OUTLINE OF TOPICS COVERED SINCE EXAM 3

Remainder of Ch. 9 & 10: Language & Comprehension:

--Remaining 2 of the 3 levels at which one can analyze spoken language:

2. Syntax – rules for structuring sentences
    a. Rules for how words can be ordered relative to one another are essential to the conveyal of complex meanings or ideas. Rules for word order allow us to specify relationships among words. Take, for example, the sentence:
        "DARRYL HIT THE BALL WITH THE BAT."
        Shuffle these words around and the meaning is lost:
        "BALL THE HIT WITH DARRYL BAT THE."
    b. Knowledge of syntax: Early left-to-right approaches vs. Phrase-structure approaches. Why are left-to-right approaches inadequate? Where do Phrase-structure approaches fall short?
    c. Chomsky's Transformational Grammar – captures the "productive" or "generative" nature of language: We can come up with various ways of stringing words together to convey the same meaning.
        --Distinction between "Deep" structure and "Surface" structure
    d. Aphasia – disruption in a language ability due to brain damage
        Broca's vs. Wernicke's aphasias & syntax vs. meaning

3. Semantics – the meaning itself (the overall idea underlying a sentence)
    a. The meaning underlying a sentence is much more complex than the meaning underlying the individual words within it. There is an idea being expressed that involves knowing how the words relate to one another in the sentence—the functional roles that they are playing within that context.
    b. Case grammar approach – An approach to understanding how we decide what relationships the words in a sentence have with one another. According to it, we assign roles to words based on how the words are used (e.g., a word can play the role of "agent" or "recipient" or "instrument" etc. All of these roles will center around some action or relation—a role assigned to another word in the string). We begin assigning these roles as we are hearing or reading the sentence.
        --What are "garden path" sentences and what has research with them suggested about these ideas?
    c. How do we represent these meaningful relationships?
        Propositional theories – We represent the meaning underlying sentences in terms of their basic idea units (or propositions).
            --A proposition can be represented as a node with links connected to nodes representing content words; the links themselves represent the semantic roles being played by the content words (See pp. 309 –315).
            --A sentence with several propositions can be represented as a set of these propositional node structures linked together according to how they interrelate in the sentence.
        Support for Propositional Approach?
        1. Think back to the topic of memory for gist versus verbatim memory—what do people tend to retain from sentences over time?
        2. The Ratcliff & McKoon (1978) study mentioned in class (see also pp. 321-322).

--What is the gaze duration task? How is it used to study reading comprehension and under what basic assumptions?

--How do people's eye fixations differ for content (e.g., John, store) as opposed to function (e.g., the, a) words? Why do you suppose this is?

--The Relationship between Thought and Language:

--The Whorf hypothesis

--For which aspects of cognition would one's language be expected to have some influence cognition? For which would it not?

Ch. 11: Decisions, Judgments & Reasoning

I. Decisions about differences—symbolic distance & semantic congruity
II. Algorithms versus heuristics
III. Heuristics people use to make decisions:
    1. Availability heuristic
    2. Representativeness heuristic
    3. Simulation heuristic

Ch. 12: Problem Solving

I. Specific tendencies that inhibit people's ability to solve problems:
    1. Functional Fixedness
    2. Negative Set
II. Insight – act of "seeing" into a situation
    --Evidence that insight occurs suddenly, without warning
    --The role of analogy in achieving insight.
III. Means-end analysis

What you do NOT need to focus on:

--You do **NOT** need to:

1. know the diagrams on p. 361 or 362, or how to diagram sentences according to phrase structure grammar (as in Figure 9.9, pp. 374).
2. know how to derive a proposition (Figure 8-6, pp. 316 to top of 318).
3. read pp. 405-top of 413 (you do not need to know Gernsbacher's structure building framework or situation model).
4. read from bottom of pp. 424 to 428. (Just & Carpenter model)
5. read from bottom of p. 523 to top of 529 (GPS & ACT*)
6. read from p. 513-519 (A vocabulary of problem solving).