

## Chapter 1 Language and Human Communication An Overview

### Objectives

The objectives for this chapter suggest that you would want your students to be able to discuss:

- Communication, language, and speech, and understanding the differences between them.
- Extralinguistic aspects of communication, including paralinguistics, nonlinguistics, and metalinguistics.
- The phonological, semantic, syntactic, morphological, and pragmatic components of oral language.
- Various communication modes.
- Several of the biological, cognitive, and social bases of human communication.

### Chapter Overview

The purpose of this chapter is to serve as an overview of the foundations of human communication and other topics that provide a platform for discussing children's language disorders. The author discusses the terms *communication*, *language*, *speech*, and *extralinguistic elements of communication*, and looks at the different components of language and the relationship between understanding and using language. The author also considers different communication modes. Finally, there is a review of some of the biological, cognitive, and social bases of human communication.

### Lecture Outline

#### Role of Human Communication

- Role of listener
- Role of speaker

#### Differentiation of Speech and Language

- Language
  - Code or symbolic system
  - Expressive and receptive
  - Written and oral
- Speech
  - Oral expression of language
  - Neurological control of movement of the articulators

#### Extralinguistic Aspects

- Paralinguistics
  - Stress
  - Pitch
  - Intonation
- Nonlinguistics
  - Nonverbal communication
  - Proxemics
  - Kinesics
- Metalinguistics
  - Use language to think
  - Monitor and clarify messages

#### Components of Language

- Phonology – speech sounds and the rules for sound sequences
- Semantics – meaning
- Syntax – set of rules of how words are to be used together
- Morphology – rules for using grammatical markers or inflections
- Pragmatics – function of language

## Comprehension and Production

- Receptive skills – decoding
- Expressive skills – encoding

## Communication Modes

- Auditory – Oral System: Hearing and Speech
- Visual – Graphic System: Reading and Writing
- Visual – Gestural System
  - Manual
  - Augmentative/Alternative Communication (AAC)

## Biological, Cognitive, and Social Bases of Human Communication

### Biological Bases

- Hearing and Listening
- Speech and Talking
- The Nervous System
  - Central Nervous System (CNS)
  - Peripheral Nervous System (PNS)

### Cognitive Bases

- Definition of cognition
- Relationship between cognition and language
- Information processing
- Metacognition

### Social Bases

- Infant – Caregiver Attachment
- Infant – Caregiver Interaction
- Imitation and Reinforcement

## Key Terms

|                 |                 |                             |               |
|-----------------|-----------------|-----------------------------|---------------|
| Communication   | Nonlinguistics  | Syntax                      | Metacognition |
| Language        | Metalinguistics | Morphology                  | ZPD           |
| Referents       | Phonotactic     | Pragmatics                  |               |
| Speech          | Phonology       | Strong cognition hypothesis |               |
| Paralinguistics | Semantics       | Weak cognition hypothesis   |               |

## Topics for Discussion

1. In what ways does human communication compare and contrast with animal communication?
2. What evidence is available to support the importance of infant – adult interaction and its impact on language development and eventual academic performance? How might this interaction differ by culture and socio-economic status?
3. In what ways would a disorder in one aspect of language (i.e., semantics) impact the other aspects?
4. How might an understanding of Vygotsky's zone of proximal development apply to how a mother scaffolds her young child's learning?

## Learning Activities

1. Present the class with a number of non-words. Ask students in groups to work out how to say the words and judge if they can occur in English. Permissible non-words might include: spode, bloot, endine, batorming, figsaly, droogle. Not permissible non-words might include: sroke, ngeeve, vladick, zhump, etsa, soosd. Ask students to give reasons for their judgments.
2. Present students with video clips of other cultures communicating with the sound turned off. Discuss how body language, proxemics, and gesture vary between cultures.
3. Present this sentence and ask students to vary stress to change the meaning at least four ways: "The girl in green was very naughty."
4. Ask students individually to write down as many words as they can think of in one minute in the category "food." When they have completed this task, have students share their list with their neighbor, noting words in common and strategies they used to recall the words (categories, etc.). In small groups, have students look at the lists and sort the foods into superordinate categories (e.g. junk food, breakfast, fruits and vegetables). Ask students how they could re-categorize their lists (e.g., colors, fat content, where you buy it).
5. Present students with these phrases (or others you create) and ask them to make several novel sentences from each set.

