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## Flashsonar or Echolocation Education: Expanding the Function of Hearing and Changing the Meaning of Blindness

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Abstract: Sight is primarily associated with the function of gathering and processing near and extended spatial information which is largely used to support self-determined interaction with the environment through self-directed movement and navigation. By contrast, hearing is primarily associated with the function of gathering and processing sequential information which may typically be used to support self-determined communication through the self-directed use of music and language. Blindness or the lack of vision is traditionally characterized by a lack of capacity to access spatial information which, in turn, is presumed to result in a lack of capacity for self-determined interaction with the environment due to limitations in self-directed movement and navigation. However, through a specific protocol of FlashSonar education developed by World Access for the Blind, the function of hearing can be expanded in blind people to carry out some of the functions normally associated with sight, that is to access and process near and extended spatial information to construct three-dimensional acoustic images of the environment. This perceptual education protocol results in a significant restoration in blind people of self-determined environmental interaction, movement, and navigational capacities normally attributed to vision - a new way to see. Thus, by expanding the function of hearing to process spatial information to restore self-determined movement, we are not only changing the meaning of blindness, and what it means to be blind, but we are also recasting the meaning of vision and what it is to see.

**Keywords:** echolocation, changing, sensory, function

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