

THE ROLE OF SOUND

don't ignore the hearing

OF HARD OF HEARING STUDENTS

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By Mark Ross

A few years ago I was at a meeting with a number of leading figures in deaf education, some of whom were deaf while others were hearing. The meeting concerned future research priorities for deaf and hard of hearing students and I was invited both as a professional and a hard of hearing person. We were seated in a modified rectangle behind tables on top of which microphones were placed. Interpreters were seated within the rectangle so that they could provide the necessary interpreting services.

As the meeting commenced, it was apparent that some of the hearing educators, who were simultaneously signing and speaking, were ignoring the microphones placed on the table. It was necessary for me to remind them, time and time again, to please talk into the microphone. And time and time again some would forget, often standing some distance from the microphone as they got involved in what they were saying. Finally, I tried to draw a parallel between visual access for deaf people and auditory access for hard of hearing people. I pointed out that it was as important for me—as a hard of hearing person—to hear as it was for the deaf participants to have a good sightline. Ironically, I had no difficulty understanding the deaf participants, since all the interpreters used their microphones correctly while reverse interpreting.

Photography by John T. Consoli

Far right: Learning to listen and making sense of sound are important everyday activities.





The educators were not being malicious by deliberately ignoring me or my specific needs. These were good people who had spent their lives educating deaf students. They really did want me to understand them. However, it was apparent that they had never really internalized the auditory needs of hard of hearing people, in spite of the fact that their institutions served both deaf and hard of hearing students. For them, only the absence of hearing had to

be addressed, not the presence of significant residual hearing.

What disturbed me about this experience was not my personal difficulty but its implications for the hard of hearing students and prospective teachers for whom these educators bore responsibility. Given my experience, it seemed unlikely that the auditory needs of hard of hearing students would be knowledgeable and sensitively managed.

Conceptualizing a People

It all comes down to the fact that deaf and hard of hearing people do not constitute one group distributed along a continuum of hearing loss. In terms of function, they are two separate groups. Of course, the distinction between groups is not absolute; there are overlapping needs and some people do not fit comfortably, or only, in just one group. There are people who fall into a gray area, both from an

audiological standpoint and psychosocially.

Hard of hearing people primarily depend upon audition for communication purposes, while deaf people primarily depend upon vision. In respect to communication and educational processes, there is a world of difference between people with a functional, albeit impaired, auditory channel and those who do not use this channel. The results of this difference should permeate the entire educational process.

We really don't know at what degree of hearing loss the "hard of hearing" category merges into the "deaf" category. Traditionally, the figure of 90-decibel hearing loss has been used to mark the border between deafness and hearing impairment, but this is an imprecise border. I myself have a 90-95-decibel bilateral hearing loss, but I am most

definitely hard of hearing, not deaf. With amplification and/or a good telecoil, I have little difficulty understanding conversation on the telephone or in quiet situations. In noisy places I use various kinds of technology, such as a personal FM microphone transmitter and directional microphone hearing aids. Since I'm a terrible speechreader (though I do try) and I do not sign, I need to hear in order to comprehend speech. Of course, there are plenty of times that I do have difficulty—and I do enjoy and benefit from captioning on my TV. Nevertheless my orientation is auditory and not visual.

On the other hand, there are people with less of a hearing loss who, in terms of their ability to function auditorally, are deaf. Most audiologists would agree that auditory functioning has to be the deciding factor, although there is no

consensus on the most appropriate functional measure. A functional definition that I first heard many years ago is as good as anything I've since heard: Anybody who can understand speech on the telephone, as I can, is functionally hard of hearing. There are late-deafened people, for example, who are functionally deaf, but consider themselves hard of hearing. By my definition, they are deaf. And there are physiologically deaf people who, by virtue of cochlear implants, are functionally hard of hearing. Again, by my definition, they would be categorized as hard of hearing. I do want to emphasize that I am focusing here only on audiological deafness and not personal identity or other psychosocial factors.

It is a fact that most children with a hearing loss are—or could be with appropriate auditory management—functionally hard of hearing. Think



about the demographics of hearing loss as a kind of pyramid. As one ascends the pyramid, the degree of hearing loss increases. The greatest number of people with hearing loss can be found at the base, while those people with the most severe hearing losses are located at the tip. And even at the tip where the population of deaf people is congregated, recent technological events, i.e., cochlear implants, are capable of increasing auditory capabilities.

My primary educational “prescription” for hard of hearing children is really quite simple: Utilize their residual hearing as fully as possible. Of course, this doesn’t just mean outfitting the child with a hearing aid. Many, if not most, children require various kinds of support services, including communication therapy and academic tutoring. And, of course, individual needs and individual characteristics have to be kept in mind; we educate specific children, not categories. Still, for the most part, the education of hard of hearing children has to proceed primarily through the auditory channel, in much the same way it does with normally hearing children. This carries with it a number of important prerequisites and implications. Here are some of them:

- **Identifying and managing hearing loss early.** Early amplification can eliminate, or at least markedly reduce, the structural and physiological consequences of auditory sensory deprivation. The longer the delay, the more difficult it will be for a child to reach his or her academic and auditory-verbal linguistic potential.
- **Fostering the reciprocal relationship between auditory input and vocal output.** Speech intelligibility depends on auditory monitoring of the synergistic action of the muscles of respiration, phonation, and articulation. Normally hearing people acquire this skill unconsciously and effortlessly; with early amplification, this should be a goal for hard of hearing children as well.

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- **Implementing a developmental rather than a remedial approach to management of hearing loss.** Our most powerful ally in fostering auditory-verbal development is the developing human brain. Children are neurologically “hard-wired” to develop language, provided they are exposed to the right kind of inputs at a sufficiently early age.
- **Ensuring that all personal and classroom amplification systems provide an optimal amplified signal.** It is much more difficult to actually reach this goal than to assert it. It requires application of multiple best practices in pediatric audiology. The amplification system must provide children with a consistent and highly positive speech-to-noise ratio.
- **Controlling the acoustics in the educational environment.** In the past few years, there has been long overdue attention to this factor. A number of professional associations have developed position papers on this topic and the U.S. Access Board will soon be issuing guidelines on classroom acoustics. We

should understand that it is simply impossible for hard of hearing children to fully utilize their residual hearing when speech signals are masked by noise and reverberation. Furthermore, the classroom acoustical conditions must be optimized whether or not children use personal or classroom amplification systems.

These rather obvious points are not new. I know that I personally have been writing on this topic for about forty years. I think that we’ll continue to wander in the wilderness for another forty years unless the professionals involved understand and value the presence of residual auditory capacity in children with hearing loss. Traditionally, education for hearing-impaired children has focused on the hearing loss, i.e., on what has been lost. This may have made sense years ago in the pre-electronic era, when there was little that we could do audilogically for those with moderate and severe hearing losses. If they were to be educated, a visual avenue had to be employed.

But now the situation is different: Now we can focus not on what has been lost, but on what has been retained. We have an entire profession devoted to the measurement of hearing, one that can bring an impressive arsenal to bear on the task. We also have a host of sophisticated devices designed to fully utilize a child’s residual hearing and even produce auditory sensations in the physiologically deaf, i.e., via cochlear implants.

But all this is meaningless if the concept of residual hearing is ignored and if the sense of hearing is not valued or is dismissed as an irrelevancy. Hard of hearing children cannot get the teaching and instruction they deserve and require if their teachers do not understand or fully appreciate the role of audition in their education.

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