1 Processes of Language Acquisition

The linguistic environment
Cognitive processes
Innate mechanisms

2 The Linguistic environment

- Feral and isolated children
- Victor—the wild boy of Aveyon
- Genie
- Children must be exposed to language early in life to develop properly.

3 The Critical Period Hypothesis

- There is a period in life in which we are especially prepared to acquire language.
- Johnson and Newport (1989) found a strong negative correlation between age of arrival and grammatical scores, within 0-16 years-old Korean and Chinese immigrants, but no correlation between 16-40 years old.

4 Gradual or abrupt?

- Hakuta, Bialystok and Wiley (2003) examined 2.3 million immigrants with Spanish and Chinese language backgrounds and found a strong decline in proficiency as the age of arrival increased from birth to 60 years of age.
- The decline was gradual.
- Abrupt decline would not necessary provide evidence for a critical period.
- Other factors: cognitive development, L1 interference, practice

5

- Snow and hoefnagel-Hohle (1978):
- Older learners seem to do better initially but they reach a plateau; younger learners eventually catch up and pass them.
- Younger children generally learn L2 better than older children and adults due to biological changes, environmental factors, and cognitive changes.

6 Motherese

- Phonological: exaggerated intonation, clear articulation
- Syntactic: shorter sentences
- Semantic: use of diminutives (e.g., doggie), concrete referents
- Pragmatic: preponderance of directives and questions

7 Motherese hypothesis

- There is a relationship between the speech adjustments adult make and children's language development.
- Strong: motherese is necessary
- Weak: : motherese assists a child's development

8 Testing motherese hypothesis

- Correlational studies have found limited relationships between parental speech and child language. (p318)
- Experimental approach (p. 318)
- Adult speech can influence development
- Recast group outperformed new-sentence and control group

9 Limitation of experimental studies

- Although they indicate that adults speech may influence child speech, they do not demonstrate that such speech modifications are necessary.
- Studies are limited in the number of grammatical constructions that have been used.

10 Universal and particular

- Universal features are not affected by environment factors
- Language particular characteristics are affected by environment.

11 Cognitive processes

- Operating principles—children's preferred ways of taking in information. (Table 12-2, p.321)

12 Sensorimoter schemata

- 2 year old
- The schemata the child uses to organize experience are directly related to taking in sensory information and acting on it.
- Banging, sucking, throwing
- End: object permanence

13 Predictions about language

- Children who have not acquired object permanence should use words that refer to concrete objects in the immediate environment.
- Children who have mastered object permanence should begin to use words that refer to object or events that are not immediately present.

14 Research

- Most research support the predications but not all.
- The variability of these results is probably related to the measures used to assess object permanence.
- The results stress the importance of the child's cognitive level in determining how a child responds to linguistic input.

15 Cognitive constraints

- Whole object bias
- Taxonomic bias
- Mutual exclusivity bias
- Innate or acquired from experience ?
- Domain specific?

16 Impairments of language and cognition

- Individuals with Down's syndrome tend to have language delays that are proportionate to the severity of their cognitive disability.
- Some individuals display cognitive skills that are advanced relative to the individual's linguistic skills.
- Although Genie's linguistic skills were rudimentary, her cognitive development is more age-appropriate.
- Individuals with cognitive impairments such as Williams syndrome, chatterbox syndrome have normal language ability.

17 Innate mechanisms

- The Language Bioprogram hypothesis
- Parameter setting
- The issue of negative evidence

18 Language Biogram Hypothesis

- Children have an innate grammar that is available biologically if our language input is insufficient to acquire the langue of our community.
- Pidgin
- creole

19 Language bioprogram

- Homesign
- Preemption principle: if you hear people using a form different from the one you are using, and do not hear anyone using your form, abandon yours and use theirs.
- Task specificity

20 Parameter setting

- Head parameter
- English is head-first.
- Japanese is head-final.
- Null-subject parameter (pro-drop parameter
- Subset principle

21 Negative evidence

- Positive evidence alone is consistent with too many competing grammars
- Negative evidence in not generally available.
- Therefore, some constraints must be innate.

22 Objections to innate mechanism

- Adults also have a robust drive to acquire language, but they acquire pidgins rather than creoles.
- Morphological defect family
- Children with Specific language impairment have deficits in processing rapid temporal sequences of auditory stimuli, not just speech.
- Modules are not born, they are made.