Teaching Resources for Chapter 4

**Links**

• [*basic*] The International Phonetic Alphabet (or IPA) is a way to write the sounds in any language. This link has the standard IPA chart. It also includes a link that will allow you to hear what all the different phones sound like, as pronounced by the famous phonetician, Peter Ladefoged. http://phonetics.ucla.edu/course/chapter1/chapter1.html

• [*intermediate*]There are several website available that cover the basics of articulatory phonetics. This site from the University of Iowa provides some great interactive diagrams and charts, along with animations and videos of the articulatory system in action for sounds of English, Spanish, and German: http://www.uiowa.edu/~acadtech/phonetics/

• [*intermediate*]The ULCA Phonetics Lab Archive allows you to listen to a wide variety of languages and hear what their sounds are like. You can also see IPA transcriptions of what is being said. http://archive.phonetics.ucla.edu/main2.htm

• [*advanced]* Different dialects of English can be identified partly based on the way they use different phonological inventories. The Telsur Project at the University of Pennsylvania looks at the way people across the United States pronounce words differently and has helped to map out where speakers use different vowels and consonants phonemically and allophonically. <http://www.ling.upenn.edu/phono_atlas/home.html>

**Activities for Students**

• PHONBank is a part of the CHILDES database that is devoted to children’s phonological development. Go to site (http://childes.psy.cmu.edu/phon/) and download the Demo Corpus. You’ll get a file that needs to be unzipped. Open up the DemoVideo (PhonDemo\_1\_5 > \_\_res > media > DemoVideo.mov). Listen carefully to the child in the video and transcribe the sounds he is saying. How easy (or difficult) is it to do this? What differences do you notice between the way he pronounces words and the way the adult in the video does?

• Using the internet (Google, Wikipedia) identify the words for Mother and Father (or, Mom and Dad) across 10 different languages. Be sure to choose languages that are spoken in different parts of the world, and from some un-related language families! What do you notice about these words? How can you explain the similarities (and differences) in the word forms for these concepts using what you’ve learned about phonological development?

**Online Movies**

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| Movie Name | Access | Description | Time |
| Babbling in sign language | http://www.youtube.com/watch?v=YIG0hjGgFWc | A very short clip of a deaf infant babbling in ASL | 0:9 |
| How English sounds to Non-English speakers | http://www.youtube.com/watch?v=Vt4Dfa4fOEY | A short indie-style movie in which the actors speak “fake-English”. It gives an idea about how much information you can get from tone and expressions, as well as giving an idea about how it feels to listen to a language you don’t understand. Note, there is some adult language in this clip. | 4:06 |
| Live video movements during speech production (MRI at 20 ms) | http://www.youtube.com/watch?v=uTOhDqhCKQs | A brief x-ray video showing the vocal tract in motion as someone speaks. There is no sound. | 0:26 |
| Prisencolinensinainciusol | http://www.youtube.com/watch?v=FcUi6UEQh00 | An Italian musical number where the lyrics are in a nonsense language that sounds like English. It’s very funny, and gives a terrific idea of how much information about a language is conveyed through rhythm, stress, phonotactics and style. | 4:03 |
| The Birth of a Word | http://www.ted.com/talks/deb\_roy\_the\_birth\_of\_a\_word.html | A TED talk in which Deb Roy talks about his Speechome project. | 19:53 |

