing
    - Temporal lobe (upper back) to parietal lobe
    - Wernicke's area (comprehension of speech)
    - Frontal lobe (lower part)
    - Broca's area (encoding of speech)
    - Occipital lobe (visual processing)

- Language Disorders
  - Broca's aphasia and Wernicke's aphasia
Pathways in language processing

- Speech production:
  - Wernicke's area → Broca's area

- Reading aloud:
  - Visual cortex → Wernicke's area → Broca's area

- Speech comprehension:
  - Auditory cortex → Wernicke's area

More details

- Chapter 12 of your textbook
- But you need to focus on this in the second half of the semester
- SEE study plan for suggestions on how to focus on this course

Your Study Plan

- Week 1–7:
  - Chapters 1, 2, 3, 4, 5, 6, 7, 8
  - First and Second Language Acquisition
  - Homework 1: due 10 February 2010

- Week 8–14:
  - Chapters 9, 10, 11, 12
  - Language, thought and culture
  - Speech processing and production
  - Language and the brain
  - Homework 2: due 31 March 2010

A word of caution

- Organisation of your textbook
  - Part 1: First language acquisition
  - Part 2: Second language acquisition
  - Part 3: Language, mind and brain

Questions:
- a) Does this organisation accurately reflect the 3 major concerns in psycholinguistics?
- b) What does the above organisation imply?
- c) Does this implication reflect the focus of concerns in psycholinguistics?
Methods: How do we do linguistics?

- Phonetics and phonology:
  - Observation, recording and transcribing to describe a specific variety of speech (adult vs child production / native vs non-native speech)
  - Finding minimal pairs and describing distribution of speech sounds → phonemic status of sounds
- Syntax and morphology:
  - Theorizing to identify grammar rules:
    - Phrase Structure Rules
    - Transformation Rules

Example

- How do we form yes/no questions?
- Analysing statements and questions:
  - John is at the concert.
  - Is John at the concert?
  - They are quite thirsty.
  - Are they quite thirsty.

Q: What generalizations can you make about how yes/no questions are formed in English? (Review)

How do we do psycholinguistics?

- Recall the 3 major concerns
- Can we just ask ourselves to find the answer?
  - How do we understand the meaning of a word?
  - How do we find the words when we want to talk about something?
  - Are some words/phrases easier or harder for people to understand?

3 major concerns in psycholinguistics

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Metalinguistic Capacity

- Metalinguistics = language about language
- Our metalinguistics ability is limited.
- Our knowledge of language is implicit and not easily available for self-examination
- Once we have acquired language, we use and process language rather effortlessly.
- But we cannot describe how we do it. Even when we think we know, we may not be correct.

How do we do psycholinguistics?

- Descriptive Studies
  - First language speech production
    - Prelinguistic stages
    - Early stages of speech: naming, holophrastic, telegraphic, morphemic
    - Later speech stages: rule formation
  - First language speech comprehension
    - (Can this be described?)
    - e.g. If child repeats after you, does he/she understand what you are saying?
How do we do psycholinguistics?

- Experimental methods:
  - How accurate?
  - How fast?

- What we test/experiment with and how we test it is guided by what we believe is happening in the brain.
  - Our understanding/theory on mental representations
  - Our understanding/theory on lexical access
  - Our understanding/theory on how we built bigger structures from smaller units (sentence processing)

Think about how you can find answers to these questions

- How do we know we have two categories of bilabial stops? Hint: *pin* vs *bin*

- How do we know children have acquired the plural morpheme? E.g., *pen* vs *pens*

- How do we know children understand reflexive pronouns? passive and active verbs?

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Answer

a) Word/picture identification task
b) The wug test
c) Picture identification task

Find descriptions of these task in journals.