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Australian

Hearing

National Acoustic Laboratories

12 October, 1 2000
Dr Brendan Nelson, MP
Suite 8 12-16 Tryon Road
Lindfield NSW 2070.

Dear Dr. Nelson,

I refer to your enquiry into boys' educational performance. I had not heard specifically about this enquiry when I sent a letter about our concerns on same topic to Dr. Jack Best of NHMRC Strategic Research Development Committee some months back. I am sending you a copy of this letter to Dr. Best. We have not yet received a formal reply. A copy was also at the time sent to the president of the AMA.

In our letter Dr. Murray and I show that our research at Australian Hearing has produced one further reason for the difference in relative gender performance. It is that, on average, auditory processing in young males is slower than for females. We show this, not through speech comprehension exercises, but through the use of the relatively new and unambiguous otoacoustic emission test which measures physical performance of the active outer hair cells in the cochlea. We have shown that even before a hearing loss is registered by conventional tests or even self awareness, lower emission strengths mean there is nevertheless a large reduction in the amount of information being transmitted up the auditory pathway. We suspect that this difference generally accounts for the difference in gender specific verbal ability, but what we are suggesting is newer still - the auditory performance of males appears to be actually declining relative to females due predominantly to higher levels of noise exposure. These differences are marked even in the first decade of life.

We are aware that early detection of hearing problems is receiving a great deal of attention, but this effort is not addressing the nature of the problem we have described, because it is still only detecting the existent condition by whatever means is used to confirm a threshold shift. Since standard threshold tests do not test the speed of processing, they do not show the difference between the verbal development (and therefore written skills) of males and females.

I also enclose the most significant article representing our recent work which appeared in the MJA (Dec. 1998). These particular data do not feature the first decade where the gender difference also exists. As well explain in the letter, we believe our findings should be taken into account in any government considerations into the matter.

We would appreciate knowing more of your enquiry as a background to our next article which features the gender difference in otoacoustic emission scores. We would also welcome the opportunity to tell you first hand of our research and more of our suggestions as to how to tackle the problem.

Yours sincerely

Eric L. LePage, Ph.D.
Senior Research Scientist
Hearing Loss Prevention Research
enc.

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