

Figure 7-6. Phase differences between the ears as a cue for sound localization. Note that low pitches arrive at the ears only slightly out of phase. The ear for which the receptors fire first (here, the right one) is interpreted as being closer to the sound. The greater the difference between the ears, the farther the sound must be to the side. However, with higher-pitched sounds, as in the right part of the figure, the phase differences become too large to be useful, as it is ambiguous whether the sound wave in one ear is half a cycle ahead of the other ear or half a cycle behind.

from: *Biological Psychology*, 1st ed., by J. W. Kalat, Wadsworth Publishing (Belmont) p 18**2**.