

Early Experiences Matter

- Infants’ exposure to language in the womb is the beginning of language learning (Moon, Lagercrantz & Kuhl, 2013)
- By 10- to 12-months of age, infants have begun to specialize in hearing the sounds of their native language (Kuhl et al., 2006)

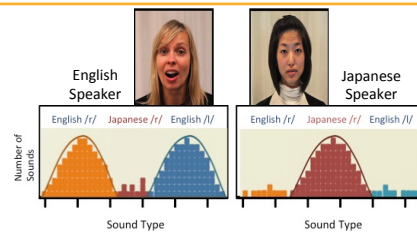


From Sounds to Sentences

How do babies learn the sounds of language?

- Infants compute statistics on the language they hear to learn categories of speech sounds in their native language
- Children compute statistics – and learn words – best from other humans

(Kuhl, 1992; Kuhl et al., 2003)



How do babies combine sounds to learn words?

- 8-month-olds isolate unknown words in a stream of speech using only statistics
- Children learn words best when adults use Infant-Directed Speech, and when they repeat a single word or include a familiar word with unfamiliar words

(Bortfeld et al., 2005; Saffran et al., 1996; Ramirez-Esparza et al., 2014)

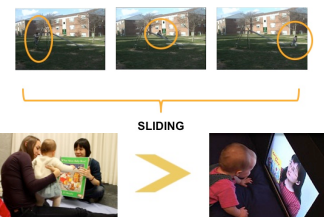


- ✓ “See the tiger right there? Tiger!”
- ✗ “See the tiger right there?”

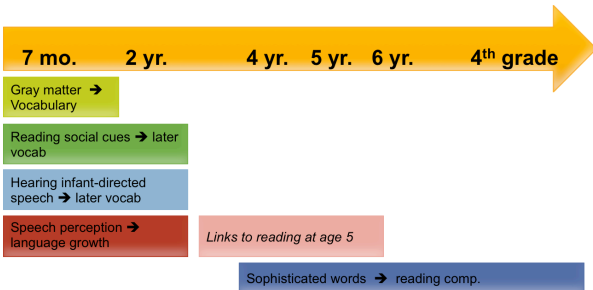
How do babies discover what different words refer to?

- Infants detect when event components reliably occur together and label this event (**climbing – descending – dismounting = sliding**)
- Word learning is best in social interactions in which live, familiar humans provide scaffolding, use eye gaze and follow the child’s lead

(Brooks & Meltzoff, 2002; Kuhl et al., 2003; Roseberry et al., 2011)



Early Experiences Set the Stage for Learning



We are beginning to understand early predictors of language:

- Following a speaker’s eye gaze and using pointing gestures predicts children’s vocabulary at 2 years of age (Brooks & Meltzoff, 2008)
- Becoming attuned to native speech sounds in the first year predicts language at 24- and 30-months of age...and may even link to reading readiness at age 5 (Kuhl et al., 2005; Lebedeva et al., 2010)