

LETTERS TO THE EDITOR

To the Editor:

I would like to comment on Dr. Bruce Blasch's Guest Editorial "Low Vision and Blindness" in the October, *Journal of Rehabilitation Research and Development* 1999;36(4) page vii-x, (<http://www.vard.org/jour/99/36/4/gsted364.htm>).

As one whose rehabilitation research in the 1950s and 1960s centered on technology to ameliorate blindness, I join Dr. Blasch's approval of this single-topic issue devoted to current R&D addressing low vision and blindness. Having been involved in some of the VA meetings he names of that period, having founded the MIT Sensory Aids Evaluation and Development Center he mentions (1), and having served on the VARR&D Scientific Review Board from 1983 to 1995 (and now rejoining it), I can on the basis of these experiences endorse his opinion that "The Department of Veterans Affairs (VA) has a long and distinguished history of leadership and research innovation in developing clinical programs and supporting new technology and research for veterans with visual disability."

However, I take exception to his observation that "... rehabilitation programs for civilians have never compared with those developed for veterans at Valley Forge, Old Farms Dibble, Hines and the subsequent Blind Rehabilitation Centers." I have no personal experience with any of the Army and VA facilities he mentions, but I do have first hand knowledge of the Carroll Center for the Blind and its predecessors: the St. Paul's Rehabilitation Center for the Blind and the Catholic Guild for All the Blind, as well as having been privileged to have had extensive personal contact with the Guild's founder, the Reverend Thomas J. Carroll. I was director and president of the Guild, nee Center, from 1967 through 1974, during which period Father Carroll died.

My recollection is that Father Carroll's introduction to, and subsequent commitment to, the rehabilitation of the blind stemmed from his experiences as a military chaplain at Valley Forge. As for comparison of then concurrent VA programs with the civilian rehabilitation program he developed and directed, I can quote his words from his book, *Blindness—What It Is, What It Does and How to Live with It*, still the definitive treatise on its subject:

A "total" rehabilitation center, consequently, provides not only the best but the only reasonably adequate answer.[. . .]

The Veterans Administration runs such a center for newly blinded veterans at Hines, Illinois. St. Paul's Rehabilitation Center in Newton, Massachusetts, similarly serves the general population. Another is being established by the Greater Pittsburgh Guild for the Blind. (2)

Thanks to committed management and staff in the intervening years, the Carroll Center has continued to admirably serve newly blinded adults in its residential and daily programs, extended to include congenitally blind and low vision persons. Vocational orientation is stressed, including computer training. I have forwarded a copy

of the Editorial to the Carroll Center's president, Rachel Rosenbaum, and I understand she also will be commenting on their "civilian" rehabilitation program.

I wish also to speak to the VA's "long and distinguished history of leadership and research in . . . supporting new technology and research for veterans with visual disability," supplementing Dr. Blasch's descriptions.

Spurred by the sensory deficits of injured World War II veterans, the Subcommittee on Sensory Devices was formed in the National Research Council to coordinate immediate postwar research, leaving as its legacy a 1950 publication that constitutes the "genesis" benchmark of the field (3). The single greatest and most enduring aid devised during the immediate post-WWII rehabilitation of visually impaired veterans was the development of the long cane mobility technique by Richard E. Hoover (4).

In 1963 I became a member of the National Research Council's Committee on Prosthetics Research and Development (CPRD), funded by the VA; I broadened its purview from limb amputation prostheses by founding its Subcommittee on Sensory Aids (5). In 1967 at the National Academy of Sciences a conference on sensory aids for the blind was sponsored by my subcommittee and the CPRD and therefore the VA (6).

In the early 1960s the Department of Health, Education and Welfare, through its Office of Vocational Rehabilitation, was beginning to support research on blindness issues, and the American Foundation for the Blind, primarily through the informed efforts of its peripatetic Director of Technological Research, John Kenneth Dupress, was advocating research in the field. John was blinded (and maimed) during WWII and was rehabilitated at Valley Forge; he recruited me (and MIT) into blindness-related research.

However the VA research program, managed then by Eugene F. Murphy and Howard Freiberger, was already well established as a result of its earlier commitment to the blinded veterans of WWII. In 1974, as I phased out of related R&D, I authored a lengthy chapter on sensory aids that includes descriptions of the VA sponsored efforts on direct-access reading devices, print-to-speech conversion, and mobility aids, together with an extended list of references (7).

My more recent knowledge of the current field is based primarily on my co-chairing the Panel on Communication, Sensory, and Cognitive Aids of the VARR&D Scientific Review Board. Proposals are no longer dominated by devices per se; as Dr. Blasch elaborates, they now largely respond to the problems facing the aging veteran cohort experiencing impaired vision, often with other complicating factors.

Robert W. Mann, ScD

Whitaker Professor Emeritus
Biomedical Engineering, MIT

Eric P. and Evelyn E. Newman Laboratory
for Biomechanics and Human Rehabilitation
Cambridge, MA

REFERENCES

1. Mann RW. The establishment of a Center for Sensory Aids Evaluation and Development. In: Proceedings of the Mobility Research Conference, Rotterdam, The Netherlands. New York: American Foundation for the Blind; 1965. p. 173-90.
2. Carroll Rev. TJ. Blindness—what it is, what it does and how to live with it. Boston: Little Brown and Company; 1961. p. 95.
3. Zahl PA, editor. Blindness: modern approaches to the unseen environment. New York: Hafner; 1962 (reprint).
4. Hoover RE. New outlook for the blind. 1946;40:246-51.
5. Mann RW. The role of the Subcommittee on Sensory Aids of the Committee on Prosthetics Research and Development of the National Academy of Science—National Research Council USA. International Conference on Sensory Devices for the Blind, London: St. Dunstons; 1966. p. 435-8.
6. Sensory aids for the blind. (Report of conference held at National Academy of Sciences, Washington, DC, March, 1967, sponsored by Committee on Prosthetics Research and Development). National Academy of Science: Publication 1691, 1968.
7. Mann RW. Technology and human rehabilitation: prostheses for sensory rehabilitation and/or sensory substitution. Adv Biomed Eng; New York: Academic Press; 1974;4:209-353.