**Movies on CD**

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| 1.1  Child at 11 months | On Existing Student CD | Rex at 11 months. Rex is a monolingual English-learning child playing with toys and his parents. Illustrates well:  • Very early interactions with a book  • Attempt to pronounce a /b/ sound | 1:48 |
| 1.2  Child at 14 months | On Existing Student CD | Rex at 14 months. Rex is a monolingual English-learning child playing with toys and his parents. Illustrates well:  • Comprehension even without clear production  • May say /k/ to represent “cookie”  • Parent-child interactions and social intentions | 1:06 |
| 1.3  Child at 20 months | On Existing Student CD | Rex at 20 months. Rex is a monolingual English-learning child playing with toys and his parents & 2 sisters. Illustrates well:  • Labeling of a truck using not quite adult-like phonology  • Parental modeling of phonemes | :56 |
| 1.4  Child at 3 years | On Existing Student CD | Mimi at 3 years. Mimi is a monolingual English-learning child playing with blocks. Illustrates well:  • More advanced (but still not adult-like) phonology  • Adult-child interactions  • Appropriate level syntactic abilities | :53 |
| 4.1  Child at 6 months | On Existing Student CD | Kaylana at 6 months. Kaylana is a monolingual English-learning child playing with toys. Illustrates well  • Reaching behaviors (not pointing)  • Limited social abilities with adults  • Vocalizations of various sorts – all pre-babbling sorts | 2:32 |
| 4.2  Child at 11 months | On Existing Student CD | Rex at 11 months. Rex is a monolingual English-learning child playing with toys and his parents. Illustrates well:  • Learning by listening (watch him practice pronouncing /b/ after his parents talk about balls).  • Pointing  • Communicative vocalizing (not language) | 1:37 |
| 4.3  Child at 14 months | On Existing Student CD  (note – this appears to be an extended version of the same clip in 1.2) | Rex at 14 months. Rex is a monolingual English-learning child playing with toys and his parents. Illustrates well:  • Following simple directions  • May say /k/ to represent “cookie”  • Parent-child interactions and social intentions | 4:09 |
| 5.1  Child at 17 months | On Existing Student CD | Rex at 17 months. Rex is a monolingual English-learning child playing with toys and his parents. Illustrates well:  • Parent-child interactions  • Phonological development (he has difficulty saying “Pooh” and several non-adult like pronunciations)  • Parental support for word learning | 2:31 |
| 6.1  Child at 20 months | On Existing Student CD | Rex at 20 months. Rex is a monolingual English-learning child playing with toys and his parents. Illustrates well:  • Parent-child interactions  • Parental modeling of sounds and child’s imitation of them  • Some recognizable words | 1:20 |

**Quicktime Movies**

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| The Wug Task: 9-year-old | Quicktime movie file | A 9-year-old boy engages in the Wug task and demonstrates his knowledge of plural formation | 0:26 |
| 8-month-old Vocalizations | Quicktime movie file | A brief clip showing an 8-month-old child playing with a toy and making various vocalizations. | 0:24 |

