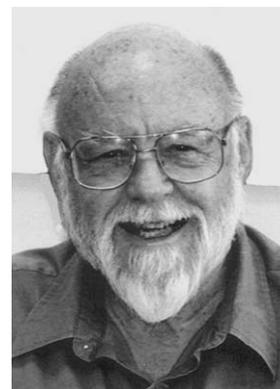


Editorial

Auditory Training



When Captain Raymond Carhart was sent to the Deshon General Hospital, in Butler, Pennsylvania, and was instructed to issue hearing aids to soldiers returning with hearing loss from the battlefields of World War II, he was forced to improvise. There were no textbooks on how to select hearing aids, and there was little information on what to do after they were issued. These were daunting challenges, but Carhart met them head on. In seeking a rational basis for hearing aid selection, he virtually invented speech audiometry as we know it. But he went well beyond this point, asking how we can optimize the benefit derived from amplification. Here he called upon what he had learned from Cordia C. Bunch during the short period that they had worked together at Northwestern University before Bunch's untimely death in 1942. Bunch had pioneered clinical audiometry while a student of Carl Seashore at the University of Iowa and later while working as what we would now call a "clinical audiologist" in the office of otologist L.W. Dean in St. Louis during the 1930s. Bunch insisted to Carhart that just issuing a hearing aid was not enough. There had to be postfitting training in the use of the aid for maximal benefit. Carhart took this advice to heart at Deshon; he devised a fairly comprehensive postfitting program to strengthen the listening skills of the young veterans. He called it "auditory training" and described the rationale in some detail in his chapter on the subject in the first edition of *Hearing and Deafness* (Davis, 1947).

For the next four decades, we all paid lip

service to the importance of auditory training, but few did very much about it. Most audiologists sidestepped the issue as too time-consuming and unproven. Within the past two decades, however, confluent with the demonstration of the importance of systematic training after the fitting of cochlear implants, a number of individuals have stimulated a renewed interest in a more comprehensive concept of aural rehabilitation. For an in-depth review of this broad picture, the recent volume, *Foundations of Aural Rehabilitation* (Tye-Murray, 1998), is an excellent source. One aspect of this resurgence of interest is a revisiting of the original concept of auditory training. Is it really possible to improve the listening skills of hearing-impaired individuals by systematic training?

In this issue of *JAAA*, authors Robert Sweetow and Jennifer Henderson Sabes describe a new approach to auditory training that does, indeed, seem to provide a positive answer. The new system, called LACE™, is a home-based, interactive, adaptive, computer-based program for hearing-impaired adults. There is a strong emphasis on engaging the listener in the hearing aid fitting process, on providing listening strategies, and on addressing cognitive changes that impact successful listening in elderly persons. In a two-group crossover design, Sweetow and Henderson Sabes evaluated the impact of the LACE™ program on 65 hearing-impaired participants, assessing results of both on-task training and off-task outcome measures. On-task training included speech in babble, time compression, competing speaker, auditory

memory, and missing word. Over four training sessions, there was impressive, significant improvement on all five tasks.

Off-task outcome measures included QuickSIN, HINT, Listening Span, and the Stroop Color Word test. There was significant improvement on each outcome measure except HINT. In addition to these auditory and cognitive measures, there was also significant improvement in subjective ratings as assessed by the Hearing Handicap Inventory for the Elderly (HHIE) and the Communication Scale for Older Adults (CSOA) scales.

This is an exciting development in aural rehabilitation. Taking an innovative approach to an old problem, Sweetow and Henderson Sabes have shown that, as part of a well-conceived and comprehensive aural rehabilitation thrust, auditory training can benefit hearing-impaired adults. In their words, “As a profession, audiology

must adopt an adamant position that there is more to communication than access to acoustic information” (p. 556). We trust that this paper will stimulate renewed interest in a long-overlooked dimension of our profession.

REFERENCES

Davis H. (1947) *Hearing and Deafness: A Guide for Laymen*. New York: Murray Hill.

Tye-Murray N. (1998) *Foundations of Aural Rehabilitation*. San Diego: Singular Publishing Group.

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