

Hockett, C. (1960). Fifteen "design-features" of human language:

1. Vocal-auditory channel: sounds emitted from the mouth and perceived by the auditory system.
2. Rapid fading (transitoriness): Signal last a short time. This is true of all systems involving sound.
3. Interchangeability: All utterances that are understood can be produced.
4. Total feedback: The sender of a message also perceives the message. That is, you hear what you say.
5. Specialization: The signal produced is specialized for communication and is not the side effect of some other behavior.
6. Semanticity: There is a fixed relationship between a signal and a meaning.
7. Arbitrariness: There is an arbitrary relationship between a signal and its meaning. That is, the signal is related to the meaning by convention or by instinct but has no inherent relationship with the meaning.
8. Discreteness: Language can be said to be built up from discrete units (e.g., phonemes in human language). Exchanging such discrete units causes a change in the meaning of a signal. This is an abrupt change, rather than a continuous change of meaning.
9. Displacement: Communicating about things or events that are distant in time or space.
10. Productivity: Language is an open system. We can produce potentially an infinite number of different messages by combining the elements differently.
11. Cultural transmission: Each generation needs to learn the system of communication from the preceding generation.
12. Duality of patterning: Large numbers of meaningful signals (e.g., morphemes or words) produced from a small number of meaningless units (e.g., phonemes).
13. Prevarication: Linguistic messages can be false, deceptive, or meaningless.
14. Reflexiveness: In a language, one can communicate about communication.
15. Learnability: A speaker of a language can learn another language.

	Crickets	Bee dancing	Western Meadowlark	Gibbon calls	Signing apes	Language
Vocal-auditory	Auditory only	No	Yes	Yes	No	Yes
Rapid fading	Yes, repeated	?	Yes	Yes, repeated	Yes	Yes
Interchangeability	Limited	Limited	?	Yes	Yes	Yes
Feedback	Yes	?	Yes	Yes	No	Yes
Specialization	Yes?	?	Yes	Yes	Yes	Yes
Semanticity	No?	Yes	In part	Yes	Yes	Yes
Arbitrariness	?	No	If semantic, yes	Yes	Largely yes	Yes
Discreteness	In part	No	?	In part	Yes	Yes
Displacement		Yes, always	?	No	Yes	Yes, often
Productivity	No	Yes	?	No	Debatable	Yes
Cultural transmission	No?	Probably not	?	?	Limited	Yes
Duality of patterning	?	No	?	[Cotton-top tamarin: Yes]	Yes	Yes
Prevarication					Yes	Yes
Reflexiveness					Debatable	Yes
Learnability					Yes	Yes

Hockett, C., (1960) "The origin of speech", in Wang, W.S-Y. (ed.) *Human Communication: Language and its Psychobiological Bases*, Scientific American, 1982 (Paper originally published in Scientific American, 1960).

REVIEW QUESTIONS:

1. What is sound symbolism? Provide an example from English.
2. Why are the Vervet alarm calls interesting? Which of the above design features characterize these calls?
3. What are the most important characteristics of human language, i.e., which of the above characteristics are most identified with human language and least identified with other animal communication systems.
4. Provide a language example of each of the design features to illustrate your understanding of them. What are some human language counter-examples to the first 5 of the 15 features?