**CLASS 2: Human language cf. animal communication systems**

Hockett’s design features of human languages

Minding the gap between behavior and knowledge

Social underpinnings of language

Language structure and programming

The recursive power of syntax

**Communication systems of bees, vervet monkeys, chimps, baboons, etc.** p. 13

****

What’s missing about “language” in vervets’ warning calls?



***Jane Goodall ‘s TED on studying chimps in Tanzania:***[*https://www.ted.com/talks/jane\_goodall\_what\_separates\_us\_from\_chimpanzees?referrer=playlist-ancient\_clues*](https://www.ted.com/talks/jane_goodall_what_separates_us_from_chimpanzees?referrer=playlist-ancient_clues)

**1.** Why teach chimps “language”?

**2.** How and where do chimps USE “language”?

**3.** In what way is the learning environment important? cf. Were hands made for piano playing?

<https://www.youtube.com/watch?v=1mNMe28rNuc>

**4.** What is it about human language that’s so different from what animals do when they communicate? Do we have a “communicative urge”?

**5.** What’s the point of pointing, as when babies point? Do chimps point or respond to helpful pointing?

**6.** What’s the critical feature of “joint attention”?

7**.** What’s the evidence of **independent** evolution of vocal skills in diverse animals?

8. What **feature**s **of** sound**-**making and sound**-**learning of humans and birds, and humans and chimps **are shared**? **What is the range of** chimps**’** mimicking **of** vocalizations? What is songbirds’ range of vocalizations and mimicking?

1. Are the characteristics of chimps‘ sound**-**making properly defined as affective, innate and inflexible?
2. Why do babies babble before they speak?
3. Which feature of human language make-up didn’t Hockett get right?

**SOME ANSWERS:**

**Skill-oriented communication vs. language multifunctionality: THEY DON’T THINK LIKE US > > “knowledge” vs. “behavior”**

Social intelligence of **apes** grows when taught

signing and understanding vs. vocalizing and understanding

signing and understanding vs. producing “language”

communicative potential for language generated by training vs. spontaneous communication in the wild

So, why teach chimps?!

The matter of the **environment**: Dogs’ domestication vs. chimps

Social cognition of dogs vs. that of chimps

Conventional communication of **bees** and its limits

**Prairie dogs**’ alarm calls communication

**Vocal learning** of humans cf. song-birds

Learning vs. knowing sounds (cognitively) vs. using sounds (affectively)

**Vocal learning and the origin of speech** when cognitively ready/ becoming human:

Sounds get to be controlled and learned

Infants’ babbling happens in relation to the environment vs. rhesus and Japanese macaques’ sound endowment that is biological

Articulating by **neural c**ontrol over complex movements to produce speech

Cognitively translating air vibrations caused by language sounds to hearing

Manipulating symbols

SPEAKING/ USING LANGUAGE designed so that…

arbitrary/ **conventional**

**efficient** thanks to its patterning **duality**, **compositionality** and **creativity**

capable of **displacement**

**SEDIVY 2.1, exs 1-3** <https://learninglink.oup.com/access/sedivy-2e-student-resources#tag_chapter-03>

Describe the kind of evidence needed to determine what features of Hockett’s list of human language characteristics are present:

### 1: Your dog is able to obey simple commands such as sit, heel, stay, down and roll over.

### 2: Your cat is able to persuade you to feed her by circling her empty dish and meowing loudly.

### 3: According to King and Janik (2013), dolphins are able to invent or learn new “signature” whistles that are used to identify individual dolphins. When the researchers played recordings of signature whistles, dolphins responded to their own signature whistles by calling back with the same sounds, but did not respond to whistles that were not their own.

### 4: Animal researcher Con Slobodchikoff has argued that prairie dogs have the most complex communication system that has so far been observed in animals. The following video describes his findings. Based on the information in this video, discuss which of Hockett’s features seem to apply to prairie dog communication. <http://www.youtube.com/watch?v=c_hUIEBwlEo>