

Language Acquisition

Stages that we learn language...

1. **Babbling Stage** – 4 months
2. **Holophrastic Stage** (one word stage) – 12 months
3. **Telegraphic Speech Stage** (two word stage) – 24 months
4. **Sentences**
4 years old – 3 to 8 words long.
 - After the telegraphic stage we get ***overgeneralization***.



Overgeneralization

- Child will generalize grammar rules so they apply the rules too broadly.
- Example: "I dugged in the sandbox" rather than "I dug in the sandbox"



How do we learn language?



Learn Chinese Characters Vol1A

Learn Chinese Characters Volume 1A

水	心	人	口	小
山	天	下	上	中
文	明	日	用	才
生	公	白	平	不

End

Copyright ©2008 GeorgeKung.com Distribute Freely

How do we explain language
development?

Skinner

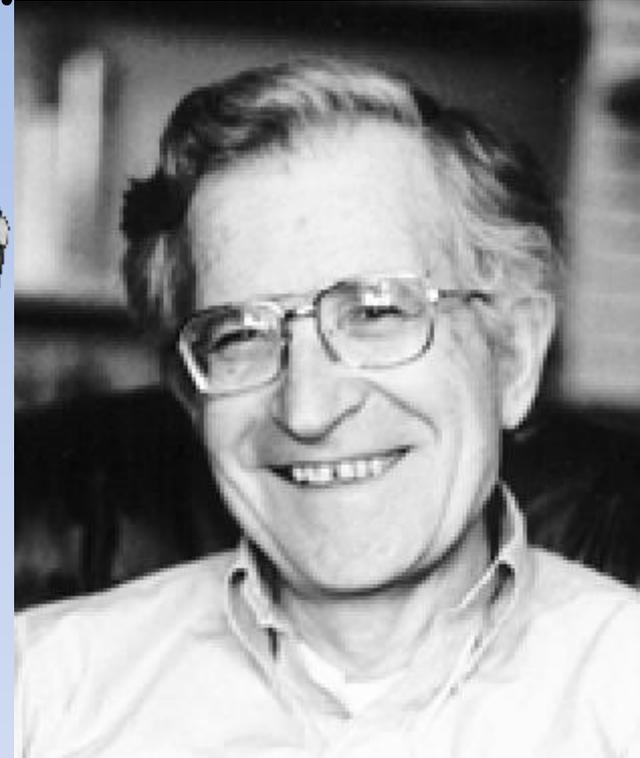
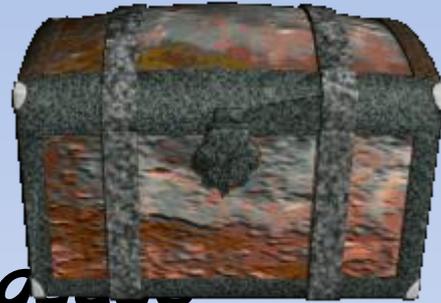
- Skinner thought that we can explain language development through *social learning theory* (which is?).



"It sure didn't pay to increase my vocabulary *that* time!"

Chomsky's Theory (nativist theory)

- We learn language too quickly for it to be through reinforcement and punishment.
- *Inborn universal language acquisition device (LAD)*
- LAD contains a set of features common to all languages, which he termed a **universal grammar**.



Chomsky's Transformational Grammar

- Surface Structure vs. Deep Structure
- Surface (Shallow) Structure
 - syntactic form of actual sentence
 - version of a sentence that can be spoken and heard.
- Deep Structure:
 - more abstract meaning of sentence
 - it is not spoken, but is represented in the mind when a sentence is produced or heard

Different surface structures but same deep structure:

- Sue corrected the homework.
- The homework was corrected by Sue.

or:

- The boy kissed the girl.
- The girl was kissed by the boy.
- Was the girl kissed by the boy?

According to Chomsky, we are able to look under the different surface structure and recognize that they have the same deep structure, telling us that they have the same meaning.

Same surface structure but can have *different* deep structures:

Visiting relatives can be a nuisance.

or

Annie hit a man with an umbrella

or

The shooting of the hunters was terrible.

Quick processing check:

- The two sentences “Elena won the race” and “The race was won by Elena” share which of the following structures?
- A. Sentence
- B. Syntactic
- C. Surface
- D. Deep
- E. Phonemic

Critical period hypothesis

Eric Lenneberg - 1967

- There is a critical period for language learning.
- There is no agreement about how long this sensitive period lasts.
- Genie (The Wild Child) provided evidence that language cannot be learned after puberty.

Does language influence our
thinking?

Sapir -Whorf's Linguistic Determinism

(Strong influence)

- The idea that language *determines* the way we think (not vice versa).
- Whorf argued that the Hopi tribe has no past tense in their language, so Whorf says they rarely think of the past.
(Now known to be false.)



Linguistic relativity (Weaker influence)

- Sapir-Whorf's hypothesis that language *can* influence the way we think
- People who speak different languages perceive and think about the world quite differently from one another

	Basic Color Terms					
English	purple	Blue	Green	Yellow	Orange	Red
Shona	cipswuk a	citema		cicena		cipswuk a
Bassa	hui			zǒza		



- Hungarian distinguishes between *piros* "light red" and *voros* "dark red"
- Russian distinguishes between *sinij* "dark blue" and *goluboj* "light blue"

A man and his son were in an automobile accident. The man died on the way to the hospital, but the boy was rushed into surgery. The emergency room surgeon said "I can't operate, that's my son!" How is this possible?

