

Psych56L/ Ling51

Winter 2011

Homework 2: Phonological and Lexical Development

Or “The Language Adventures of Sigmund von Hacklestein, part 2”

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.

(59 points total)

(1) Decoding

Sigmund was very impressed with the International Phonetic Alphabet as a means of recording the sounds that make up the words of a language. Can you help him translate the following messages from IPA into English? You will probably find the IPA sound conversion chart posted on the class webpage to be helpful.

(From the “Top 100 Things I’d Do If I Ever Became An Evil Overlord”)

[3 pts each]

(a) aj wɪl nʌt ɪntɛrɒɡet məj ɛnəmɪz ɪn ðə mən seɪŋktəm. ə sməl hɒtəl wɛl ɔwtsaɪd məj bɔɪdəɪz wɪl wɔɪk ʤʌst æz wɛl.

(b) məj pɛt mʌnstəɪ wɪl bɪ ʤeɪpt ɪn ə sɛkjəɪ kɛdʒ frəm wɪtʃ ɪt kænʌt ɛskɛp ænd ɪntu wɪtʃ əj kʊd nʌt æksɪdɛntlɪj stʌmbəl.

(c) wʌnts məj pʌwəɪ ɪz sɛkjəɪ, əj wɪl dɛstrɔɪj ɔl ðəwz pɛskɪj tʌɪm tɪævəl dɔvajsəz.

(d) wɛn əɪɛstɪŋ pɹɪzənəɪz, məj ɡɑrdz wɪl nʌt əlʌw ðɛm tuw stʌp ænd ɡɹæb ə ʤuwsləs tɪŋkət əv pɹɔɪlɪj sɛntəmentəl vɛljʊw.

Now can you help Sigmund translate this English sentence into IPA?

(Again from the “Top 100 Things I’d Do If I Ever Became An Evil Overlord”):

(e) My vats of hazardous chemicals will be covered when not in use. Also, I will not construct walkways above them.

[6 pts]

(2) Sigmund has been playing with some young Guin children who are just learning to pronounce the words of the Guin language. Here is a word they know:

Word	stress contour (stressed syllables in CAPITALS)	IPA
grinetta	griNETta	/gɹɪnɛtə/

Circe is an 18-month-old Guin child who sometimes uses various phonological processes when she is pronouncing Guin words. For each pronunciation below, indicate which phonological process(es) is (are) responsible for the observed pronunciation, and show the derivation from original pronunciation to observed pronunciation.

Example phonological process & explanation:

Original word pronunciation: “grinetta”

Observed pronunciation: /dɹɪnɛtə/

Phonological process: assimilation

Derivation: /gɹɪnɛtə/ → /dɹɪnɛtə/ when /g/ picks up [+alveolar] feature from /n/ or /ɹ/ or /t/.

- (a) “grinetta” pronounced as /nɛ/ [2 pts]
- (b) “grinetta” pronounced as /dɛ/ [4 pts]
- (c) “grinetta” pronounced as /dwɪdɛtə/ [6 pts]

(3) Sigmund has been observing how the Guins use the word “feesh” (pronounced /fiʃ/). He has observed 5 instances of feesh, and has noticed the following features associated with each instance:

- (i) feesh 1: striped fur, tail, pink nose, green eyes
- (ii) feesh 2: golden fur, tail, pink nose, yellow eyes
- (iii) feesh 3: golden fur, tail, pink nose, green eyes
- (iv) feesh 4: striped fur, tail, black nose, green eyes
- (v) feesh 5: striped fur, no tail, pink nose, green eyes

(a) For each of the following feesh features, calculate the weight each should have, given these five instances of feesh. [1 pt each]

Ex: striped fur

Calculation: 3 feesh have striped fur, out of 5 total

Answer: 3/5 or 0.60.

- (i) golden fur
- (ii) tail
- (iii) no tail
- (iv) pink nose
- (v) black nose

- (vi) green eyes
- (vii) yellow eyes

(b) For each of the following feesh, calculate the membership score, using the feature weights calculated in the previous section. [2 pts each]

Ex: feesh 1, who has striped fur, tail, pink nose, green eyes

Calculation:

= striped-fur-feature-weight + tail-feature-weight + pink-nose-feature-weight + green-eyes-feature-weight

= 0.60 + ...[rest of feature weights, taken from part (a)]

Answer: [total score once all feature weights above are added together]

- (i) feesh 4
- (ii) feesh 5
- (iii) a new object with the following features: golden fur, no tail, black nose, yellow eyes
- (iv) a new object with the following features: striped fur, tail, black nose, yellow eyes

(c) Which of the two new objects ((iii) or (iv)) above is more likely to be a feesh? Why? [2 pts]

(4) Sigmund has been examining the lexical development of some English children, and wants to figure out in each case whether the child is using overextension, underextension, both, or neither. Help Sigmund identify the right process in the following cases, making sure to explain why you think so. [3 pts each]

Ex:

Situation: A child uses the word “bear” to refer to a teddy bear, a panda, and a tabby cat, but not to a monkey.

Answer: This is overextension, since the child refers to something that is not a “bear” (the tabby cat) as a “bear”.

(a) Situation: A child uses the word “bear” to refer to a teddy bear, a grizzly bear sticker, and a polar bear cartoon character, but not to a canary sticker or a panda sticker.

(b) Situation: A child uses the word “bear” to refer to a polar bear cartoon character, a stuffed bear toy, and a panda bear sticker, but not to a stuffed kitty toy or a neighbor’s dog.

(c) Situation: A child uses the word “bear” to refer to a polar bear sticker, a panda bear at the zoo, the panda’s cage at the zoo, and a stuffed panda bear, but not to a monkey at the zoo or the monkey’s cage.

(d) Situation: A child uses the word “bear” to refer to a teddy bear, a panda at the zoo, and the panda’s cage at the zoo, but not to a neighbor’s pet Dalmatian or a polar bear sticker.