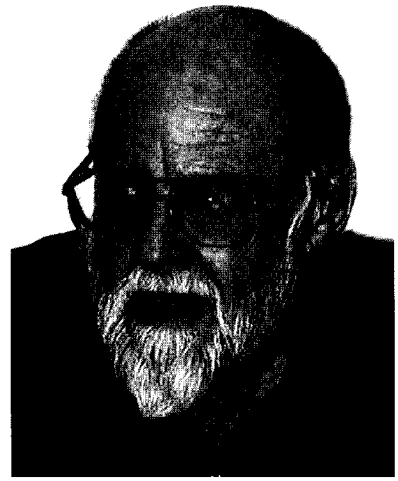
Editorial

Laboratory versus Real Life



If you have ever had to testify in court about audiograms and audiometric levels, you are familiar with the favorite question from the attorney for the other side: "Now, doctor (dramatic pause), do we listen through earphones very much in everyday life?" The point is well taken. In our zeal for precise laboratory control of the test situation, we sometimes forget that most people don't spend a lot of their time listening through earphones, insert receivers, or loudspeakers in exceedingly small, eerily dead-sounding, dimly lit enclosures. The issue is especially relevant to directional microphones. Laboratory studies have shown quite consistently that, in situations where directionality is important, listeners do better with directional than omnidirectional microphones. However, does this advantage translate into real-life benefit?

In this issue of *JAAA,* a team of four investigators from the Army Audiology and Speech Center of the Walter Reed Army Medical Center in Washington, DC, reports results of two studies of the actual use of directional microphones. In the article "Performance of Directional Microphone Hearing Aids in Everyday Life," authors Mary Cord, Laurel Olson, Rauna Surr, and Brian Walden used telephone interviews and questionnaires to query 57 clinic patients who had been fitted at least 6 months earlier with a variety of switchable omnidirectional/directional binaural aids. In a second article, "Influence of Environmental Factors on Hearing Aid Microphone Preference," the same research team studied 11 experienced hearing aid users who had been fitted with a switchable pair of aids. Participants kept a daily journal over a 6-week period. They were asked to identify and describe, each day, a listening situation in which one program performed better than the other.

In general, the laboratory superiority of directional microphones was not nearly so evident in everyday life. Indeed, a sizable proportion of individuals fitted with switchable microphones "eventually do not use the directional microphone option." However, in specific listening situations, the directional aid was clearly preferred. The authors found that this preference was governed by four general characteristics of the listening situation: (1) location of the primary talker, (2) presence or absence of background noise, (3) type of background noise, and (4) type of space in which communication takes place.

Two take-home messages are clear. First, the findings highlight, once again, the importance of counseling users about realistic expectations of directional microphones. Second, if users genuinely experiment with the directional microphone option in everyday life, very likely they will identify specific listening situations in which they will obtain significant benefit.

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