Teaching Resources for Chapter 5

**Links**

• [*intermediate*] The MacArthur-Bates Communicative Inventory (MCDI). This is the main page for the MCDI. Inside the site it is possible to find lexical development norms for children acquiring English and Spanish from 8 – 30 months of age. http://www.sci.sdsu.edu/cdi/

• [*basic*] To get a feel for what the word segmentation problem feels like for an infant, it helps to listen to a foreign language being spoken. At this site from Radio World Japan, you can listen to radio broadcasts in several different languages.

http://www3.nhk.or.jp/nhkworld/english/radio/program/16lang.html

**Activities for Students**

• Calculate your own vocabulary size. You will need a large, unabridged dictionary in its physical paper form (you can’t use an online dictionary for this). Try to use a dictionary containing at least 100,000 words in it. To estimate your vocabulary, choose two pages from the dictionary and find the percentage of entries on each page that you know. Then apply that percentage to the total size of the dictionary to get an estimate of your total vocabulary. Do you think the estimate is accurate? Why might it be higher or lower than your actual vocabulary?

• Even as an adult, you are still learning words, and you still use many of the same strategies that young children use. To see how you do these, get a highly technical text on an unfamiliar topic – ideally one with pictures. Depending on your major, you might try a medical text, an engineering text, or even a cookbook. Read through a few pages and identify 10 words that you don’t know. See how much you can figure out about those works, including the apparent intentions of the text’s author, the syntactic sentence frames the words are used in, surrounding pictures, and contrasting elements. Link the strategies you are using to figure out the words’ meanings to those described in the book. When you’re done, look up the meanings of the words in a dictionary and see how well you did.

**Online Movies**

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| Movie Name | Access | Description | Time |
| How Babies Learn Language | http://www.youtube.com/watch?v=mZAuZ--Yeqo | Short documentary from USC featuring the research of Toben Mintz on infants’ ability to use vowel harmony for word segmentation. Shows examples of babies in the head-turn preference procedure, Mintz, and a student of Mintz’s discussing the research. | 9:19 |
| 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 |
| Saffran Lab example | Page: http://www.waisman.wisc.edu/infantlearning/Participation.html  Video: http://www.waisman.wisc.edu/infantlearning/Participation\_files/Language.mpg | Webpage from the Saffran lab. About half way down is a link to a video of an infant word segmentation study | Less than a minute |
| Naigles Lab example | Page:  http://www.cll.uconn.edu/ipl.html  Noun Bias Video:  http://www.cll.uconn.edu/documents/NounBiasPIffenClip.mov | Webpage from the Naigles lab about the IPL method. Video shows the stimuli for a noun bias study. | Less than a minute |
| Anne Fernald: Why Efficiency in Processing Language is Important | http://www.youtube.com/watch?v=verqCmPrnY8 | A short interview with Anne Fernald about her research on the speed of word identification. Shows clips of children in a looking-while-listening paradigm. Comes from the larger program “Mind in the Making – The Essential Life Skills Every Child Needs” by Ellen Gallinsky | 2:25 |
| An Experiment by Anne Fernald: Efficiency in Processing Language | http://www.youtube.com/watch?v=I7HN5LJOc-w&feature=relmfu | Focuses on the methods used by Anne Fernald to investigate children’s speed of language processing. Comes from the larger program “Mind in the Making – The Essential Life Skills Every Child Needs” by Ellen Gallinsky | 1:54 |
| Word Segmentation | Page:  http://www-bcf.usc.edu/~langdev/projects.html  (video follows main text) | Brief documentary about word segmentation featuring interview with Toben Mintz of USC. | 2:10 |
| Propose but verify – Lila Gleitman | http://www.youtube.com/watch?v=CXUf-Ci90xM | An informal short lecture by Lila Gleitman about why cross-situational observation is a bad word learning strategy, and discussion about how fast mapping might work. | 7:39 |

**Movies on CD**

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| 5.5  Word learning from a human or robot experiment | On Existing Student CD | This video comes from the lab of Diane Poulin-Dubois. It shows a child participating in a word learning experiment that demonstrates they will learn a new label from either a person or from a robot that behaves contingently and looks human. The first 1:00 shows the stimuli establishing the robot as a contingent actor; the experiment proper starts after that. | 2:10 |

**Quicktime Movies**

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| Infant Word Learning | Quicktime movie file | A description of Bergelson & Swingley (2012) in which they demonstrated that 6-month-old children know the meanings of some common nouns. The clip includes some text as well as videos of the infants’ eye-tracking data in the study. | 0:52 |
| Bilingual Word Comprehension | Quicktime movie file | A video demonstration of a French-English bilingual child in a word comprehension task. The videos were provided courtesy of Diane Poulin-Dubois and the surrounding text reflects the findings in Poulin-Dubois et al. (2012) on word comprehension in bilingual children. | 1:11 |

