

Chapter 1 – Language and Verbal Behavior

ASHA Standard Addressed by the Content of Chapter 1

Standard III – B “The applicant must demonstrate knowledge of basic human communication. . . including. . . psychological. . . developmental, and linguistic. . . bases.”

Outline

- I. Two Approaches to the Study of Language: Rationalism versus Empiricism
 - A. Rationalism: the belief that reason is the source of knowledge
 - 1. Statements are accepted as valid if they are consistent with the rules of logic and reasoning.
 - 2. The most influential school of thought in linguistics, the study of language, is rationalist in nature.
 - 3. Linguists are rationalists who generally believe language is an innate (e.g., humans are born with it) mental system or structure (associated with the ideas of Chomsky).
 - B. Empiricism: the belief that sensory experience is the source of knowledge
 - 1. Empiricists demand that rational propositions be put to empirical tests before accepted or rejected.
 - 2. Empirical scientists arrange conditions – called *scientific experimentation* – under which the truth value of statements can be tested.
 - 3. Behavioral scientists are empiricists who believe that social interaction is more important than innate mechanisms in teaching and learning language; they prefer the term *verbal behavior*, which is observable and modifiable, to *language*, which implies an unobservable mental structure (associated with the ideas of Skinner).
- II. Linguistic Analysis of Language
 - A. Linguistic definition of language assumes:
 - 1. Language is a set of symbols or codes that represents ideas, events, and experiences.
 - 2. This system is arbitrary.
 - 3. Language is rule-governed.
 - B. Linguists describe language in terms of its components, which are the:
 - 1. Phonologic component
 - 2. Semantic component
 - 3. Syntactic component
 - 4. Morphologic component
 - 5. Pragmatic component
 - C. Phonologic Component
 - 1. Definitions
 - a) Speech – the production of oral language
 - b) Phonology – the study of the sound system of a language

- c) Phone – any sound the vocal tract can make
 - d) Phoneme – a phone that conveys meaning within a language
 - e) Allophone – a varied production of a phoneme that is within the “family” of sounds represented by that phoneme
 - f) Phonological processes – sound error patterns children display when acquiring the sound system of their language (this is the most clinically useful definition; there are others!)
2. The phonologic component of language is more appropriately addressed in courses on articulation and phonological disorders.
- D. Semantic Component
1. Semantics – The study of the meaning of words and word combinations in a language
 2. Semantic component – the element of meaning in language
 3. Lexicon or vocabulary – the number of words a child produces and understands
 4. Referential meaning – the simple, concrete meaning of a word that points to (refers to) an object, person, or event
 5. Connotative meaning – the emotional meaning a word suggests
 6. Relational meaning – there are some words that express relation between objects and events (e.g., prepositions)
 7. Inferential meaning – meaning that is not explicitly stated but deduced from what is said
 8. Figurative meaning – meaning that is different from the meaning that the words convey
 - a) Idioms – a commonly used form of figurative language (e.g., “It’s raining cats and dogs”)
 - b) Irony – the implied meaning is opposite of what the words themselves suggest (e.g., “Oh, that’s *so* nice!” uttered after a car has cut dangerously close to you in traffic)
 - c) Metaphors – make comparisons between two or more objects, which are unlike each other (e.g., “The moon was a ghostly galleon. . .”)
 - d) Similies – function the same as metaphors, but include the words *like* or *as* (e.g., “My love is like a red, red rose.”)
 9. Multiple meaning – the same word, phrase, or sentence may convey different meanings (e.g., the word *bat*)
 10. Homonyms – words that are identical in pronunciation but convey different meanings; sometimes spelled the same, sometimes not (e.g., *saw* as in *I saw the movie last night* and *saw* as in *He used a circular saw to cut wood or night and knight*)
 11. Lexical relationships
 - a) Synonyms – different words that convey the same meaning (e.g., *little/small/tiny*)
 - b) Antonyms – pairs of words that convey opposite meaning (e.g., *big/little, happy/sad*)

12. Semantic relations – contrasting units of meaning that are expressed in different forms of words, phrases, and sentences; a way of classifying meanings that children seem to acquire (e.g., a phrase such as *my kitty* indicates the semantic relation of possession)

13. Linguists and cognitive specialist believe that mastering semantic concepts requires the ability to categorize; this is why many tests designed to assess a child's language include items to check categorization.

E. Syntactic Component

1. Syntax – a collection of rules about word combinations and sentence structures within a language

2. Syntactic component – the part of language that refers to syntactic rules

3. Chomsky's theory of transformational grammar posits that universal syntactic rules that apply to all language are innately given, that is, that children know the rules of universal grammar from birth.

4. A language-learner can generate an infinite number of phrases or sentences when a particular construction has been learned.

