

Since the beginning of time nature has tried to communicate, with sounds and gestures, but what could be more frustrating than not being understood by another person? The other day I was talking to my Turkish grandfather but he had trouble understanding when we spoke. I suggest you analyse why.

When I talk to him I will emit vibrations in the air which will come to his ear but with age the ear will hear less well. Once the ear has heard, it will retransmit the data heard to the brain, which will have to decode what I have said. It will first understand that it is not Turkish but French. But there's another problem, it's hard of hearing some parts of my sentence are missing.

It's the same with a radio receiver for example, the only differences are the actors, the language and the range of the information. The receiver will have an antenna (in my story the ear) a demodulator/decoder to understand the information (as our brain would).

But what if there are two of us talking?

If we speak with the same power he won't be able to understand anything unless he is a superhero. In a transmission network this would be called "noise" but if one of the two people speaks louder, then it will be heard better and over a longer distance too.

Which begs the question, why aren't we shouting all the time to be heard?

Take your phone with your headphones and turn it up as loud as possible, would you be able to understand? The answer is no.

Poor information reception can therefore have several causes, and one of them is the lack of sample. Indeed, information can be greatly distorted if there is a lack of sample, so make sure you articulate well to your grandfather