

Psych56L/ Ling51

Winter 2011

Homework 1: Introduction & Biological Bases of Language Acquisition

Or “The Language Adventures of Sigmund von Hacklestein, part 1”

Remember to write your full name and University ID number on your assignment. If you collaborate with other students in the class, please make sure to indicate who you worked with.

(31 points total)

(1) Sigmund von Hacklestein hasn't been as good about attending class as you have, and he doesn't remember the difference between prescriptive and descriptive grammar. All he remembers about grammar is that his English teachers have chastised him for “splitting infinitives” (infinitive = *to VERB*, ex: to see), even though he does this in normal conversation all the time. Consider the interaction below:

Sigmund: “Why can't I write ‘*to boldly solve the Labyrinth*’ in my essay?”

Sigmund's Teacher: “Never split infinitives – here, you've split ‘to solve’ up with ‘boldly’.”

Sigmund: “But I want to clearly emphasize how bold she is! And I do this splitting infinitive thing all the time when I speak. So does *Star Trek*! – ‘to boldly go where no one has gone before’.”

Sigmund's Teacher: “I care about how *you* write, not how you speak. And I especially don't care about how the writers of *Star Trek* write.”

(a) Briefly define prescriptive grammar. [1 pt]

(b) Briefly define descriptive grammar. [1 pt]

(c) Is Sigmund's teacher advocating a descriptive or prescriptive rule of English? How do you know? [3 pts]

(2) Sigmund has been examining the CHILDES database for nouns. He has not found any child speech samples containing the noun “dragon”.

(a) Can he conclude that the children in the database do not know the word “dragon”? Why or why not? [3 pts]

(b) What might be a better way for him to test when children know the word “dragon”? [2 pts]

(3) Sigmund found three second-language speakers of English with very similar backgrounds, who all spoke the same native language, and who have all now spoken English for 20 years. However, they all started learning English at different ages. Attia started learning when she was 5 years old. Circe started learning when he was 8 years old. Marduk started learning when he was 15 years old.

(a) If a **critical or sensitive period** for language acquisition exists up to age 6, who should have the best language ability in English? Why? [2 pts]

(b) If a **critical period** for language acquisition exists up to age 6, should Attia's language usage be very different from Circe's? What about Attia's usage compared to Marduk's? What about Circe's compared to Marduk's? [3 pts]

(c) If a **critical period** for language acquisition exists up to age 9, should Attia's language usage be very different from Circe's? What about Attia's usage compared to Marduk's? What about Circe's compared to Marduk's? [3 pts]

(d) If a **sensitive period** for language acquisition exists, with overall achievement identical if the person starts to learn the language before the age of 6, and overall achievement deteriorating steadily if person learns the language between the ages of 6 and 20, should Attia's language usage be different from Circe's? What about Attia's usage compared to Marduk's? What about Circe's compared to Marduk's? [3 pts]

(4) Sigmund was amazed by split-brain patients, and wants to know more about what they can tell us about language in the brain.

(a) What is the defining feature of a split brain patient? (Hint: What brain part has been altered?) [1 pt]

(b) If a split brain patient sees a cat in her right visual field, will she be able to say "cat" out loud to identify what she saw? Why or why not? [3 pts]

(c) What about if a split patient sees a cat in her left visual field? Will she be able to say "cat" out loud to identify what she saw? Why or why not? [3 pts]

(d) Given the test results from (b) and (c), what would we conclude about where language is located in the brain of most adult speakers? Why? [3 pts]