Psych56L/ Ling51
Winter 2014
Review Questions: Phonological Development

(1) Terms/concepts to know: IPA, voiced, voiceless, manner of articulation, place of articulation, nasal, oral, (bi)labial, labiodental, interdental, alveolar, postalveolar, palatal, velar, glottal, stop, fricative, affricate, liquid, glide, tap/flap, diphthong, cooing, prosody, High Amplitude Sucking (HAS), Head-Turn Preference Procedure, Head-Turn Technique, categorical perception, across-category perception, within-category perception, motherese, phonological idiom, phonological processes, final consonant deletion, consonant cluster deletion, unstressed syllable deletion, stopping, gliding, denasalization, fronting, assimilation, consonant harmony

(2) What's the reason for having the International Phonetic Alphabet? That is, explain why it's not more sensible to just use the spelling systems that already exist for the languages of the world.

(3) Consider the following statement: All languages use the same set of sounds. Can you think of one way to interpret this so that it's true? (Hint: Think about what the IPA is supposed to describe.) Can you think of one way to interpret this so that it's false? (Hint: Does English use all the same sounds as German or French?)

(4) How would you argue against someone who claims that babbling is how babies communicate?

(5) What evidence is there that babies' babbling is influenced by the language they hear?

(6) Explain how the vocal play stage of infant development may actually be driven by the infant's physical growth.

(7) Is social interaction helpful when children are learning the sounds of their native language? Briefly explain how you know. (Hint: Think of what happens when children interact with a live human as opposed to a television broadcast.)

(8) How do we know the ability to hear their own vocal output is important for infants' phonological development? (Hint: Think about what happens in the case of deaf infants.)

(9) What is an example of categorical perception? Explain what it means to have categorical perception, and why the example you describe is an example of it.

(10) Suppose you presented subjects ten acoustic stimuli (S1-S10) that vary continuously over a single dimension and recorded what the subjects reported they perceived. If the subjects showed categorical perception on this set of stimuli, should they report hearing each stimulus as sounding different (that is, hearing ten distinct sounds)? Why or why not?

(11) What evidence do we have that infants have categorical perception? What evidence do we have that non-humans have categorical perception?

(12) What evidence is there that motherese helps infants acquire the phonological system of their language? (Hint: Think about the properties of motherese that might be useful.) Is motherese necessary for successful language acquisition?

(13) What are the two main types of phonological processes children use to simplify the pronunciation of words?

(14) 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/.

    (a1) "grinetta" pronounced as /gɪnɛtə/
    (b1) "grinetta" pronounced as /nɛ/
    (c1) "grinetta" pronounced as /gwɪnɛtə/
    (d1) "grinetta" pronounced as /gɹɪdɛtə/
    (e1) "grinetta" pronounced as /dɛ/
    (f1) "grinetta" pronounced as /dɹɪdɛtə/
    (g1) "grinetta" pronounced as /gwɪdɛtə/
    (h1) "grinetta" pronounced as /dwɪdɛtə/

Here is another word Circe knows:

Word	stress contour (stressed syllables in CAPITALS)	IPA
nebitrem	NEbiTREM	/nɛbətɹɛm/

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.

(a2) "nebitrem" pronounced as /nɛtɹɛm/

(b2) "nebitrem" pronounced as /nɛtɛm/

(c2) "nebitrem" pronounced as /dɛtɹɛm/

(d2) "nebitrem" pronounced as /dɛtɛm/

(e2) "nebitrem" pronounced as /mɛbətɹɛm/

(f2) "nebitrem" pronounced as /mɛmətɹɛm/

(g2) "nebitrem" pronounced as /mɛmətɛm/

(h2) "nebitrem" pronounced as /dɛbətɛb/

(i2) "nebitrem" pronounced as /dɛpɛb/

(15) What are two ideas on why children use phonological processes to simplify word structure? (Hint: Think about children's production limitations and perception limitations.)