

### Language Production: Speaking, Writing, and Bilingualism

- Speaking
  - Production Process
  - Speech Errors
  - Producing Discourse
  - Social Context of Speech
- Writing
  - Intro
  - Cognitive Model of Writing
  - Planning, Sentence Generation, & Revision
  - Writing Style in Psychology
- Bilingualism
  - Background
  - Advantages
  - 2<sup>nd</sup> Language Proficiency & Age of Acquisition

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### Speaking

#### Production Process

- Stages
  1. Gist/ meaning
  2. General structure of sentence
  3. Word selection
  4. Articulate phonemes
- Planning
- Linearization Process
- Prosody

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### Speech Errors

- Usually well-formed; few errors (approx. 200-500 sentences)
- Unfinished sentences
- Dell (1995, 2008) - 3 types of errors

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### Types of Speech Errors Dell (1995, 2008)

1. Sound errors  
snack shop ----> shack snop  
snow flurries ----> flow snurries
2. Morpheme errors  
self-destruct instruction ---->  
self-instruct destruction
3. Word errors  
writing a letter to my mother ---->  
writing a mother to my letter

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### Various Forms

1. Exchanges  
previous examples
2. Anticipations  
reading list ----> leading list  
noisy bore ----> boisy bore
3. Perseveration  
waking rabbits ----> waking wabbits
4. Deletions  
same state ----> same sate

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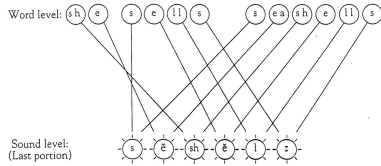
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### Dell's Model of Sound Processing

AN EXAMPLE OF DELL'S MODEL OF SOUND PROCESSING IN SENTENCE PRODUCTION (SIMPLIFIED).



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**SLIPS-OF-TONGUE**

Keep a record of all the slips-of-the-tongue that you either hear or make yourself in the next week. Classify each slip as a sound error, morpheme error, or word error. Furthermore, decide whether the error is an exchange error, an anticipation error, or some other problem. Also note whether the error occurs across items from the same category. Finally, see if you can determine why the error occurred, using an analysis similar to Dell's.

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**Discourse**

- Beyond word and sentence
- Narratives
- 6 parts convey
  1. Brief overview
  2. Summary of characters / setting
  3. Complication
  4. Point of the narrative
  5. Resolution of story
  6. Final signal
- Structure lends coherence / predictability
  - c.f. script and schema

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**THE STRUCTURE OF NARRATIVES**

During the next few weeks, try to notice, in your daily conversations, what happens when someone you know begins to tell a story. First, how does the storyteller announce that she or he is about to begin the narrative? Does the structure of the narrative match the six-part sequence we discussed? Does the storyteller attempt to check to see whether the listeners have the appropriate background knowledge? What other characteristics do you notice that distinguish this kind of discourse from a normal conversation that involves standard turn-taking?

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### Social Context of Speech

- Language as a social instrument
- Pragmatics
- Common ground - shared background and knowledge
- [Clark & Wilkes-Gibbs \(1986\)](#)
- Conversationalist Format
- Directives

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#### COLLABORATING TO ESTABLISH COMMON GROUND

For this demonstration, you need to make two photocopies of the figures below. Then locate two volunteers and a watch that can measure time in seconds. Cut the figures apart, keeping each sheet's figures in a separate pile and making certain the dot is at the top of each figure. Appoint one person to be the "director", this person should arrange the figures in random order in two rows of six figures each. This person's task is to describe the first figure in enough detail so that the "matcher" is able to identify that figure and place it in position 1 in front of him or her. (Neither person should be able to see the other's figures.) The goal is for the matcher to place all 12 figures in the same order as the director's figures. They may use any kind of verbal descriptions they choose, but no gestures or imitation of body position. Record how long it takes them to reach their goal, and then make sure that the figures do match. Ask them to try the game two more times, with the same person serving as director. Record the times again, and note whether the time decreases on the second and third trials as they increasingly efficient in establishing common ground? Do they tend to develop a standard vocabulary (for example, "the ice skater") to refer to a given figure?



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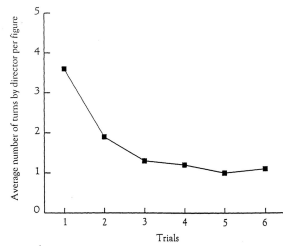
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AVERAGE NUMBER OF TURNS THAT DIRECTORS REQUIRED FOR EACH FIGURE, AS A FUNCTION OF TRIAL NUMBER. CLARK AND WILKES-GIBBS (1986).



