

sensory impression which will not have a certain sense of space or position in regard to the body, once that this latter is perceived to be distinct and separate from the rest of the universe.

Children are born deaf and only begin to hear about the fourth day after birth. About the eleventh week they begin to move the head in the direction from which a sound comes. A week later the turning of the head in the direction of the source of a sound is sudden and rapid, even when the glance of the eye does not take at once the correct direction, but once the direction was discovered the child hearkens with the closest attention. After the lapse of two or three weeks, the turning of the head toward the source of sound occurs with the certainty of a reflex movement.

Now for the first time distant sound impressions are perceived. The perception of sound through the bones of the head occurs somewhat earlier than the twentieth month. Darwin, Vierordt and Demme give varying periods as to the first perception of the direction of sound by an infant, the extremes being twelve weeks for the earliest and seventeen weeks for the latest.

Guinea-pigs noted sound and its direction the very day of birth, although deaf immediately after birth. The little auricles contracted and moved with great rapidity, comparable to the action of the pupil under light stimulus.

Cats and dogs I have found to give similar results, although they have a tendency to project a sound on their own level even though coming from above them.

We thus see animals are in advance of infants in regard to the early age at which they appreciate sound and its direction. As Preyer remarks, the child hears nothing at first, then hears some sounds indistinctly, later hears many sounds indistinctly. Now very gradually he distinguishes an individual sound distinctly from among many indistinctly, and finally hears much distinctly and distinguishes strong high tones earlier than deep ones. Only when this latter stage is being reached does the infant seem to obtain some certain idea as to the direction from which a sound comes.

This perception of sound and its direction, in common with all