

Ling 101, *People and their Language*, Fall 2006

Discussion Sections 1 and 5

TA: Annahita Farudi Email: afarudi@linguist.umass.edu

Office Hours: Fridays 11.30-1.00, South College Room 303

Discussion Section 4

29 September 2006

1 Homework 2

1.1 Pinker's Hypothesis *A quick self-check.* Take a few minutes to write down an explanation, stated in your own terms, of Pinker's hypothesis regarding the status of regular and irregular plural nouns in English grammar.

Questions to address.

- What is the general claim?
- What is the purported generalization regarding the behavior of each of the plural classes in compound formation, and how, according to Pinker, does it bear on the broader hypothesis concerning the status of each type in English speakers' linguistic knowledge?

Further questions to consider.

Why is Pinker's hypothesis not complete with respect to the plural classes we've considered in lecture? That is, which classes does he not take into account?

Based on Pinker's hypothesis, what might you *hypothesize* regarding the behavior of these plural classes? Though Pinker does not explicitly discuss the 'semi-irregular' class (eg. *house~houses*),¹ does his hypothesis as formulated make any predictions with respect to how these types of plurals should behave in compound formation? Look for instance at the following examples:

1. cars-washers
2. bosses-hater
3. wives-abusers

¹Remind yourself of why these are called 'semi-irregulars'. What characterizes the plural formation rule to which they are subject?

How do you think each example should be predicted to behave in light of Pinker's theory, and why?

1.2 Analyzing your data

1.2.1 Experiment design

As we have just discussed, we are trying to determine the status of each different *class* of plurals in the rules of English. To do this, we need of course to calculate the averages of the subjects' judgments for the forms comprising each class. (See the bottom left corner of the attached spreadsheet).

However, we don't necessarily want the subjects to *know* what we are most interested in. If the stimuli are presented in such a way that the experimenter's interest in particular aspects of the data is clearly suggested, subjects are more likely to begin making their own hypotheses about the responses expected of them, and to modify their responses accordingly. In other words, they might start making *consciously* informed responses. This is undesirable. Remember, we are trying to test the speakers' **unconscious** knowledge of the relevant rules.

So, we add a **control** group in the form of the sentences containing singular forms of nouns belonging to each plural class, and we **randomize** the data by randomly interspersing the singular forms amongst the sentences containing members of the other classes, which are also arranged completely at random.

1.2.2 Guide to Spreadsheet (See attached page of handout.)

Column A 'item' : numbers correspond to the number of each sentence on the answer sheet. (Note that item 1 is actually on row 2 of the spreadsheet, 24 also corresponds to 25 on the spreadsheet, and so forth. Don't worry about this; just be sure to enter the number for each sentence into the row with the corresponding number in the 'item' column.)

Columns B-G, Rows 2-25: Insert your data into the appropriate cells of each table. *These are the only cells into which you need to input anything!* The averages will be calculated for you, as follows:

- Column H 'mean': contains the average for each row. The averages will be computed *automatically* as you enter the data, and appear in place of the DIV/0! which appears when you open the spreadsheet. You don't need to do anything to these cells.
- Rows 29-33 (bottom left corner): Similarly, the individual averages for each group are computed here.

1.4 Interpreting your data

Assuming you have entered all of your data above correctly, the heart of your results lie in these four columns. But numbers alone, of course, are not useful. We need to understand what the numbers mean.

- What is the difference between **quantitative** and **qualitative** results?

Example. Consider these results:

	Singular	Plural
(1) Regular nouns	1.50	3.44
Native irregular	1.94	2.50
Semi-irregular	1.83	3.17
Foreign-irregular	2.00	2.17

- What are the quantitative results?
- What are the qualitative results?
- > Eg. The subjects found native irregular plural nouns in compounds more acceptable than regular plural nouns.

What kind of quantitative results does Pinker's hypothesis predict? What does the data in (1) suggest about Pinker's hypothesis? Does it support it? Or refute it? Or neither?

Once you have spent some time considerably and critically reflecting on your quantitative results and their quantitative implications, you are in a position to conduct the final step of the experiment: evaluation of the original hypothesis in light of your results. In our case, we are taking Pinker's hypothesis as our starting point, so you should think about whether your results show that Pinker's hypothesis needs to be modified. If they do, *how* does it need to be modified?

1.5 Write-up

Include your conclusion, along with summaries of the other stages of your experiment in a **write-up** explaining the phenomenon under consideration, the starting hypothesis, the experiment, your results, and the conclusions you drew from them. A few reminders:

- Be sure to include **all of the required elements** listed on page 2 of the Homework.
- 750 words (not much shorter)
- Include your answer sheets as an appendix (*Please try to staple all of the pages—including the appendices—before you turn it in next week.*²)
- All of the same guidelines regarding the **form** of your essay that we discussed in relation to the last assignment still apply! Clarity of exposition is crucial in describing an experiment and its results. Be sure to incorporate the required elements in the form of well structured paragraphs, along with a clear introduction and conclusion.
- You will be **graded** on the basis of the length of your essay, clear and complete description of all the required elements, and on the essay's general organization, structure, and grammatical style.

²Which plural class does *appendices* belong to?

2 Animal Communication

Review. What are the factors that make human language unique amongst animal communication systems? Why, for example, isn't bird song the same type of communication system as is human language? Of the animal communication systems so far presented, which is in fact most comparable to human language?

What is the evidence that makes Patterson's and other trainers' claims that their chimpanzee subjects have 'learned' language dubious? How is Koko's use of signs different from normal human language, both ASL and spoken?

How does the recurring failure of attempts to teach other animals language bear on the issue of the extent to which language is instinctual (acquired in virtue of our nature) and the extent to which it is learned (acquired through nurture)?

Many have taken other animals' apparent inability to learn to use language in the same way humans do as definitive evidence in favor of instinctual basis of human language, and, by extension, in favor of its having, as Pinker (34) says, "an identifiable seat in the brain, and perhaps even a special set of genes that help wire it into place." Can you think of any reasons for why the fact that language use in the relevant sense seems to be limited to humans is *not* necessarily evidence for this conclusion?

Chomsky is the leading proponent of the position that the apparent lack of human-like communication systems among other species is also evidence for the conclusion that it did *not* develop in the species through the normal gradual process of evolution. Pinker (in Chapter 11 of your reading) argues against this conclusion. What is the counterargument he proposes and what is his evidence for doing so?

What would it take to convince you that an animal actually had learned a human language or its equivalent?

Have you ever felt convinced by your observations of communication involving your own pets, or other animals with whom you are well acquainted? According to your observations, are there any behaviors used by animals in communicating with members of their own species—or with their owners—that can appear to approximate human-like linguistic comprehension and/or production? A good example comes from the story of the horse Clever Hans.³ Can you think of any specific examples from your own experience?

³We'll discuss this story and the 'Clever Hans' effect if we have time. If we don't get it, see the link to the interesting article I will post on the section website.