

# Human Communication

## Lecture 10

# Language Acquisition

<http://www.youtube.com/watch?v=PYXK2-d8gfc&feature=related>

# Chomsky

- The mechanism of language acquisition is based on innate processes
- According to Chomsky:

“All children share the same internal constraints which characterize narrowly the grammar they are going to construct.”
- Based on *Universal Grammar*

# More Chomsky

- In his theory he sees it as evident that children who live in the same linguistic community with broadly similar linguistic experiences arrive at comparable grammars

# Universal Grammar

- Chomsky et al. believe that there are principles of grammar which are shared by all languages
- These principles are innate to all humans
  - the human brain contains a limited set of rules for organising language
  - ***nativism***
- Rule: If a language has a feature X, it will also have the feature Y.

# Limitations of Nativism

- Not empirical - All theoretical
  - Main interest in grammar - never studied children

Theory relies on children exposed to language but takes no account of children interacting with their carers, reasons why child wants to speak, or any functions of language itself

We actually need to study the acquisition of *communication* ...

# Behaviourism

- B.F. Skinner (radical behaviourist): verbal behaviourism
  - behavior determined by external stimuli
  - reinforcement

Definition: “Behaviors can be measured, trained, and changed. Only observable behaviors should be studied, as cognition and mood are too subjective. According to behaviorist theory, our responses to environmental stimuli shapes our behaviors.”

# Reinforcement in language acquisition

- Positive reinforcement or positive feedback
- Used to encourage desirable behaviour. The subject receives encouraging and favourable communication from another person



# Limitations of Reinforcement I

- Children learn by positive reinforcement when right and negative reinforcement when wrong?

Child: Nobody don't like me.

Mother: No, say "Nobody likes me."

Child: Nobody don't like me.

(dialogue repeated eight times)

Mother: Now, listen carefully, say "Nobody likes me"

Child: Oh, nobody don't like me.

# Limitations of Reinforcement 2

- Children are often unable to repeat what an adult says, especially if the adult utterance contains a structure the child hasn't started to use yet
- Vast majority of children go through the same stages of language acquisition, **developmental milestones**. These are largely unaffected by the treatment the child receives

# Criticisms: Nativism and Behaviourism

- Both approaches have their flaws
- Nativism is too difficult to make refutable; its system of rules is difficult to subject to evidence
- Nativism doesn't really engage with semantics
- Behaviourism has problems accounting for the speed of language acquisition: the “poverty of the stimulus” argument
- (But these critiques often address naïve versions of the theories)

# Cognitive Linguistics I

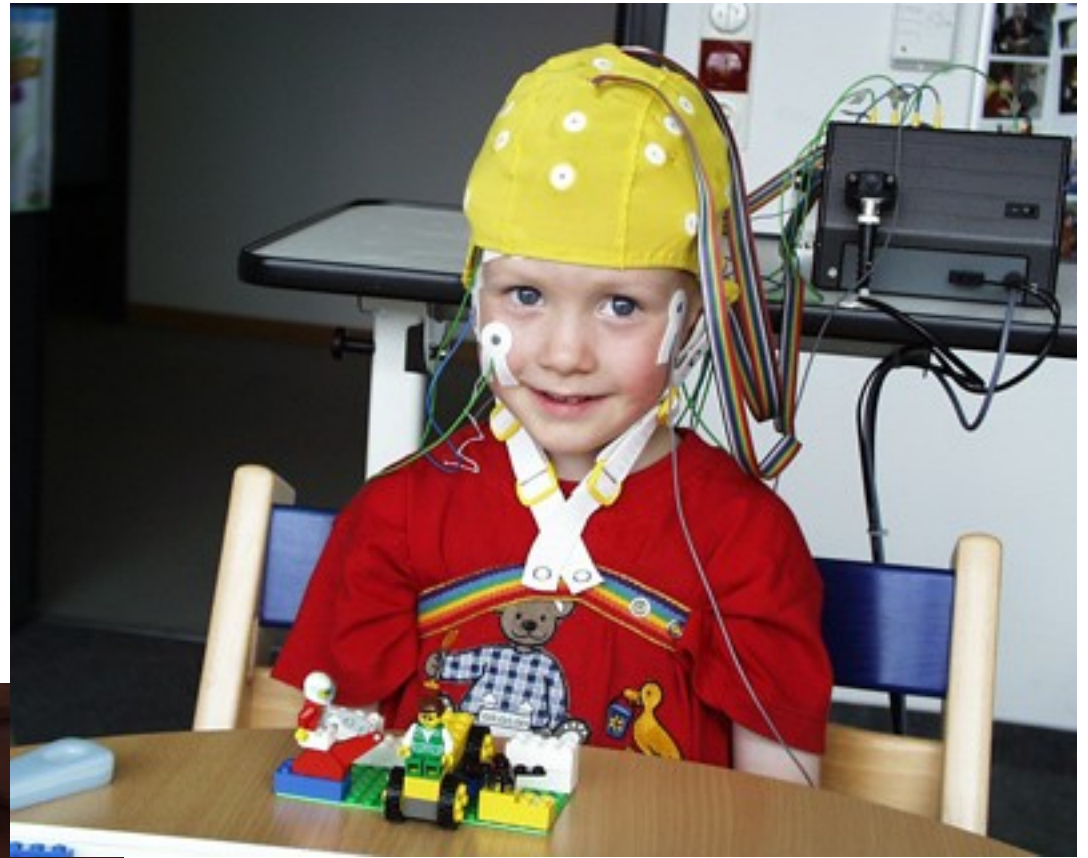
- Cognitive Linguistics views language as based in mental faculties that have evolved over time
- Cognitive linguists deny that the mind has any module for language acquisition that is unique and autonomous (Chomsky)
- **BUT** not against the idea that human linguistics has innate constraints: they deny only that it is separate from the rest of cognition

