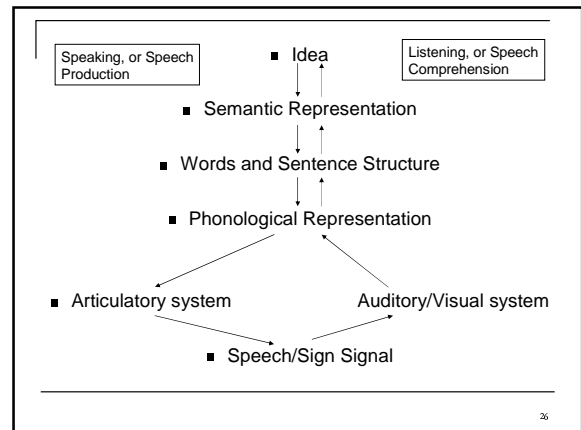


## Beginning Concepts, contd. Smith-Cairns, Ch. 1

Ling/Psych 371N, SP '03

April 7, 2003

NOTE: Some of today's material is not in your text. It was presented in-class only.



## A Brief History

- Before/during the 50s,
  - Linguists were interested in describing sounds and grammar of different languages
  - Psychologists were interested in language as another human behavior.

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## Behaviorism (Skinner and friends)

- Human behavior, including language, could be shaped via operant conditioning.
- How would a child acquire language under this view?

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## Behaviorism, contd.

- Learning how to put together sentences meant creating word pairs that go together:
  - The + cat; cat +chased; chased+ the; the+rat.
- Association chain theory:
  - Sentences are chains of associated word pairs.

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## Experiment to Support Behaviorist View of Language: Verplanck (1950s)

- **Hypothesis:** Language can be conditioned
- **Task:** Have conversations with people
- **Independent Variable** (controlled): presence or absence of affirming statements
- **Dependent Variable** (measured): number of opinionated statements
- **Result:** if positively reinforced, opinionated statements would increase in number.

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### Experiment to Support Behaviorist View of Language: Greenspoon (1950s)

- **Hypothesis:** Language can be conditioned
- **Task:** Have people say as many nouns as they can think of
- **Independent Variable:** presence or absence of affirming statements
- **Dependent Variable:** number of plural nouns
- **Result:** if positively reinforced, plural nouns would increase in number.

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### Chomsky: Argues against Behaviorist View

- Argument 1
  - 1. Sentences are not “association chains”
    - George **took out** the trash.
    - George **took** the trash **out**.
  - The words **took** and **out** are associated, but they do not have to be next to each other.

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### Chomsky, contd.

- Argument 1, contd.
- 2. How exactly are the words in these sentences associated?:
  - Beautiful violet flowers bloom vigorously.
  - Colorless green ideas sleep furiously.
    - Structure and meaning are independent!
  - Do the associations work in reverse?
  - Vigorously bloom flowers violet beautiful.

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### Chomsky, contd.

- Argument 2
- The behaviorist view of how children acquire language does not explain how they really acquire language:
  - “Poverty of the stimulus”
  - The language stimulus is too poor to account for children’s knowledge.
  - Children are able to produce more than they hear.

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