Review of Language Chapter

**Language**- a shared system for communication  
**Linguistics**- the formal academic study of language (rules and structure)  
**Psycholinguistics**- the study of language as is used and learned by people (a focus on behavior rather than structure)

**Hockett’s linguistic universals:**
1) Semanticity- language conveys meaning (exception: sounds can be paralinguistic if they convey meaning)
2) Arbitrariness- there is no inherent connection between the units (sounds, words) used in language and the meaning referred to by those words. (exception: onomatopoeia)
3) Flexibility of symbols- because of the connection between symbol and meaning is arbitrary, we can change those connections and invent new ones. (exception: American sign language)
4) Naming- we assign names to all the objects in our environment, to all the feelings and emotions we experience, to all the ideas and concepts we conceive of.
5) Displacement- the ability to talk about something other than the present moment via verb conjugation.
6) Productivity- language is a productive and inherently novel activity that we generate sentences rather than repeat them.
7) Vocal-auditory channel- all linguistic communication is vocal-auditory (exception: written and sign).
8) Broadcast transmission and directional reception- language is transmitted from a source in all directions and can be received by anyone in hearing range.
9) Transitoriness- there is rapid fading of the acoustic message.
10) Interchangeability- all humans can receive and transmit the same message
11) Total feedback- you can hear yourself speak and therefore can adjust speech as you are producing it.
12) Specialization- sounds of language are specialized to convey meaning. That is their primary raison d’etre.
13) Discreteness- language only uses a small number of discrete ranges on the dimensions of duration and loudness to convey meaning.
14) Duality of patterning- phonemes that have no inherent meaning can be combined to produce and recombined to create meaning.
15) Cultural or traditional transmission- acquired via exposure to surrounding ppl.

**Animal language?** Chimps can produce arbitrary symbols to communicated but there is not flexibility or naming. In general no animal languages are known about today that are “genuine” other than human language.

**Skinner vs Chomsky debate**- innate grammar learning ability and productivity vs learning.

**Why study language?** It teaches us about human cognition. Abstraction, storage in memory, influences perception, influence how we think.

**Linguistic relativity (Worf)**- the language spoken in one’s culture affects how one perceived the world. E.g. Dani tribe colour naming.

**Grammar**- is the complete set of rules that will generate or produce all the acceptable sentences and will not generate any unacceptable, ill-formed sentences.

**Levels of Language analysis**- Phonology (sounds), Syntax (rules), and Semantics (meaning). Miller (a psycholinguist) also proposed Conceptual and Belief levels.
Phonemes are invariant - we use context to make meaning of them. Many studies show that we are better at understanding words in context (Pollack & Pickett, 1964) and when they are grammatical (Rapp & Goldrick, 2000). A variety of distinct language processes therefore operate simultaneously.

Categorical perception - all sounds falling within a set of boundaries are perceived as the same, despite physical differences among them (invariance). Invariance is affected by coarticulation which is when more than one sound is articulated at the same time.

Distinction b/w competence and performance (Chomsky) - competence is the internalized knowledge of language and its rule that fully fluent speakers of a language have. Performance is the actual language behavior. Chomsky argues that we should study competence. Psycholinguistics disagrees.

Linguistic intuitions - aspects of language that users know implicitly without being able to state the rules. There are four: knowing what is grammatical, understanding grammatical relations, understanding sentence relationships, & ability to identify ambiguity.

Phonemic competence - the extensive knowledge of the rules of permissible English sounds and combinations.

How do we describe the universal aspects of syntactic knowledge?

Left-to-right grammar - the idea that grammar specifies the probability that one word can follow another in language.

Problems with left-to-right grammar - 1) it would take too long to learn the probability of one work following another 2) proby rules do not sufficiently explain language 3) spoonerisms demonstrate that sentences are not generated one word at a time.

Phrase structure grammar - a set of re-write rules to break down an utterance into its parts. E.g. Noun phrase with determinant, adjective, & noun. Verb phrase has a verb and noun phrase.

Strengths of Phrase Structure Grammar - 1) rules define grammaticality 2) sentences are planned hierarchically so can explain spoonerisms 3) can account for grammatical relations between words and sentences.

Problems with phrase structure grammar - 1) cannot account for surface structure ambiguity 2) cannot account for sentence relations (when the rules change but the meaning stays the same) 3) does not take meaning into account.

Chomsky’s Transformational Grammar - there are two levels. 1) surface structure - outward appearance of the utterance that can be handled by traditional phrase structure. 2) Deep structure - the underlying meaning of utterance. Transformational rules turn one kind of structure into the other.

Support for transformational grammar - transformations take longer to do; derivational complexity hypothesis (Miller & McKeen, 1964). Subjects pay attention to deep structure and could identify semantic changes (Sachs, 1967).

Criticisms of transformation grammar - there is a confound in that derivationally more complex sentences also tend to be longer than simple ones.

The cognitive role of syntax - how do psycholinguists study syntax? They have found that automatic processing influences use of syntax. They also have found that we tailor our syntax use based on the accessibility of information we wish to convey.

Semantics

Mental lexicon - the mental dictionary of words and their meanings

Morphemes - are the smallest units of language that have meaning. There are free morphemes and bound morphemes.

Case grammar - the semantic analysis of sentences involves figuring out what semantic role is being played by each word or concept in the sentence and computing sentence meaning based on those semantic roles.

Evidence for case grammar - garden path sentences take longer to process.