

# **An Alternative Foundation for Auditory Perception: Sensory Sub-Cultures**

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Presented to the Hearing Research Center at Boston University, April 18, 2003

Abstract:

Mainline studies on the auditory perception of space assume a baseline performance based on the properties of various neurological substrates. In the process of making models of these substrates, empirical studies treat variability as noise that can be suppressed by averaging. The alternative concept, which answers a different set of questions, assumes that variability is the data.

Having accepted the premise that perception depends on an individual's sensory sub-culture and micro-culture, a fringe area of social science research now recognizes the field of sensory anthropology. According to this view, the functional meaning, performance, and neurological properties of auditory perception are, in part, driven by culture. Although most of the evidence for viewpoint is speculative, informal, and part of folk science, the lack of rigorous research in no way undermines the existence of the phenomenon. Rather, when a phenomenon does not fit a research paradigm, it is not easily studied. Even in our relatively homogenous culture, there are recognizable auditory micro-cultures that include: musicians, acoustic architects, audio engineers, and segments of the blind population. In some cases, there is neurological evidence of major difference in brain functionality. Since this alternative construct often describes observation of real people in the real world, one is forced to conclude that perceptual studies are actually examining the neurological response to a massive immersion in a particular culture. Over a decade, a perceptual system has been trained for more than 30,000 hours, which is four orders of magnitude larger than an experimental training session of 3 hours.