|                             |                            |                     |                   |                    |
|-----------------------------|----------------------------|---------------------|-------------------|--------------------|
| <i>the girl the boy saw</i> | <i>last week a gorilla</i> | <i>when walking</i> | <i>laughed at</i> | <i>the hippo</i>   |
| <i>While</i>                | <i>sat quietly</i>         | <i>big Bobby</i>    | <i>tiny Tim</i>   | <i>was running</i> |

Discuss the variety of sentences created and then ask students to compare with their classmates. How many sentences a child of two and a half years with a 300 word vocabulary be able to create? *(Note: There are commercially available sets of magnets with words and phrases that can be used for this activity.)*

6. Ask students to find the free (root) and bound (affix) morphemes in the following words: Hippopotamus (1 free), redesign (1 bound, 1 free), blessed (1 free, 1 bound), dentistry (1 free, 2 bound), calculation (1 free, 1 bound), photographer (2 free, 1 bound). Common errors will be counting syllables instead of morphemes and breaking what appears to be a compound word into two.
7. Divide students into groups of three. Assign each student one of the following roles without letting the other members know what the roles are: One person is assigned the role of explaining what they did on the weekend, another is assigned the role of interrupting the other by saying, "What? I don't understand." or "I'm sorry." The third group member is the observer and should be prepared to report back to the others (and the whole group if you prefer) on the success of the communication within the group. Allow students to role play for 2 minutes and then ask the groups to discuss the process. Reassign the roles within the group. One person has to describe the classroom without using any nouns. The second person is to participate as a listener and ask questions and respond naturally. The observer should be prepared to report on the interaction. Let the role play run for about two minutes and then ask the groups to discuss the process. Lead a class discussion about the exercise focusing on their feelings, frustrations, and the techniques they used to repair and indicate breakdown.
8. Provide the class with a printed text of a famous speech or document, and have them "translate" it into "motherese." Discuss how they decided which elements to maintain and which were omitted.

## **Exam Questions**

### ***Multiple Choice***

1. Which of the following is the best example of an extralinguistic element of communication?
  - a. phonemic code
  - b. syntactic rules
  - c. speech code
  - d. pitch and intonation
2. Which statement is true of language?
  - a. it is unique to each person in the language community
  - b. it is largely genetically predetermined
  - c. it is the oral expression of underlying rules
  - d. it is rule based allowing for infinite number of utterances
3. Which term refers to “sounds that create meaningful differences”?
  - a. phonemes
  - b. referents
  - c. phonetics
  - d. vowels
4. The sentence, “The cat answers the phone.”, is a violation of what aspect of language?
  - a. propositional meaning
  - b. figurative language
  - c. syntax
  - d. pragmatics

### ***Multiple Choice Key***

1. d.
2. d.
3. a.
4. a.

### ***Short Answer/ Essay***

1. List three extralinguistic elements and give examples of each.
2. Describe the five basic components of language and give an example of each.
3. Explain the morphological rule for plural used in the English language.
4. What is meant by communicative competence?
5. Explain to a lay person the difference between speech and language.
6. How does consonant production contrast with vowel production?
7. Describe the roles of the CNS and PNS in speech production.
8. Describe Piaget's four stages of cognitive development and the influences of each stage on language

development.

