

**Psychology 5054: The Psychology of Language**  
**Spring, 2006**  
**Midterm Exam #3**

**Part 1: Multiple Choice.** Circle the letter corresponding to the correct answer. Only one answer is correct for each question. (1 point each)

1. According to the \_\_\_\_\_ the language that you speak determines how you perceive, think about, and remember the world around you.

- (a) *Sapir-Whorf Hypothesis*
- (b) Derivational Theory of Complexity
- (c) Principle of Minimal Attachment

2. Which of the following models assumes that text comprehension is primarily a bottom-up process?

- (a) *van Dijk and Kintsch's (1983) cyclical model*
- (b) Schank and Abelson's (1977) script-based model
- (c) Mandler and Johnson's (1977) story grammar model

3. If a speaker tried to say “big and fat” but instead said “fig and bat” it would be an example of a type of speech error called a \_\_\_\_\_.

- (a) *consonant reversal*
- (b) morpheme perseveration
- (c) voicelessness anticipation

4. In Hayes & Flower’s (1980) model of the cognitive processes involved in writing, individual differences are caused primarily by differences in \_\_\_\_\_.

- (a) short-term memory capacity
- (b) stored writing plans
- (c) *goal setting*

5. Dell’s (1986) model of speech production is formulated at the level of analysis that Marr (1982) calls the \_\_\_\_\_.

- (a) computational theory
- (b) *representation and algorithm*
- (c) implementation

6. Processing in Fromkin's (1971) Utterance Generator Model of speech production (1971) is \_\_\_\_\_.  
(a) bottom-up  
(b) *top-down*  
(c) interactive
7. According to Grice's maxim of \_\_\_\_\_, speakers should make their contributions to a conversation as informative as required, but no more.  
(a) *quantity*  
(b) quality  
(c) manner
8. In a(n) \_\_\_\_\_ the literal and contextual meanings of an utterance are *not* the same.  
(a) sincere request  
(b) *indirect speech act*  
(c) declaration
9. The “lexical bias effect” in speech error research refers to our tendency to \_\_\_\_\_.  
(a) hear words that were not in the speech stream  
(b) *make exchange/reversal errors that create real words*  
(c) leave out whole words during speech production
10. The planning process in Hayes & Flower’s (1980) model of writing includes \_\_\_\_\_.  
(a) *generating and organizing ideas*  
(b) reading and editing  
(c) generating ideas and editing

**Part 2: Definitions.** In just 1 or 2 sentences, give an operational definition for each of the following concepts. Your definition may come from an experiment you are familiar with or you may make up your own definition (as long as it accurately defines the concept and is operational). (2 points each)

**Grading Criteria:**

- **1 pt. for correctly identifying the concept**
- **1 pt. for using a procedural definition**

11. Psychological Distance Between Two Events in a Story

*To measure the psychological distance between two events in a story I would present the story to a group of participants along with several other stories then ask them to make speeded true/false judgements by pushing a TRUE or FALSE button as quickly as possible in response to test sentences presented on a computer screen. I would measure the reaction time for the second of the two events under two conditions, when it is preceded by a the first event and when it is preceded by an event from another story, and use the difference between these two times as my measure of the psychological distance between the two events.*

12. Memorability of Texts

*To measure the memorability of a set of texts I would ask 20 people to read and then recall each of them. Then I would calculate the number of propositions recalled from each text (meaning that the predicate and all its arguments were explicitly recalled) and use the percent of propositions correctly recalled from each text to measure its memorability.*

13. The Codability of Colors

*I would present squares of different colors to participants on a computer monitor and ask them to generate a name for each color as quickly as possible. The average naming latency (the time in msec that elapses between the presentation of a picture and the detection of a naming response by a voice key attached to a microphone) could be used to measure codability.*

14. The Codability of Colors (must be different than #13)

*I would present squares of different colors to participants on a computer monitor and ask them to generate a name for each color. The percentage of people giving the most common response could be used to measure codability.*

## 15. Memorability of Colors

*I would present small squares of each color for two seconds on a computer monitor then ask participants to choose the colors they had seen from a display containing all the colors plus an equal number of distractors. The percentage of participants who correctly identified each color could then be used to measure its memorability.*

**Part 3: Short Essay.** Answer each of the following questions using no more than half of a page for each. (5 points each)

16. Describe the difference between an automatic and a controlled process and give an example of each from Hayes & Flower's (1980) model of composition.

***Grading Criteria:***

- *1 pt. for identifying at least 3 of the 4 criteria for an automatic process*
- *1 pt. for identifying at least 3 of the 4 criteria for an controlled process*
- *1 pt. for an example of a controlled process from Hayes & Flower*
- *1 pt. for an example of an automatic process from Hayes & Flower*
- *1 pt. for coherence of answer*

***Example Answer:***

*Controlled processes must be intentionally initiated, they can be stopped at any time, we are consciously aware of their intermediate steps, and they use up short-term memory resources. In Hayes & Flower's model of writing, organizing ideas is a controlled process. Automatic processes occur whenever the appropriate stimuli are present, once they begin they cannot be stopped, we are not aware of their intermediate steps, and they do not use short-term memory resources. In Hayes & Flower, editing (i.e., detecting errors and deciding to fix them) is an automatic process.*

17. What is a "think aloud" protocol? According to Ericsson & Simon (1980) what conditions must be met before we can trust a "think aloud" protocol?

**Grading Criteria:**

- **2 pts. for describing what verbal protocols are**
- **1/2 pt. for each condition (2 pts maximum)**
- **1 pt. for overall coherence of the answer**

**Example Answer:**

*A "think aloud" protocol is a record of what people say when they are asked to "think out loud" while engaged in some cognitive task such as solving a logic problem or writing an essay. According to Ericsson & Simon (1980) we should only trust a "think aloud" protocols when the following conditions are met: (1) They are treated as data rather than as an explanations. (2) They are concurrent rather than retrospective. (3) The researcher can demonstrate that "thinking aloud" does not interfere with the primary task. (4) The researcher can demonstrate a connection between the contents of the verbal protocols and some additional, more objective, performance measure. (5) We have converging evidence which supports the same conclusions as the verbal protocols.*