**Sample Test Questions**

1. Languages differ:
   1. only in terms of the inventory of sounds they use.
   2. both in the inventory of sounds that they use and in tersm of which sounds convey changes in meaning
   3. languages do not differ in their sounds.
   4. only in terms of which sounds to convey changes in meaning.
2. The sounds that create differences in meaning are called:
   1. phones
   2. allophones
   3. phonemes
   4. distinctive features
3. Phonotactics refers to:
   1. the combination of consonants and vowels into syllables.
   2. the variation across languages in terms of sound inventories.
   3. language specific constraints on the sequencing of sounds.
   4. the way speech sounds are used to form new words.
4. The relationship between phonemes and letters of a conventional alphabet is:
   1. in a many-to-one correspondence: each sound corresponds to one letter but each letter may correspond to many different sounds.
   2. in a one-to-many correspondence: each sound may corresponds to many different letters, but each letter corresponds to one sound.
   3. in a one-to-one correspondence: each sound corresponds to one letter and each letter to one sound.
   4. in a many-to-many correspondence: each sound may correspond to many different letters and each letter may correspond to many different sounds.
5. The three main articulatory dimensions used to describe consonant sounds are:
   1. stops, fricatives, and affricates.
   2. phonetics, phonemics, and distinctive features
   3. phones, phonemes, and allophones
   4. manner of articulation, place of articulation, voicing
6. The content of infants’ babbling is:
   1.  influenced by the language the infant hears.
   2. not influenced by the language the infant hears until s/he is using words.
   3. the product of anatomical considerations.
   4. completely unrelated to language development.
7. The development of infants’ speech sounds follows the following trajectory:
   1. canonical babbling, vegetative sounds, words, non-redupicated babbling,
   2. vegetative sounds, canonical babbling, non-redupicated babbling, words
   3. canonical babbling, non-redupicated babbling, vegetative sounds, words
   4. words, canonical babbling, non-redupicated babbling, vegetative sounds
8. Phonological processes are:
   1. the processes through which children learn to perceive phonemes.
   2. the systematic order in which children develop the phonological system.
   3. systematic sound changes that children make when producing sounds in their early words
   4. the processes that languages use to organize phonemes.
9. Which of the following constitute evidence that children’s phonological development is influenced by environmental factors?
   1. the inventory of children’s early sound systems differs depending on the language of the surrounding adults.
   2. parents who treat infant babbling as conversational speech encourage their children to produce more vocalizations than parents who do not.
   3. infants adjust their speech as a result of feedback they receive from their own vocalizations during vocal play
   4. all of the above are evidence for the importance of environmental factors on phonological development.
10. Phonological awareness is:
    1. the ability to produce phonemes correctly.
    2. the ability to think about and reflect on the sounds of one’s language.
    3. the ability to read an alphabet.
    4. not a particularly useful skill.
11. The development of phonology depends on:
    1. both biological and environmental factors.
    2. biological and physical maturational factors almost exclusively.
    3. social and environmental factors almost exclusively.
    4. computational and linguistic factors almost exclusively.
12. Which of the following is a FALSE statement about children’s early word recognition?
    1. Children show no evidence for recognizing words before they can produce words.
    2. Before they reliably produce words, infants can recognize when a word has been mispronounced by as little as one sound
    3. Before 12 months of age, infants have difficulty recognizing familiar words when they are spoken in a different accent.
    4. Before 10 months of age, infants have difficulty recognizing that a word is the same one if it is spoken by speakers of two different genders.
13. The phonological development of individual children:
    1. depends on the particular language children are learning and also on the particular strategies that each child prefers to use.
    2. each child develops phonology in a wholly unique way and there are no generalizations to be found across individuals.
    3. depends on the specific language children are learning, but within a language, there is virtually no variation.
    4. shows virtually no variation. Children learning all languages produce sounds in the same order and at approximately the same ages.
14. Which best describes the relationship between phonological and lexical development?
    1. phonological development leads lexical development: children’s first words are composed of sounds from within children’s phonological inventory and children with larger inventories usually have larger vocabularies
    2. lexical development leads phonological development: as the size of children’s lexicons gets larger, they develop more precise phonology in order to distinguish among the words.
    3. neither answer A nor B are true: phonological and lexical development operate wholly independently from each other.
    4. both answers A and B are true: the relationship between phonological and lexical development is an inter-dependent one.
15. What do biologically and usage based theories of phonology focus on?
    1. Biologically based theories focus on the importance of computational constraints of phonotactics while usage based theories focus on how phonology is used in emerging literacy.
    2. Both biologically and usage based theories focus on the organization of the phonological system.
    3. Biologically based theories focus on the role of anatomical and physiological factors in development while usage based theories focus on the role of environmental input.
    4. Biologically based theories focus on the role of environmental input while usage based theories focus on the role of anatomical and physiological factors in development.
16. How might you expect a very young child to pronounce the words “water” “telephone” and “skunk”? Identify and explain the phonological processes that yield the child-like pronunciations that you come up with.
17. Discuss children’s babbling. Be sure to consider the form of babbling (and the different kinds of babbling); the purpose of babbling; the relationship of babbling to vegetative sounds as well as to words; and the role of children’s input in the nature of their babbling.
18. To what extent does early speech development depend on the child’s biological development and abilities and to what extent does it depend on the child’s environmental input? Provide at least one example of how the child is influenced by biological factors and one example of how the child is influenced by environmental factors.