9. Why are metalinguistic skills important for successful language development?

**Short Answer Key**

1. Paralinguistics (stress, pitch, intonation), Nonlinguistics (facial expressions, eye contact, gestures, body language or proxemics)
2. (a) Phonology - the rules governing the organization of the phonemes in a language (e.g., minimal pairs), (b) Syntax - set of rules that govern how words are to be sequenced in utterances and how the words in an utterance are related, (c) Morphology - free and bound morphemes (e.g., -ed or -ing), (d) Semantics - lexicon, ambiguous statements, figurative meanings such as metaphors, similes, proverbs, and idioms, (e) Pragmatics - discourse, narrative, fluency, cohesion, presupposition.
3. English uses allomorphs, or a variation of a morpheme that does not alter the meaning of the original morpheme, to mark plurals (/s/, /z/, /es/, /ez/).
4. Children are sensitive to the communicative competence of others. Children adjust their social interactions to take into account their communication abilities relative to those of others.
5. Speech is a motor act of producing vocalizations while language is a learned convention of symbols (code) to stand for referents agreed upon by a community that uses specific rules to convey messages between that community.
6. Vowels: little vocal tract constriction, voiced, acoustically intense, more sonority, syllable nuclei (content). Consonants: varying vocal tract constriction, both voice and unvoiced, acoustically less intense, less sonority, nuclei borders (frame).
7. The PNS is made up of 12 pairs of cranial nerves and 31 pairs of spinal nerves. Many of the nerves contain both sensory fibers (which travel to the CNS and provide it with information) and motor fibers (which transmit commands from the CNS to various parts of the body). These nerves carry the command signals originating in the CNS to the specific muscles of speech production that they innervate.
8. Sensorimotor (0-2 years) - obtains information about the world through reflexive sensorimotor behaviors, babbling begins, walking, and first words.  
Preoperational (2-7 years) - preconceptual (difficult with sub and supra classifications, over- and underextends word meaning) and intuitive (though guided by perceptions, poor conversational skills, and egocentric).  
Concrete Operations (7-11/12 years) - classification skills, greater conversational skills, logical causality, and reasoning of concrete operations.  
Formal Operations - uses hypothetical, predispositional reasoning, and abstract thought  
As children progress through the stages, they acquire the necessary cognitive operations that lead to the development of successively higher levels of language. Piaget, therefore, believes that thought precedes language. Language use is a reflection of underlying cognitive skills.
9. Metalinguistic skills refer to the ability to use language to think about or talk about language. Metalinguistic skills helps us monitor whether or not our messages are understood and to consciously decide how to clarify them.

**True/False**

1. The symbols used in the English language are mutually agreed upon but arbitrary.
2. The melodic components of speech are often referred to as subsegmental devices.
3. Proxemics means body language.
4. Nonlinguistic behaviors are not universal and vary by culture.
5. Children must learn the phonotactic rules for combining phonemes.
6. Lexicon, or vocabulary, is a synonym for the semantic component of language.
7. A basic syntactic rule in English is the object + subject + verb sequence.
8. A free morpheme can also be called an affix.
9. Unlike the other aspects of language, pragmatics are rule bound.
10. Children who have difficulty with the auditory-oral system usually find the visual-graphic system easier to use.
11. Fluent reading requires decoding of letters and words, use of narrative knowledge, and semantic-syntactic information.
12. American Sign Language is not a true language.

**True/False Key**

1. True
2. False
3. False
4. True
5. True
6. False
7. False
8. False
9. True
10. False
11. True
12. False

**Supplemental Materials*****Books and Articles***

Hart, B & Risely, T.R. (1995). *Meaningful differences in the everyday experience of young American children.*

Brookes Publishing.

Lintott, M., & Hanen Centre. (2007). *You make the difference: Parent-child interaction program*. Toronto, ON: Hanen Centre.

### **Videos**

*Let's Talk About It*, in the series *the Whole Child*. A series on typical development of child language. <http://www.pbs.org/wholechild/parents/talk.html>

*Syllable from Sound: The Child's Brain*, in the series *Secret Life of the Brain*. A PBS series on typical development from conception through aging. <http://www.pbs.org/wnet/brain/>

### **Weblinks**

The American Speech Language Hearing Association (ASHA) - Information for the public on normal speech and language development. <http://www.asha.org/public/speech/development/>

National Institute on Deafness and Other Communication Disorders (NIDCD) - Information on normal speech, language and developmental milestones. <http://www.nidcd.nih.gov/health/voice/speechandlanguage.html>



