



IS SPEECH A SPECIAL SOUND FOR THE BRAIN?

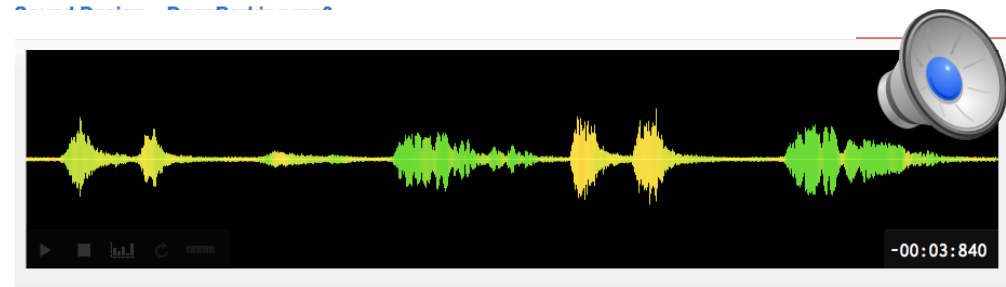
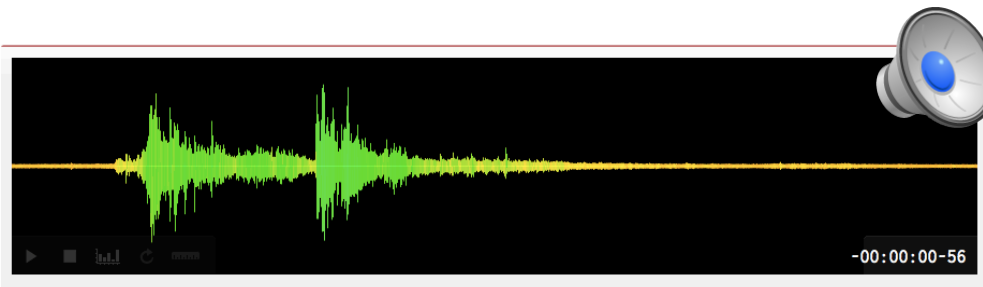
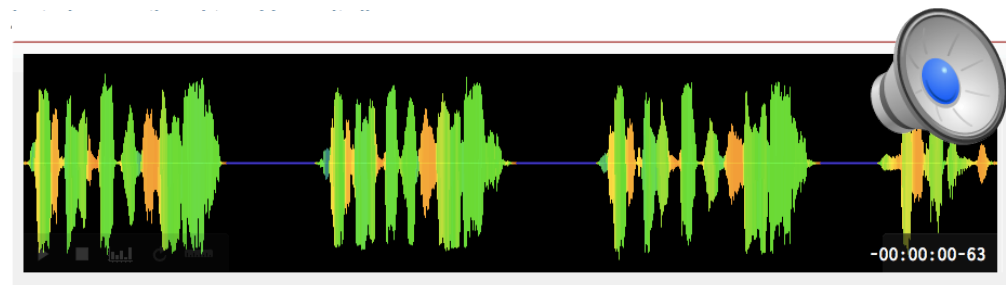
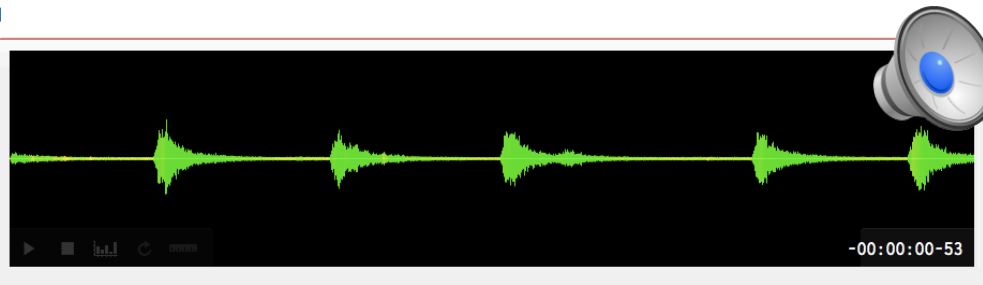
