Psych56L/ Ling51
Winter 2012
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.

(92 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) wɛn aj ɛmplɔj pipəl æz ədvajzəɹz, aj wɪl əkeʒənəli lɪsɛn tu ðɛɹ ædvajs.

(b) aj wɪl nɑt flaj ɪntu ə redʒ ænd kɪl ə mɛsəndʒəɹ hu bɹɪŋz mi bæd nuz dʒʌst tu ɪləstɹet haw ivəl aj rili æm. gʊd mɛsəndʒəɹz ɑɹ hɑɹd tu kʌm baj.

(c) aj wɪl bi niðəɹ ʃɪvəlɹəs nɔɹ spɔɹtɪŋ. ɪf aj hæv æn ʌnstɑpəbəl supəɹwɛpən, aj wɪl juz ɪt æz ɚli ænd æz ɔfɛn æz pɑsəbəl ɪnstɛd əv kipɪŋ ɪt ɪn ɹɪsɚv.

(d) aj wɪl dɹɛs ɪn bɹajt ænd tʃiɹi kʌləɹz, ænd so θɹo maj ɛnəmiz ɪntu kʌnfjuʒən.

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) If it becomes necessary to escape, I will never stop to pose dramatically and toss off a one-liner.
[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
nebitrem	NEbiTREM	/nɛbətɹɛm/

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: "nebitrem"
    Observed pronunciation: /nɛmətɹɛm/
    Phonological process: assimilation
    Derivation: /nɛbətɹɛm/→ /nɛmətɹɛm/ when /b/ assimilates the [+nasal] feature from /n/ or /m/.

    (a) "nebitrem" pronounced as /nɛtɹɛm/ [2 pts]
    (b) "nebitrem" pronounced as /mɛmətɹɛm/ [4 pts]
    (c) "nebitrem" pronounced as /dɛtɛm/ [6 pts]
    (d) "nebitrem" pronounced as /dɛpɛb/ [8 pts]

 (3) Sigmund has been observing how the Guins use the word "peng" (pronounced /pɛŋ/). He has observed 5 instances of *peng*, and has noticed the following features associated with each instance:

    (i) peng 1: black back, white belly, orange beak, black eyes
    (ii) peng 2: black back, white belly, yellow beak, black eyes
    (iii)peng 3: black back, white belly, yellow beak, pink eyes
    (iv)peng 4: white back, white belly, yellow beak, pink eyes
    (v) peng 5: black back, black belly, orange beak, black eyes

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

Ex: black back
Calculation: 4 peng have striped fur, out of 5 total
Answer: 4/5 or 0.80.

    (i) white back
    (ii) white belly
    (iii) black belly
    (iv) orange beak

(v) yellow beak
(vi) black eyes
(vii) pink eyes

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

Ex: peng 1, who has black back, white belly, orange beak, black eyes
Calculation:
= black-back-feature-weight + white-belly-feature-weight + orange-beak-feature-weight + black-eyes-feature-weight
= 0.80 + ...[*rest of feature weights, taken from part (a)*]
Answer: *[total score once all feature weights above are added together]*

      (i) peng 4
      (ii) peng 5
      (iii) a new animal with the following features: white back, white belly, orange beak, pink eyes
      (iv) a new animal with the following features: black back, black belly, yellow beak, black eyes

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

(4) Sigmund learned about two conceptual distinctions that languages sometimes use words or parts of words to distinguish: tense and aspect. To make sure he really understands what these are, help Sigmund identify whether the following sentences differ in tense, aspect, both, or neither. You should identify what tense and aspect each sentence has. [5 pts each]
      Ex: He is laughing.
              He was laughing.
      He is laughing = present tense, imperfective aspect.
      He was laughing = past tense, imperfective aspect.
      Differences: tense

      (a)   He laughed.
             He was laughing.
      (b)   He laughed.
             He did laugh.
      (c)   He will be laughing.
             He is laughing.
      (d)   He was laughing.
             He will have laughed.
      (e)   He laughs.
             He is laughing.

(5) 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 "birdie" to refer to a stuffed penguin, a stuffed cat, and a canary sticker, but not to a stuffed monkey.
Answer: This is overextension, since the child refers to something that is not a "birdie" (the stuffed cat) as a "birdie".

(a) Situation: A child uses the word "birdie" to refer to a penguin sticker, a parakeet at the zoo, the parakeet's perch at the zoo, and a stuffed owl, but not to the family cat or the neighbor's dog.

(b) Situation: A child uses the word "birdie" to refer to a penguin sticker, a parakeet at the zoo, and the parakeet's perch at the zoo, but not to the family cat or a stuffed penguin.

(c) Situation: A child uses the word "birdie" to refer to a penguin sticker, a canary sticker, and an owl cartoon character, but not to a panda sticker or a crow sticker.

(d) Situation: A child uses the word "birdie" to refer to a penguin cartoon character, a stuffed owl toy, and a crow sticker, but not to a stuffed kitty toy or a neighbor's dog.