

# Why is Human Language special?

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So, last week we were exploring the things that make the human language so special and unique compared to the language we see other animals use.

We are going to continue with that this week

## What makes Human Language so special?

### Duality of patterning/Double articulation

We need to first note how we are able to **create meaningful units (words) from tiny meaningless units (sounds)**, which is the unique creativity present in human language. In linguistics, this is known as the duality of patterning or double articulation.

This is definitely a distinctive characteristic of human language.

We should also note that arbitrariness does not mean randomness. A human who knows English would never dream of saying something like

A see tree I big can beautiful and

Human languages organize and combine sounds and arrange words to create infinite possibilities. A conveniently small number of meaningless elements can be combined to form a large number of meaningful elements.

From a finite set of sound and words, a large number of words and infinite number of sentences can be created. **This is the creativity aspect of human languages**, where we are able to form new words and sounds as well as sentences which we might not have been explicitly told that they exist or we might not have heard them before.

For example, if we are given Eight letters: **t, g, n, r, a s, l, i**

We can form a bunch of sounds with each of those set of letters like: Starling → starting → staring → string → sting → sing → sin → in → i

Similarly, one root + multiple affixes can create a large number of words

We can describe and understand it with the following example -

**Hindi word 'chal' -- how many words can you make from this word? (cha = ca)**  
*chal, caal, calo, calna, cala-crita, calan, calta, calti, calaan, calenge, calunga, calungi, calte, calen, cali, cala, cale, caliye, calaaiye, calvaaiye, calvaana, calvaakar, calkar, calak, caalu*

We can observe that although there are a lot of verbs but we have also created a different set of words like nouns, as well as adjectives.

**This is called duality of patterning** --> Why duality? We are operating in two different levels, that is, sounds to words or words to sounds. (*need to look into this one*)

Another aspect of creativity is that utterances or responses are not always controlled by the external happening. The same stimulus/occurrence can general multiple responses, eg: Mona Lisa (*say we go to a museum and see the painting of Mona Lisa, different people in the group might have different responses, which are guided by their emotions and how they perceive or feel things, someone might say, "Oh! That looks amazing" while someone else might say "Wow! I'm awestruck" or someone might not say anything at all, what this demonstrates is that the same stimulus (which is the painting of Mona Lisa here) can bring out different responses in humans and the response is not really a fixed thing, which is observed with animals (where say if you show food to a dog, it will start salivating and the response is always fixed)*)

This is a basic departure from Skinner and the behavioral model of the nature of language and language learning.

The way animal responses work is the can be showed with the following flowchart

stimulus -> Response -> stimulus (s -> r -> s)

So usually, there is a stimulus, to which animals as a whole respond and then that response acts as a stimulus to further responses or actions. This is what we can usually use to describe language and responses for the animal world, but when it comes to human, it is really debatable if the entire process is so mechanical as at times we might see people doing things without any sort of stimulus as well, or we can see different kinds of responses to the same stimulus.

According to Skinner's theory, following the pattern of (s → r → s) is how humans acquire language, where they hear other humans talk and then they repeat that which again helps them learn language.

However Chomsky came down heavily on Skinner and stated that the nature in which language works for animals need not be applicable for humans because the human mind is really different from the Animal mind and thus the acquiring of language should also be different and not necessarily so mechanical.

Human beings can say anything they like in context. This includes them saying the wrong thing, speaking about something that has already happened, inventing something or telling lies. There is not a fixed set of things that we can say, cause we can make an infinite number of sentences to express an infinite number of thoughts. So, we can say anything irrespective of the stimulus.

**Nature/Nurture controversy** is something that we have due to that. In this, behavioral psychologists like Skinner would argue that all things including language is a part of **nurture** or how human beings are raised and brought up and it is something they pick based on their environment. However, Chomsky would argue that language or the acquisition of language is something that is a part of our **nature** and is something that is of human essence/inherent to us and we are bound to acquire it by means of being humans.

**Book recommendation with respect to that:** *The Articulate Mammal* by Jean Aitchison

## Cultural transformation

All human beings all over the world do not speak the same language. Human language is handed down from one generation to the next. Children of Japanese parents acquire Japanese from parents/community; similarly, English/Hindi/Tamil/Bangla/Malayalam languages are acquired by the children from the immediate surroundings or environment. So, a Bengali person who might be surrounded by people who only speak Spanish will learn Spanish and not Bengali in spite of being Bengali.

Figure out the apparent contradiction - "**Language is universal and particular**" :)

Human Language on one hand is **universal** given the fact that all human languages have the same set of characteristic features which we have explored till now and we continue to explore and all human beings on earth speak at least one of those human languages.

However, at the same time, it can be **particular** because there are a number of different human languages and all humans don't really speak the same language, or are able to understand all human languages.

So human language can be really universal as well as particular at the same time.

However in case of animals - All frogs croak, all crows caw, all lions roar, all mice squeak in the same way irrespective of which part of the world they may belong to. Chinese and Indian frogs speak the same language. *(This can be debated upon because we don't really understand animal language really well yet that we might be able to understand the difference in their language or the difference in accents and such things → it is very possible but there is no evidence to show that the language of an Indian frog is different from that of the Chinese frog)*

**Exceptions in the world of animal language** - skylark → a skylark that is separated from other skylarks doesn't learn that skylark song, it just doesn't happen to acquire that *(this is still under research and there are experiments going on to understand if the song is culturally transmitted or genetically acquired)* (maybe dolphins also?)

## Displacement

Human language has the facility to refer to objects/events across time and space, which might not be related in any way to our present environment. I can talk about the past, future, about my location, about a place which is remote, a place which doesn't even exist, literally anything. We are not bound by the immediate context. Example of a sentence a human might say is -'My brother who lives in Shimla called last night and he said that the cultural fest will be held there in the June next year. I am hoping to attend it'

*(also note the deictic terms - time, place and person)*

In the above example we can see how humans are able to talk about events which are completely unrelated with the present state of that human. (The sentence talks about Shimla, a place far from us about a conversation that took place in the past about an event that is going to happen in the future → it's all over the place with respect to space and time parameters)

Now, in animal language, we can't expect animals to be able to enjoy the features of displacement and being able to talk about things which aren't directly related to their immediate surroundings. (Would also be a violation of the  $s \rightarrow r \rightarrow s$  pattern which is often used to describe animal behavior and responses)

Now, if we compare that with the language of bees (*the closest thing we can find with respect to animals talking about things which are not related to their immediate surroundings*) who dance to indicate location of nectar in terms of distance. For a bee, if it shows a round dance it means that the nectar is close to the hive, however if it waggles, it means that the nectar is far away. However, this language of bees is very limited and they can only indicate horizontal distance through it. There is no word for up because there is no flowers in clouds. Also, we can observe how it is limited to only one context which is finding food or nectar.

A bee cannot say, 'The pandemic is not yet over in India, let us go to Japan next month as it is relatively safe there now and soon it will be the cherry blossom festival and there will be lots of honey to have.'

This is because the language of animals is extremely limited as well as something that does not have the feature of displacement where as humans can talk about things which are *not* related to our present environment.

**Note:** *A lot of it is not logically conclusive. There is definitely communication between animals (eg: migratory birds, and also ants or other birds and all) however we need to note that it is not definite if that kind of communication falls under the category of language as we define it. All of it is always under more research and evaluation, before we are able to find a solid logical answer to all of it.*

Next day → Structure Dependence/Hierarchy.