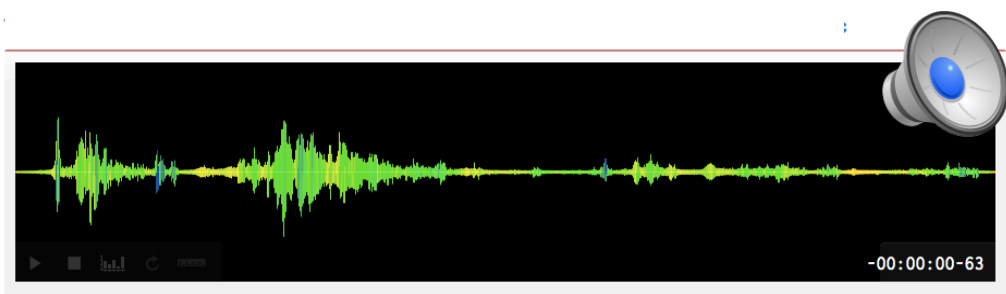
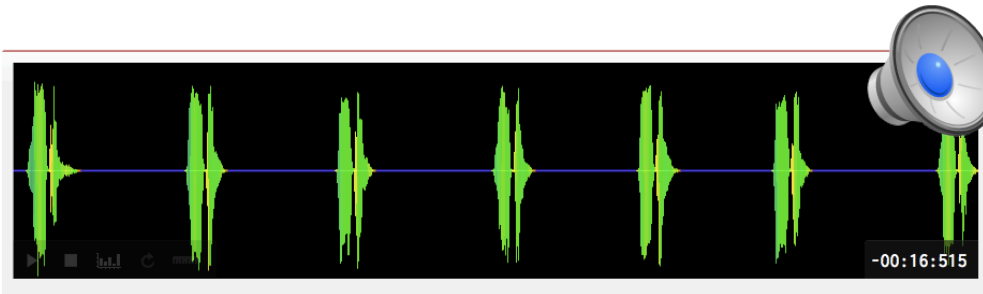
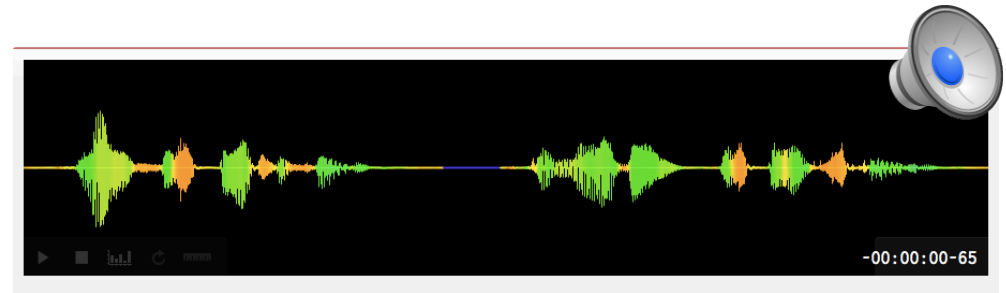
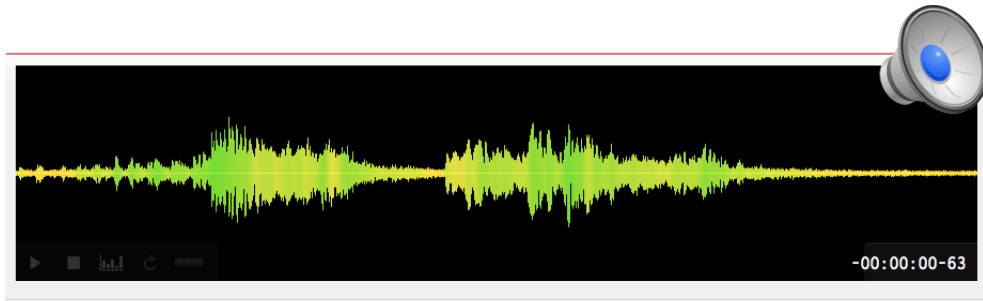
Do our brains process speech sounds differently from other sounds?



