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Are You Really Familiar with the Literature?

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The annual conference of the CAA is a good reminder to all of us that the science of audiology is alive and well. Let us not forget that the word “audiology” literally means the ***study*** of hearing. Needless to say, we do not already know all that is to be known about hearing mechanisms, and audiologists should live up to their name and be in a constant questioning mode. The podium and poster presentations at the CAA conference show that many of our community, and particularly the trainees, are in the right frame of mind. They are inquisitive about existing clinical issues, and eager to understand and adopt new knowledge as it emerges.

We should all try to participate in this process. Audiologists in the field can study clinical issues and report on them. Academic audiologists can experiment with new methods and ideas and publish them. Both of these groups need to frame their own studies based on what has already been shown in the published literature. This aspect of the research method is vitally important. Any research observations that you make are usually based on methods that have been developed by others who might deserve a nod. Reporting a study as “novel” is only valid if due diligence is given to searching the relevant literature. I will add here that not all research needs to be novel, and that repeating a study done by others is useful, providing that you compare your new data with the previous work. If your findings contradict previous work, then that can be important.

However now I want to note a disturbing trend that I see in research studies, including in audiology. As I question in the title: Are you really familiar with the literature? On more than a few occasions I have read or examined graduate research theses, and noted that in the reference list, very few if any cited papers date back more than a decade or two. I also note this trend in published papers. There are some important issues here.



We have a general tendency to live more in the present than in the past, and “up-to-date” stuff appears to be more relevant than historical data. However, history often repeats itself, and a good look back can be useful. For example, in the field of auditory psychophysics (that is a fancy term for hearing testing) there are literally thousands of published reports (mainly by German and Dutch scientists) dating back to the beginning of the last century. Almost every subjective aspect of audition was studied during this period, but you rarely see any citation of that original work. Similarly, in objective electrophysiological studies of hearing, how many times do you see citations of original studies by Halowell Davis, or Robert Galambos? (Some readers might be asking, who are these guys?)

Part of the “problem” has to do with online literature searches. Only in recent times have we had electronic versions of papers. Before that, papers were, well, papers. Many early scientific publications have not been digitized and thus electronic data-bases do not include them. Nobody goes to the library and searches out original papers (some old-farts excepted). The second problem is that many of us appear to have given up caring about the pioneers, the original authors, and the first observations. We seem to prefer citing a recent paper related to our study, rather than take the time to trace back to more original work. In an electronic world where too many papers pop out of a Medline search, perhaps the tendency is to choose a few recent publications. The risk of not going back far enough is that your own work may be less original than you believe. And note also that if this trend continues, the ground breaking new discovery that you have just made will be forgotten in 10-20 years time. It works both ways.