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### Writing

- Research limited
- Writing vs. Speaking
- Cognitive Model (Hayes, 1996)
  - Social, physical, motivational factors
  - WM plays a central role
    - Phonological loop
    - Visual-spatial sketch-pad
    - Executive
  - LTM (semantic memory, topic knowledge, general schemas, audience, writing style)
- Planning, Sentence Generation, Revision

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### Planning & Sentence Generation

- Planning
- Goals
  - Amount and quality of planning highly correlated with quality of final essay
  - Outlining (Kellog, 1988; 1994; 1998)
    - Manage attention
    - Sequencing
- Sentence Generation
- Talking
  - Alteration of hesitant and fluent phrases
  - Computer vs. pen (Kellog, 1994, 1996; Hayes, 1996)
    - Same
    - Blocks of text

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### Revision

- Organization and coherence
- Reconsider goals
- College students
  - Give little time to revision (e.g., Torrance, 1999) 4%
  - Estimations incorrect, poor metacognition 30% vs. < 10%
- Expert vs. Novice Writers
  - Time revising
  - Sentence problems vs. organization, focus, and transitions
  - Diagnosing sentence errors
  - Drawbacks of expertise
- Proofreading

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### Bilingualism

- Bilingual vs. Multilingual
- Additive vs. Subtractive Bilingualism
- North America - subtractive bilingualism predominate
- Acquisition

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### Three Issues

- Advantages of bilingualism
- In-depth examination of how immigrants maintain their skills
- Relationship between acquisition age and language proficiency

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### Advantages of Bilingualism

- Early theorists
- Early research results (flawed)

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Peal & Lambert (1962) -  
1<sup>st</sup> well controlled study

- Bilinguals more advanced in school
- Scored better on tests of 1<sup>st</sup> language skills
- Showed greater mental flexibility
- Replicated many times

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Advantages of Bilingualism

- Expertise in own language
- Recognize arbitrariness of concept labels
- Metalinguistic knowledge higher
- Pragmatics
- Complicated Instructions
- Creativity
- Concept formation & Nonverbal intelligence
- Cognitive Reserve
- Delayed symptoms for Alzheimer's Patients

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Maintenance of First Language  
(Immigrants)

- Bahrick (1994)
- How well do they learn English?
- How well do they retain Spanish?

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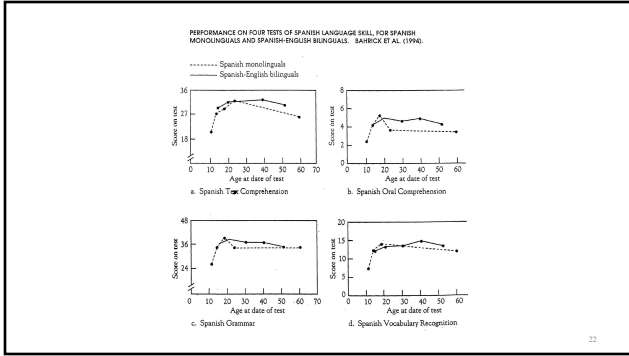
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### Second-Language Proficiency as a Function of Age of Acquisition

- Factors:
  - aspect measured
  - 2 specific languages
- Aspect
  - phonology
  - vocabulary
  - Grammar

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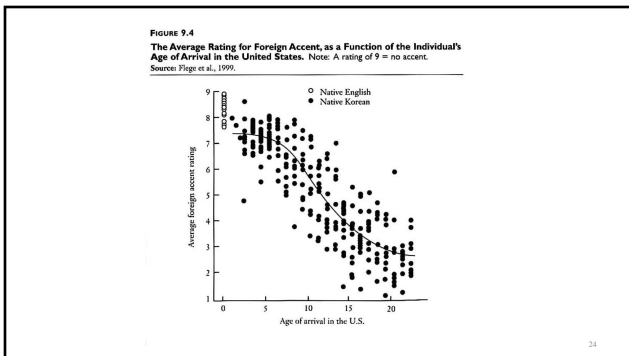
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### Vocabulary

- No relationship between age of acquisition and vocabulary proficiency in English
- Adults & children equally skilled in learning new words

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### Flege, et al. (1999)

1. Yes / No questions: *Should have Timothy gone to the party?*
2. Pronouns: *Susan is making some cookies for we.*
3. Plurals: *Todd has many coat in his closet.*

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### Grammar: Mixed Findings

- Initial Analysis--early acquisition advantage
- Confound--school experience -> formal training in English language
- Careful Analysis, controlling for education showed no difference

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**Additional Considerations**

- Match between L1 and L2
- Dissimilar Languages--children appear to have advantage
- Similar Languages--adults appear to have advantage

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