This is a **VERY** hard question

- What makes speech speech?
- This is hard to pinpoint.

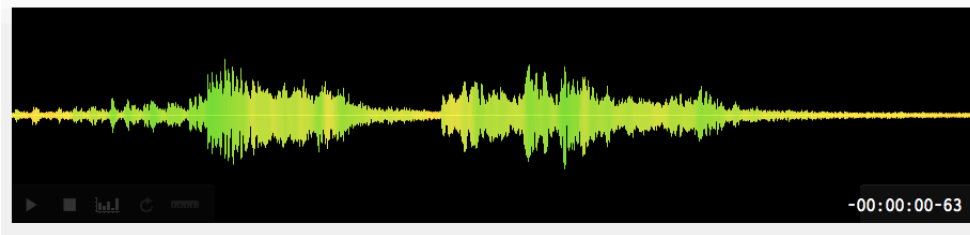
Speech or not?



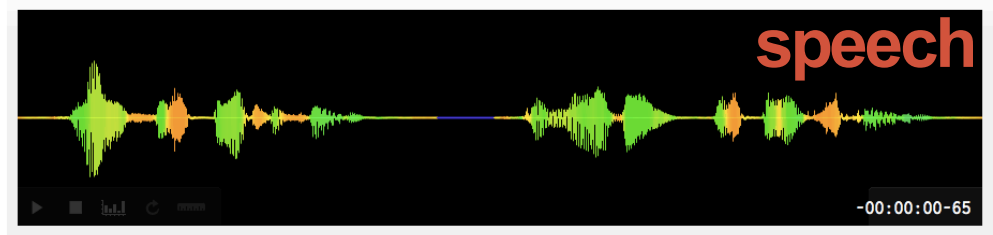
All sounds from <https://freesound.org/>

Speech or not?

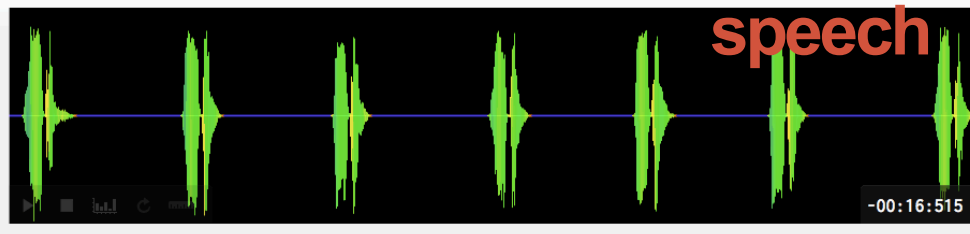
Cranes 4.wav



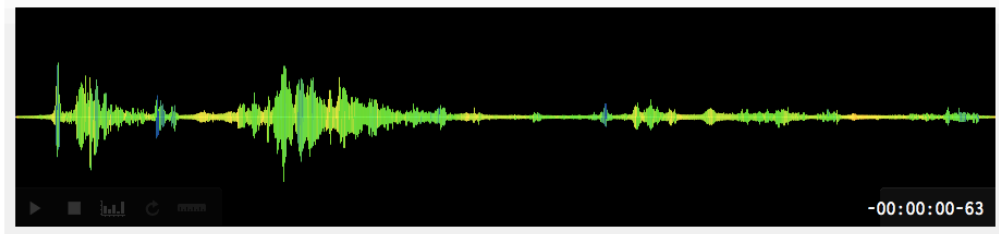
Global Village - Language Samples » Life Is Beautiful 1 (English and Afrikaans)