**Sample Test Questions**

1. The definition of a word is:
   1. a collection of phonemes that obeys a language’s phonotactic rules.
   2. an arbitrary symbol that refers to elements in the word.
   3. a sound that is used to communicate.
   4. the smallest unit of meaning in language.
2. Children typically say their first words around:
   1. 7 - 9 months
   2. 10-15 months
   3. 18 months
   4. 24 months
3. One of the first words of a young child was “go.” For almost a month, the child said this word only when her mother was buckling her in her car seat. This is an example of:
   1. a mental lexicon.
   2. a proto word.
   3. context-bound word use.
   4. a hyper word.
4. Children’s first 50 words:
   1. are highly idiosyncratic and differ dramatically from child to child.
   2. contain no function words among them.
   3. are acquired very rapidly as soon as a child begins to talk
   4. consist of a variety of kinds of words, but at least in English, contain a relatively large number of nouns.
5. Which of the following is TRUE about nouns and verbs in children’s early word learning?
   1. Nouns and verbs typically refer to different kinds of meanings, and the meanings of nouns may be easier for children to learn.
   2. Children require different kinds of information to learn nouns and verbs: noun meanings can often be learned through observation alone while many verb meanings require children to use syntactic information as well.
   3. In some languages, nouns and verbs are present in approximately equal quantities in children’s early vocabularies.
   4. All of the above statements are true.
6. Children’s on-line processing of words:
   1. is something that researchers still have no way to measure.
   2. demonstrates that children’s knowledge of words is binary: either a child knows everything about a word or nothing about it.
   3. is positively correlated with their vocabulary size: children who are faster processers have larger vocabularies.
   4. demonstrates that children have extensive difficulties processing even the simplest words.
7. The vocabulary Word Spurt:
   1. is idiosyncratic: some children show them and some do not.
   2. is necessary for typical language development.
   3. happens to all children once they have acquired 50 words.
   4. happens to all children at approximately the same age.
8. Compared to a child who uses a more Expressive style, children who have a Referential style are:
   1. more likely to use a wide variety of social expressions.
   2. more likely to use nouns that can be easily understood by adults.
   3. likely to be more advanced in their language skills as they enter school.
   4. more likely to have used a holistic approach when learning their first words..
9. Factors that can influence a child’s rate of vocabulary development include:
   1. the socio-economic status of the child’s household.
   2. the amount of speech parent addresses to the child.
   3. the child’s personality, including how shy or outgoing the child is.
   4. all of the above factors can influence a child’s rate of vocabulary development.
10. Which of the following is a FALSE statement about the process of word segmentation:
    1. infants are able to use melodic and rhythmic cues to help them find word boundaries.
    2. it is facilitated by short pauses introduced after each word in spoken language.
    3. it can be facilitated by properties of child directed speech, such as shorter utterances.
    4. infants are able to use statistical cues within the speech signal to help them segment words by 9 months of age.
11. A child is presented with a picture of an unfamiliar object and told that “This is a pagoda. Do you see the fancy finial?” The child determines that the entire item is called a “pagoda” and that the ball on the top is called a “finial”. What word learning processes did this child make?
    1. Cross-situational observation and Fast Mapping
    2. the Whole Object assumption and the Mutual Exclusivity assumption.
    3. the Principle of Contrast and Syntactic Bootstrapping.
    4. the Taxonomic assumption and the Principle of Conventionality
12. Syntactic Bootstrapping is a word learning process that:
    1. allows children to draw inferences about a word’s meaning from the sentential context in which it is used.
    2. requires children to have access to social-intentional information, such as eye-gaze.
    3. helps children learn about words for footwear.
    4. children are unable to make use of until they enter school.
13. A child is presented with a picture of an unfamiliar animal and told it is called “a hyrax”. That child can use the Taxonomic assumption to draw which of the following inferences?
    1. the word “hyrax” can be used only when talking about the single specific example of the animal shown in the picture.
    2. the word “hyrax” can be extended to refer to all animals that look like animal in the picture.
    3. the word “hyrax” can be extended to refer to items that are thematically related to the animal in the picture, such as the type of food it likes to eat.
    4. the child would refuse to learn the word “hyrax” because not enough syntactic context was provided with the picture.

1. Fast-mapping refers to:
   1. the ability to learn the meaning of a new word based on only a few instances.
   2. the ability to correctly reproduce the phonological form of a new word
   3. the phenomenon of overextension.
   4. the phenomenon of underextension.
2. Looking at words across languages, researchers have found that:
   1. all languages use the same words so that each word in one language corresponds to a single word in each other language.
   2. there is very little overlap in word meanings across languages so that every language describes the world in arbitrarily different ways.
   3. languages differ somewhat in the contents of their lexicons, and also in their preferred ways of describing elements in the world.
   4. regardless of content and frequency differences in the lexicons across languages, children are not sensitive to these differences until they enter school.
3. Compare and contrast how a child would learn the meaning of a concrete object term (such as *table*, or *dog*), a more abstract property term (such as *happy* or *special*), and n action word (such as *jump* or *eat*). What kinds of informational clues would be most helpful in each case? What kinds of processes or biases would help the child in each case?
4. Discuss three elements that might influence the rate of children’s acquisition of words. Be sure to note whether each element is likely to increase or decrease the rate of acquisition.
5. Some researchers have argued that context bound words are not truly referential and should not count as “real” words. (1) Explain what a context bound word is and when children typically use such items. (2) Describe how one would determine if a word is context bound or not. (3) Discuss the similarities and differences among context bound words, overextensions, and underextensions. And finally, (4) Decide if you agree or disagree that context bound words should not be counted as real words and explain why (or why not).