

## Psycholinguistics FINAL (take home exam)

Due: noon, Monday, May 12, 2008

Please submit an electronic copy of your answers (in PDF, RTF, Word DOC, or text format) no later than noon May 12<sup>th</sup> (Monday). The exam should be sent both to me (badecker@jhu.edu) and to Charley Beller (beller@cogsci.jhu.edu). No extensions will be made beyond the noon deadline unless you have gotten my approval before noon on Sunday (the 11<sup>th</sup>). (Only short extensions are possible, and only for significant reasons.) Exams that are sent after the deadline are subject to grading penalties for lateness.

If you do need to contact me in order to ask about the exam, please contact Charley or me by e-mail, but do not wait until the last moment.

There are five questions. Each answer counts equally toward the exam grade, and full credit answers should not go much beyond 750 words. Fully satisfactory answers will also emphasize the rationale for any evidence cited.

Finally, your exam should reflect your work and your work alone.

### 1. garden-pathing and incrementality

Consider the following reading-time data for sentences read in isolation.

- (a) the technician / examined / the car / with / the / computer / ...  
392msec
- (b) the technician / examined / the car / with / the / carburetor / ...  
467msec

The reading times for the word “carburetor” in sentence (b) are 75msec greater than for the word “computer” in sentence (a). Answer **both** parts of this question:

1.1 How can this asymmetry be viewed as a consequence of the incremental nature of language processing? (Be sure to explain what is meant by incrementality, and why the notion of a garden path is relevant in this context.)

1.2 Interpret this experimental finding within each of these frameworks:

- the Garden-Path model
- the Referential Theory
- Constraint-Based Lexicalism

Be sure to describe the kinds of empirical evidence that can be used to distinguish these accounts of garden path phenomena.

## 2. Producing morphologically complex words

What evidence from normal or abnormal language production provides evidence for or against these two different hypotheses?

- (a) morphologically complex words like *walking* and *waterfall* are stored as whole units; word production for these words is based simply on the retrieval of these stored, whole-word representations.
- (b) the production of morphologically complex words requires a compositional process that combines the separately components (just as sentence production requires the composition of phrases and sentences from separately stored words).

## 3. anaphora

Consider the following discourse.

Donald is bringing some mail to Mickey,  
while a violent storm is brewing.  
He's carrying an umbrella,  
and it looks like they're both going to need it.

Researchers find that the referent of the pronoun /he/ is more often taken to be Donald rather than Mickey. How do current accounts of pronoun processing explain this finding?

## 4. sentence production (answer both parts)

4.1 Describe three kinds of evidence regarding the unit of incremental planning in sentence production (i.e., whether it is the word, phrase, clause or sentence). What evidence is there that the increment size might vary as a function of processing level?

4.2 According to the Garrett Model, why do only open-class words (e.g., email, actionability, goofing, soft) and not close-class words (e.g., of, would, that) participate in lexical exchanges?

## 5. Agreement

Consider the following speech error:

“the readiness of our conventional forces are at an all-time low”

What experimental evidence is there for or against the claim that this agreement error reflects

- the conceptual plurality of the Army, Navy, Air Force and Marines
- the morphosyntactic feature [PLURAL] spelled out on the word ‘forces’
- the /z/ sound at the end of the phonological word “forces” /forsɪz/