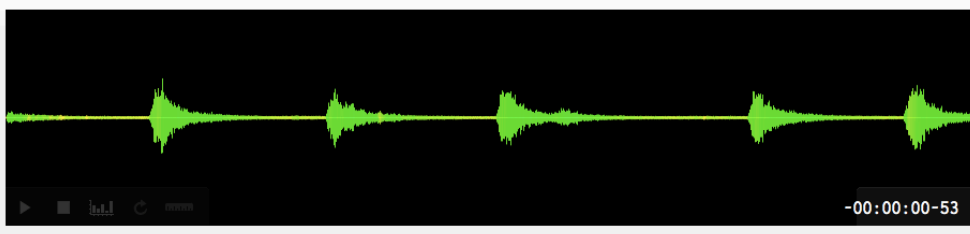
WELCOME.wav



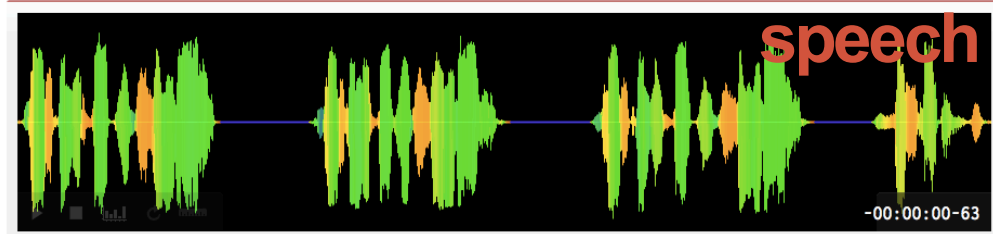
Traffic and Car Doors on Busy Wet Street » busy residential wet street january wknd traffic



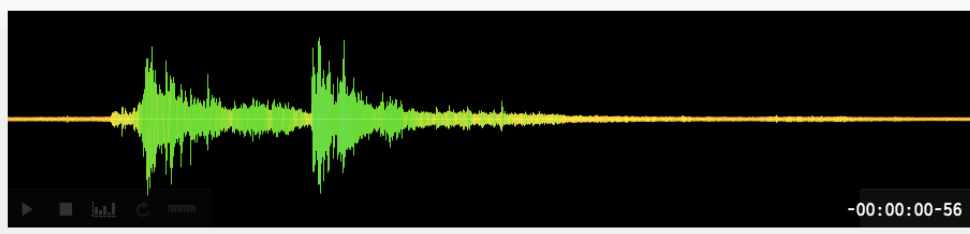
Dog Barking.m4a



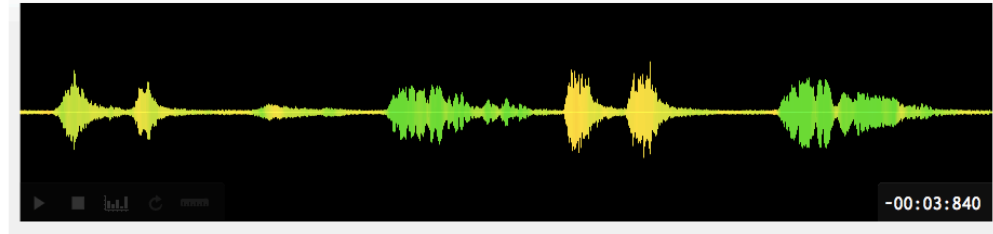
just when you thought you'd seen it all.wav



thunderbold in Paris.wav



Sound Design » DogsBarking.mp3



All sounds from <https://freesound.org/>

Do our brains process speech sounds differently from other sounds?

- In order to test this with a typical psychology approach, we'd need to devise an experiment in which
 - A. the physical properties of the stimuli (amplitude, pitch, etc.) are kept constant while
 - B. whether the stimulus is perceived as speech or not is varied
- It is very hard to remove a signal's speech-like quality without changing its physical properties.

2 approaches we can use

- Examine disorders of auditory perception
 - Does speech perception dissociate from other types of auditory perception?
- Study the perception of ambiguous stimuli that can be perceived as speech or not.
 - Sinewave speech