KEYNOTE

The Past, Present and Future of Low-Vision Research: a Personal Perspective

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Dr. Gordon Legge received a Bachelor's degree in Physics from MIT in 1971, and a Master's degree in Astronomy from Harvard in 1972. In 1976, he obtained his Ph.D. in Experimental Psychology from Harvard. In 1977, dr. Legge joined the faculty of the University of Minnesota where he is now a professor of psychology and neuroscience, and Director of the Minnesota Laboratory for Low-Vision Research. His focus of research is on visual perception and cognition. Projects in his lab focus on the roles of vision in reading, object recognition, and spatial navigation. In all of these areas, he has a special interest in the problems encountered by people with low vision. Dr. Legge's lab has been widely recognized for applying the principles and methods of basic visual science to explain the difficulties encountered by people with low vision. One practical outcome of his research is the development of the MNREAD Acuity Chart, designed for use in normal and low vision. Other areas of research include studies of binocular vision (including stereopsis) and contrast coding. Dr. Legge is a member of the editorial board of the *Journal of Vision*. He recently served a four-year term on the National Advisory Eye Council. He was a member of a National Research Council committee involved with the redesign of U.S. currency bills. One result of his work is the large-print numerals on the new bills which are helpful to people with low vision.

Keynote lecture outline

Research on low vision has the goal of enhancing the quality of life of people with impaired vision. How does the field of low-vision research fit into the broader domain of vision science and how did this role emerge? What are the promising directions for future low-vision research? I will provide a personal perspective on these issues, with examples from my own research on reading and mobility. I will highlight two general areas of promising research on low vision: enhancing environmental accessibility, and understanding and exploiting the plasticity of the adult visual pathways.