F. Morphologic Component

1. Morphology – the study of word structures

2. Morphologic components – the smallest elements of grammar, called morphemes

3. Morphemes – the smallest units of meaning within a language

a) Free morpheme – conveys meaning standing alone and cannot be broken down into smaller parts (*root* or *base* word)

b) Bound morpheme – those suffixes and prefixes attached to a root word

i. Derivational bound morphemes – bound morphemes that create entirely new words from root words

ii. Inflectional bound morphemes – bound morphemes that add to the meaning of the root word, but do not create a new word

4. Allomorphs – Slight variations of morphemes (e.g., the plural *-s* in *cups*, *bags*, and *oranges*)

G. Pragmatic Component

1. Pragmatics – the study of language production in social contexts

2. The pragmatic aspects of language can be described as pragmatic skills, or conversational skills.

3. Verbal pragmatic skills; conversational *discourse*

a) Initiating conversation

b) Taking turns

c) Maintaining a topic

d) Shifting topics

e) Requesting conversational repair

f) Responding to conversational repair requests

g) Producing language appropriate to context and situation

h) Narrating experiences and events

- i. Personal narratives – require children to relate personal experiences
 - ii. Scripts – written or verbal descriptions of routine events
 - iii. Fictional narratives – require children to tell a story
 - 4. Nonverbal pragmatic language skills
 - a) Maintenance of eye contact
 - b) Physical distance (*proxemics*)
 - c) Gestures
 - d) Facial expression
- H. Comprehension and Production; two modalities of language
 - 1. Comprehension, also called receptive language – inferred when listeners pay attention and understand what is expressed either verbally or nonverbally
 - 2. Production, also called expressive language – speaking or communicating nonverbally

III. Linguistic Explanations of Language and Language Learning (Chomsky, 1957, 1965, 1982, 1999)

- A. Universal grammar – A finite set of rules that applies to all languages that allow for an infinite and varied set of sentences
- B. Surface structure (S-structure) – the actual order of words in a spoken or written sentence
- C. Deep structure (D-structure) – the underlying meaning the sentence conveys
- D. Grammatical transformation – relates the deep and surface structures and yields different forms of sentence (e.g., from a declarative to an interrogative to a passive to a negative sentence form)
- E. Transformational generative theory of grammar – Chomsky’s belief that, through knowledge of the rules of grammar and use of transformations, language-users generate countless varieties of sentences
- F. Language Acquisition Device (LAD) – A hypothetical entity believed to be inborn in humans, containing innate knowledge of universal grammar
- G. Assumptions underlying the linguistic explanation of language acquisition
 - 1. Language is too complex a concept for children to learn as they do any other skill.
 - 2. Parents do not typically teach language explicitly to their children.
 - 3. Language is acquired too rapidly by children to be learned.
 - 4. Universal aspects of grammar defy learning.
 - 5. Language is acquired in much the same manner by children in all different societies and cultures.
- H. Empirical critique of the linguistic viewpoint
 - 1. No empirical evidence for any of the assumptions upon which the linguistic theory of language acquisition is based.
 - 2. It is merely assumed that language is too complex to be learned.
 - 3. It is merely assumed that language is acquired too rapidly to be learned.
 - 4. Universal features of language are not evidence

IV. Analysis of Verbal Behavior (Skinner, 1957, 1986)

- A. Verbal behavior – “behavior reinforced through the mediation of other persons” (Skinner, 1957, p. 2)
- B. Three causes impel people to behave verbally
 - 1. Internal states – for example, thirst, hunger, pain
 - 2. External stimuli – social and environmental
 - 3. Prior verbal behavior – what is said is the result of what was previously said
- C. Language is analyzed in terms of functional units of verbal behavior, not in terms of language components or structures.
 - 1. Mands – demands, requests, commands
 - 2. Tacts – a group of verbal responses whose cause is a state of affairs in the environment and which are reinforced socially (descriptions or comments)
 - 3. Echoics – a verbal response that re-creates its own causal stimulus (an imitated response)
 - 4. Intraverbals – speech caused by speakers’ own prior speech
 - 5. Autoclitics – secondary verbal behaviors that describe or comment on certain aspects of primary verbal behavior (Skinner’s analysis of grammar)
 - 6. Textuals – a class of verbal behaviors controlled by printed stimuli or writing
- D. Meaning in the behavioral analysis is defined as a relation between a controlling variable (cause) and a verbal production.
- E. Relevance of Skinner’s analysis of verbal behavior to speech-language pathology
 - 1. It is empirical.
 - 2. It provides a conceptualization of language as observable skills clinicians can measure and treat.
 - 3. It avoids theoretical speculation, which is not clinically useful.
 - 4. It is consistent with methods of treatment used in children with language disorders.

V. Additional Concepts

- A. Language and Communication
 - 1. Language – may be thought of either as a mental system of rules or as form of social behavior
 - 2. Communication – exchange of information between two or more persons in verbal, gestural, written, or other forms
- B. Verbal and Nonverbal Communication
 - 1. Verbal communication – oral production of language
 - 2. Nonverbal communication – signs, gestures, and nonverbal symbols (e.g., American Sign Language, augmentative and alternative communication)