

Overview Phonology

- ▶ **Phonology** – sounds of language and rules for use
- ▶ **Phoneme** – basic unit of sound that carries meaning in a language (aka phone, p. 440 Owens, 2008)
- ▶ **Allophone** – difference in sounds that doesn't change meaning in language
 - "beatuh" and bea(t)," aspirated and unaspirated final t
 - Speech sounds are not produced in isolation, rather words have mixes of sounds
 - ▶ /k/ in "kitchen" versus "coffee" (place change of /k/)
 - ▶ /æ/ in "man" versus "bat" (manner change of /æ/)
 - ▶ "seesaw" (lip placement change of /s/)
- ▶ Threefold classification: place, manner, voicing

Manner Classes

Table A.1 (p. 442, Owens, 2008)
Review definitions and sounds for each:

- ▶ Fricatives
- ▶ Stops or Plosives
- ▶ Affricates
- ▶ Glides
- ▶ Liquids
- ▶ Nasals

Note that Owens (2008) groups glides and liquids together as "approximants"

Places of Articulation

Table A.1 (p. 442, Owens, 2008)
Review definitions and sounds for each:

- ▶ Labiodental
- ▶ Bilabial
- ▶ Interdental (or Dental)
- ▶ Alveolar
- ▶ Palatal
- ▶ Velar
- ▶ Glottal

Note Owens (2008) divides palatals into "postalveolar" and palatal

Phonological Development

- ▶ Most phonological development occurs between 18 months and 4 yrs.
- ▶ By age 4, child uses most sounds of adult system correctly, some only inconsistently although generally capable
- ▶ Developmental data of phonological production suggests a range:
 - Customary production: 50% of children produce 2 of 3 positions correctly
 - Mastery: 90-100% of children produce 3 of 3 positions correctly

Shriberg, 1993

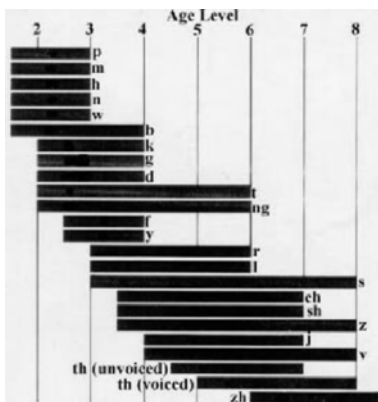
A "Sequence" of Development

Early 8 m b j **n** w d p h

Middle 8 t k g ŋ f v tʃ ɔ̃

Late 8 ʃ θ ð s z l r ʒ

Sander 1972 (compiled Templin, 1957 & Wellman et al., 1931)



Phonological Processes

- ▶ Phonological processes are rules children use during production that reflect their phonological representation and production abilities.
- ▶ A description, not an explanation
 - Syllable reduction or Weak syllable deletion
 - Cluster reduction
 - Final consonant deletion
 - Initial voicing
 - Velar fronting
 - Liquid gliding
 - Assimilation (aka Consonant Harmony)
- ▶ See Table 9.11, p. 304 and pp. 302-307 Owens, 2008

Examples to Practice

- | | |
|----------------------|---|
| ▶ "top" for "stop" | ▶ Cluster Reduction |
| ▶ "tun" for "sun" | ▶ Stopping |
| ▶ "tan" for "can" | ▶ Velar Fronting |
| ▶ "boo" for "boot" | ▶ Final Consonant Deletion |
| ▶ "weaf" for "leaf" | ▶ Liquid Gliding |
| ▶ "tabi" for "table" | ▶ Liquid Simplification (Vowelization) |
| ▶ "guck" for "duck" | ▶ Assimilation |
| ▶ "doo" for "shoot" | ▶ "d" for "sh" = Stopping AND Palatal Fronting AND Initial Voicing; "t" omitted = Deletion of Final Consonant |

Phonological Process Development

Examples of Processes Disappearing by Age 3

- ▶ Final consonant deletion
- ▶ Unstressed syllable deletion
- ▶ Assimilation
- ▶ Reduplication
- ▶ Velar fronting (3 ½)

Examples of Processes Persisting after Age 3

- ▶ Cluster reduction
- ▶ Gliding
- ▶ Stopping (v, th)

Site with normative info
web site
Bowen, 1998

Phonological development theory:

- ▶ Child is an *active* learner
- ▶ The word is most likely the basic unit
- ▶ Prosody may be an early factor
- ▶ Although predictable sequence for sound acquisition, individual variability also exists
- ▶ Some biological constraints in anatomy & physiology of speech and hearing mechanism play a role in development (vocal tract and neurological maturation)
- ▶ Idea of a self-organizing organism

Three Stages in Phonological Development or a Continuity Model (Locke, 1983)

- (1) Pragmatic Stage - desire is to communicate, but child begins to notice effects of his/her own babbling and sound production
- (2) Cognitive Stage - first attempts at adult words, sounds don't match adult system, rather they rely on child's babbling patterns and pattern matching skills
- (3) Systemic Stage - now sounds child produces become more like the adult system, rule-governed
