

Normal Development of Speech & Language

- Language...“Standardized set of symbols and the knowledge about how to combine those symbols into words, sentences, and texts in order to convey ideas and feelings.” (Gillam & Bedore, 2000)
- Speech...The ability to produce language. Speech involves the areas of articulation, voice, and fluency.

In other words, language is what you say. Speech is how you say it.

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Background

- Phonemes
- Allophones
- How speech sounds are produced
- Syllables
- Prosody
- Phonology
- Morphology
- Syntax

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Phonemes

- Phonemes are sounds that cause changes in meanings...

e.g., tea, key, fee, me In this case the /t/, /k/, /f/, /m/ change the meaning of the words. Also notice that it is possible that words can be spelled differently but yet have the same phoneme.

e.g., see and cite begin with the /s/ phoneme

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Allophones

- Subtle changes in production of phonemes.
- E.g., difference of /k/ in “key” and “coo”

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How speech sounds are produced

- Vowels
 - Open oral tract and use of voice (vocal fold vibration)
 - Divided into different groupings dependent upon position of tongue.
- Consonants
 - Classified by ...
 - Manner of Production
 - Place of Production
 - Use of Voicing

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The Vowels of English

Table 2-1. The Vowels of English

	Front	Central	Back
High	i		u
	ɪ		ʊ
Mid	e	ɜ, ə	o
	ɛ		ɔ
Low	æ		ɒ
	ɑ		ɔ

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Manner of articulation

- Relates to how the airflow is blocked during speech production.
 - Plosives or stops: complete blockage of airflow (e.g., /b, p, t/)
 - Fricatives: no blockage of airflow, but oral cavity is constricted. (e.g., /s, ʃ, v/)
 - Affricatives: combination of plosives and fricatives (e.g., /tʃ/)
 - Nasals: complete blockage of oral cavity, and airflow passes through nasal cavity. (e.g., /m, n/)
 - Semivowels (glides & liquids): vowel like properties but subtle differences (e.g., /l, r, w/)

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Place of articulation

- Bilabial
- Labio-dental
- Dental
- Alveolar
- Palatal
- Velar
- Glottal

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Use of voicing

- Voiced consonants (e.g., /g, v, z, d/)
- Unvoiced consonants (e.g., /s, p, t, f/)

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The Consonants of English

Table 2-2. The Consonants of English

		Bilabial	Labiodental	Dental	Alveolar	Palatal	Velar	Glottal
Plosive	Voiceless	p			t		k	
	Voiced	b			d		g	
Fricative	Voiceless		f	θ	s	ç		h
	Voiced		v	ð	z	ʝ		
Affricate	Voiceless					tʃ		
	Voiced					dʒ		
Liquid	Central				r			
	Lateral				l			
Glide		w						
Nasal		m			n		ŋ	

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Syllables

- Units of speech containing consonant and vowel sounds.
- In some cases a vowel may stand alone as a syllable.
- Can have strong and weak syllables. (e.g., baseball vs. lemon)

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Prosody

- Change in pitch, stress, intensity and duration in connected speech production.
- Changes may affect the meaning of a word or phrase.
 - E.g., “a name” and “an aim” are identical on a phonemic level but have very different meanings. or CONTRast vs. conTRAST.

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Language

- Phonology
- Morphology
- Syntax

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Phonology

- The study of sounds used to make words and involves certain rules of use.
 - E.g., to make a plural we normally would add an /s/. To omit this you are breaking a phonological rule.

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Morphology

- Relates to the internal organization of words. A morpheme is the smallest grammatical unit that has meaning.
- Types of morphemes
 - Free morphemes
 - Units that may stand alone (e.g., bee)
 - Bound morphemes
 - Units that may not stand alone (e.g., -s, -ed, -ing, etc.)

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Syntax

- Refers to organizing word order. Syntax is synonymous with grammar
- Different languages have different syntactic rules.
 - E.g., casa grande = house large
 - “Store go me” (ASL) = I am going to the store.

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Language Content: Semantics

- Linguistic representation of objects, ideas, feelings, and events, as well as the relations between these phenomena.
- Lexicon: Has to do with vocabulary or lexicon (mental dictionary of words)

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Language Use (pragmatics)

- Pragmatics
 - What to say, how to say it, and say to whom
 - Use of language is dependent upon culture, society, and situation.
 - E.g., “ok” has many meanings depending upon how we say it.
 - Another example is the use of sarcasm.

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- Individual differences in speech and language development.
- No one develops language at the same rate or in the same manner.

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Stages of Development

- First words occur slightly before 12 months.
- Usually have vocabulary of 20 words by 12 months and 200 words by age two
 - Video clip 2.1

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**Children
Narrating
"Frog, Where
Are You?"**

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Stages of Development

- Begin combining words around 18 months.
- 1800 word expressive vocabulary by age 4.
Receptive vocabulary of around 3,000 to 4,000 words.

Stages of Development

- Sentences become progressively more complex
- Every year in school children pick up to 3,000 different words.
- By the time they are high school seniors they have about 18,000 words
- During this time they are developing metalinguistic awareness, & begin to use metaphors and idioms.

Metalinguistic awareness

- Awareness of one's own knowledge about language.
- E.g., the ability to say what sounds comprise a word or the ability to explain why a sentence is not correct.

Metaphors

- Words that usually mean something other than the literal meaning.
- E.g., “The world is your oyster.”
- “It is hotter than hell”

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Idioms

- Expressions that have literal and figurative meaning.
 - “The buck stops here”
 - “Robbing Peter to Pay Paul”
 - “Get off your high horse”

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Speech & language in adulthood

- Continued increase in adulthood, but is usually socially or vocationally related.
- Later in life semantic ability can decrease, especially if words and phrases not used.

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Language Content: Phonology

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Babbling (vocal play)

- Experimenting with the production of a great number of sounds at around 6 to 8 months.
- Reduplicated babbling
 - Involves repetition of different sounds
- Variegated babbling
 - String together different syllables.

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Jargon

- Use of nonsense words with real words. This begins around 10 months and continues until about age two.
- View video clip 2.3

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Jargon **Jargon**

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Phonology continued

- Between the ages of 2 to 5 children produce sounds with increased accuracy.
- By the time the child is between 4 and 5 they should correctly produce 95% of speech sounds correctly.
- Beginning at age 5 or 6 the child will be able to consciously break down words to syllables to phonemes. This is important for reading. This is known as phonological awareness.

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Language Form: Morphology & Syntax

- By age two the child should be using two word utterances.
- By age five the child should use more complex morphology and syntax. They often can use words up to ten words long.
- Use an increasing number of morphemes (-s, -ed, -ing, etc.)
- By the time the child is eight they should be using multiple clauses.

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**Children
Narrating
"Frog, Where
Are You?"**

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