Language influences thinking

- Studies of the effects of the generic pronoun "he" show that subtle prejudices can be conveyed by the words we choose to express our everyday thoughts
- Some evidence indicates that vocabulary enrichment, particularly immersion in bilingual education, can enhance thinking
 - Children of signing deaf parents become fluent in sign language and outperform other students on measures of academic and intelligence achievement

Do people that speak more than one language think differently depending on their language at that time?

When a language provides words for objects or events, we can think about these objects more clearly and remember them. It is easier to think about two colors with two different names (A) than colors with the same name (B) (Özgen, 2004).

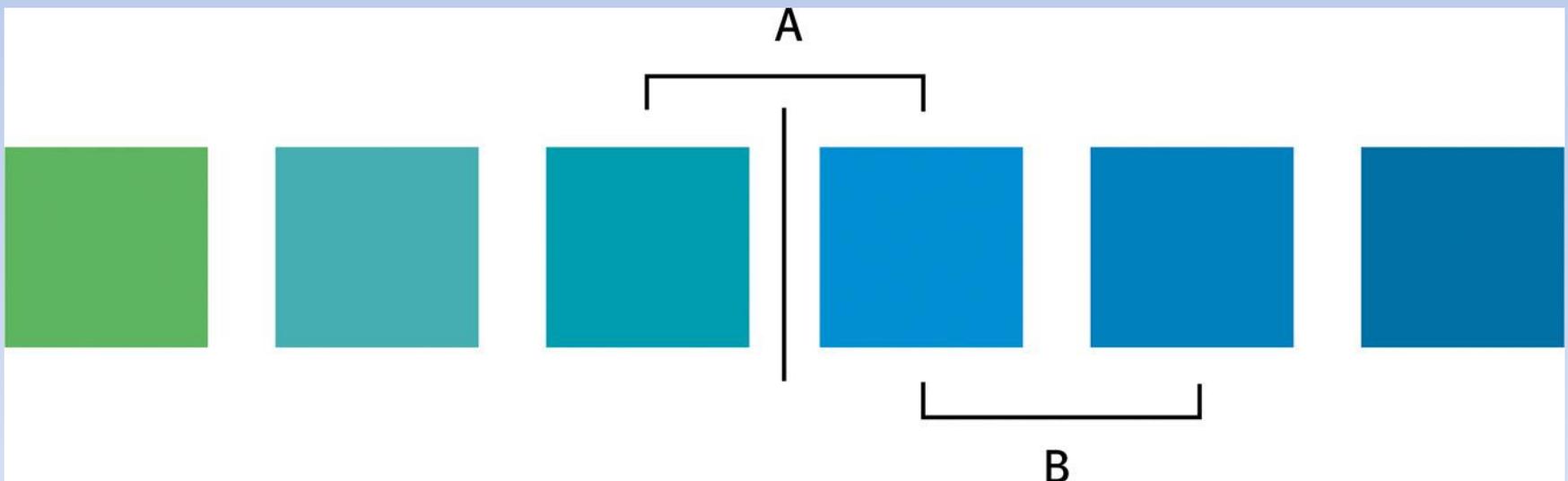


Figure 10.11 Language and perception
Myers: Psychology, Eighth Edition
Copyright © 2007 by Worth Publishers

Scenario one - The random breath test. Police officer: "Had anything to drink tonight, madam?"

Driver: "That's a complex question, but I would like to say that I've been driving for over a decade now and am comfortable that my offence-to-kilometre ratio is well below the national average."

Scenario two mathematics exam. Exam paper: "Differentiate $3x + \tan x$ with respect to x ."

Student: "Quite frankly I think I've answered enough questions on x and \tan over the past six years to make my position on this matter absolutely clear."

DOUBLESPEAK

Doublespeak is language designed to alter our perception of reality and to corrupt our thinking.

Can be humorous, like labeling a "mechanic" an "automotive internist"

- a. Euphamism - an inoffensive or positive word or phrase used to avoid harsh, unpleasant, or distasteful reality. Ie: Tax increase = revenue enhancement.
- b. Jargon - Specialized language of a trade or profession, such as medicine, law, engineering, psychology. Crack in metal support beam = discontinuity
- c. Gobbledygook - piling on words, or overwhelming the audience with long sentences.
- d. Inflated language - Makes ordinary seem extraordinary, to make everyday things seem impressive, or to make the simple complex.

Thinking in Images

To a large extent thinking is language-based.
When alone, we may talk to ourselves.
However, we also think in images.

We don't think in words, when:

1. When we open the hot water tap.
2. When we are riding our bicycle.

Thinking without Language

- **Artists, composers, poets, mathematicians, scientists, athletes think in pictures.**
- **Part of Olympic training now includes “visualization,” which consists of athletes visualizing themselves completing a flawless performance, out-witting an opponent, beating a certain time, etc.**

Do Animals think?



Kohler's Chimpanzees

- Kohler exhibited that Chimps can problem solve.



Do animals use language?

