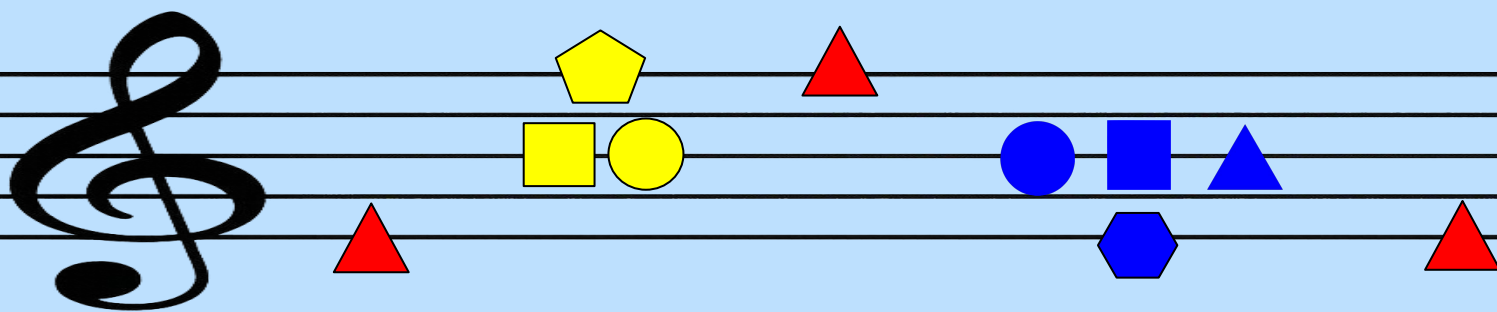


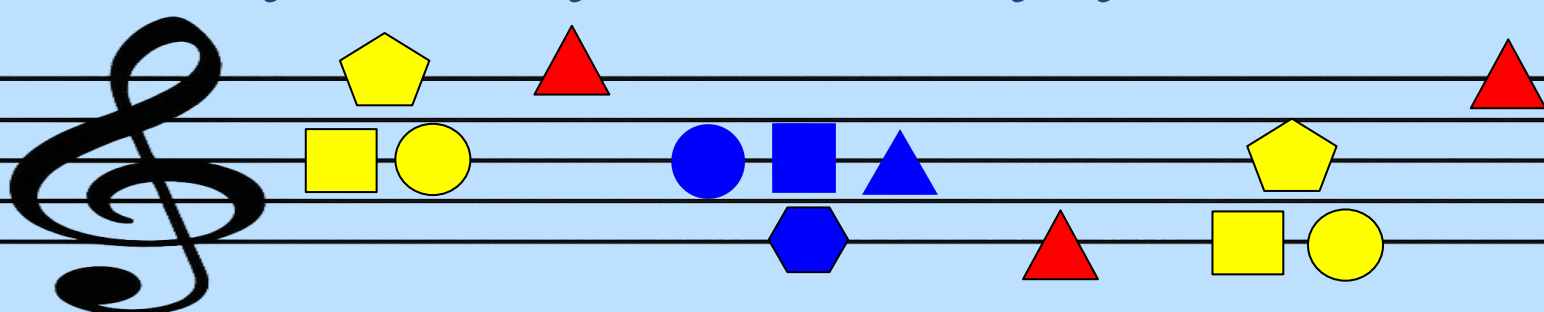
Do Whales Talk?

A common myth is that human speech has many qualities not shared in animal communication systems. So let's see if whale song is structured, produced, and used in the way that human language is

This illustrated Humpback whale song shares 4 similarities with human language:

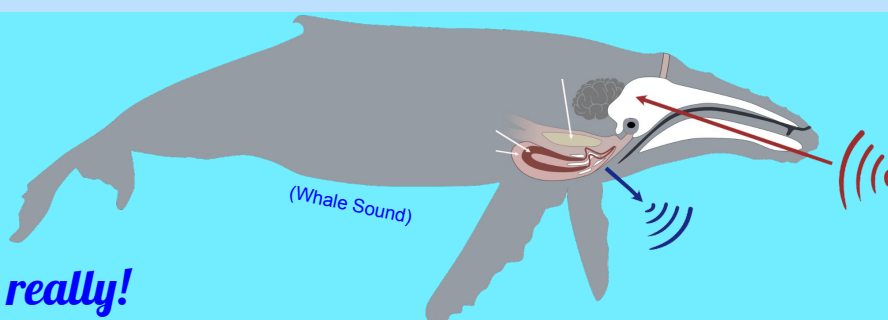


Imagine that every colored whale song segment is a word



1. Predictable sound sequences make learning much easier
2. It shows a “Zipfian distribution”: the sound sequence that occurs the most appears twice as often as the second most, thrice as often as the third, etc.
3. It follows “Zipf’s Law of Brevity”: short sequences occur much more often than long ones
4. Every group of whales has their own unique song!

Do whales produce ‘language’ in the same way that people do?



Not really!

1. Humans produce speech while exhaling by vibrating the vocal cords in the throat, producing sound through the mouth
 2. Whales don’t produce song while exhaling as they are underwater. Powerful reused air in the lungs pushes U-shaped tissue against hollow sacks, producing sound through their ‘necks’
- This allows them to produce more sounds than people and two sounds at the same time!*

While whale song shares these features with human language, music does as well, and experts believe that whale song is closer to music than language



The majority of songs are sung by males to communicate during mating season!



Is it language?