# Cognitive Linguistics 2

- Cognitive Linguistics understands grammar in terms of conceptualisation
- Knowledge of language arises out of language use
- Language is both embodied and situated in specific environment → language and cognition mutually influence each other, and are both embedded in the experience and environment of its users

# Research in Cognitive Linguistics

- e.g. Michael Tomasello
- Researching children's cognitive behaviour in language: a “social-pragmatic” approach
- Combines language and gesture → Human Communication



# Research in Cognitive Linguistics 2

- e.g. Chouinard and Clark (*J. Child Lang.*, 2003)
- *Negative Evidence* **is** important in learning ...
- (contrary to common view noted a few slides ago)
- Helps child acquire concepts of conventionally correct ways to express things
- Child recognises *reformulation* of utterances with the *same meaning*
- Depends on child engaging in cooperative dialogue and respecting *conversational conventions* (which we'll discuss in later lectures)



# Milestones

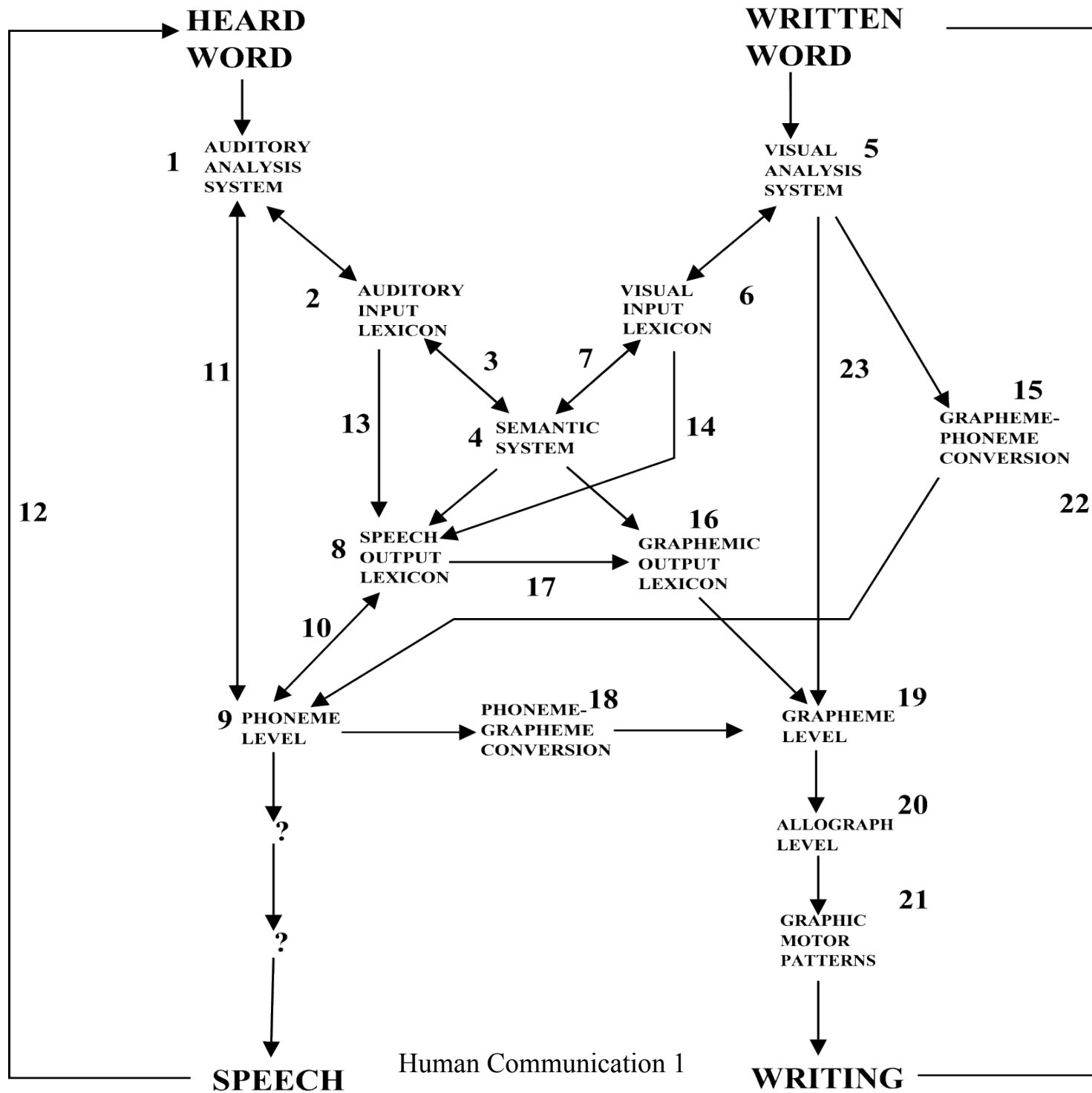
- Milestones in language acquisition focus on Speech and Hearing and Gesture
- For example: During the first year a baby should express itself by crying and sound (from gurgling sound to “dada, mama” at end of this year); it should react to sound and recognise short words (“cup”) at the end of this year; the baby should smile at you and start using simple gestures (like pointing at carers)

# Why Gesture?

- From cognitive experiments we realise that gesture is an important part of language
- Gesture accompanies language, sometimes replaces it
- Another set of “gestures” which is also important in communication is facial expression

# Why hearing?

- The human being controls language by perception of sound
- When hearing is not working correctly there might be problems in language acquisition
- When the cognitive process of hearing (understanding speech) is impaired you might have problems to express yourself correctly (e.g. Aphasia)



<http://www.youtube.com/watch?v=aVhYN7NTIKU>