

1) In Code

Baker (2001) describes what he calls the “Navajo Code Talker Paradox”. But Sigmund von Hacklestein is a little unclear on what is so paradoxical about it. Briefly explain to Sigmund what the apparent paradox is. You will find that an explicit example of two different languages (such as Navajo and English) will make your explanation much clearer. [4 pts]

2) True/False & Explain

For each of the statements below, indicate whether they are true or false. Then, briefly explain your answer, making sure to provide evidence/examples or cite relevant studies as appropriate. [3 pts each]

- a) For researchers in artificial intelligence, language is an easier problem to solve than playing chess.
- b) Greenberg’s insight about language variation was that languages with a shared history tend to have the same language patterns.
- c) The value of parameters for learning language structure is that they are responsible only for hard-to-notice patterns.
- d) Unambiguous data from the native language can never successfully be analyzed by the native language grammar.

3) Variations on a Theme

Sigmund von Hacklestein was very impressed by Yang (2004)’s idea about how unambiguous data affects when the child learns a particular structural property (parameter value) about the target language.

(a) Briefly explain what unambiguous data has to do with when the child learns a particular structural property about the target language, according to Yang (2004). [2 pts]

(b) Sigmund has gathered some Guin data, and found that Guin has the following structural properties: +wh-fronting, -verb-raising, -verb-second, -subject-drop, and +intermediate-wh. He has also determined how much unambiguous data a Guin child would likely encounter for each of these structural properties:

- +wh-fronting: 5% of input
- verb-raising: 2.5% of input
- verb-second: 2.5% of input
- subject-drop: 20% of input
- +intermediate-wh: 0.5% of input

(i) Which structural property would Yang (2004) predict a variational learner would learn first? Why? [2 pts]

- (ii) Which structural property would Yang (2004) predict a variational learner would learn last? Why? [2 pts]
- (iii) Would Yang's variational learner learn the –verb-raising property before the –verb-second property? Why or why not? [2 pts]
- (iv) Give the order in which Yang's variational learner would learn these structural properties, starting from the one acquired earliest and ending with the one acquired latest. [2 pts]