

Stereo Sound

You can locate a sound by determining which ear heard it first.

Try this:

- Find a friend to do this exhibit with you.
- Put one end of the tube to your ear and ask your friend to tap at various places along the tube. Close your eyes and notice how hard it is to tell where the sound is coming from.
- Now put both ends of the tube to your ears. Ask your friend to tap at different places on the tube. Close your eyes and notice that you can tell quite accurately where the sound is coming from.

What's going on?

Whenever you hear a sound with both ears, special cells in your brain help you decide where that sound is coming from.

If the sound reaches your right ear first, the cells suppress it when it reaches your left ear, so it seems to come from your right side. Likewise, if the sound reaches your left ear first, the cells suppress it in your right ear, so it seems to come from your left side.

If a sound arrives at both ears at the same time, you interpret it as coming from either in front of you or behind you.