OTHER PAPERS
The hearing impaired in industry: discrimination v. responsibility
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Many employers are faced with the problem of individuals with hearing losses applying for positions that have traditionally been the cause of many cases of industrial deafness. On the one hand, there is a risk that those who already have a significant hearing loss will incur a further deterioration in their hearing as a result of high levels of noise exposure over a long period of time; on the other, to prevent individuals from entering a particular vocation on the grounds that a present hearing disability may be worsened, can be seen as a form of discrimination that places unacceptable restrictions on the individual’s lifestyle. This paper discusses the practical implications of these two viewpoints in the industrial situation and offers guidelines for the management of the hearing impaired at the pre-employment stage. The guidelines suggest that all occupations within the particular workshop, factory, etc., be given noise hazard ratings and that applicants who have a hearing loss, be evaluated for job suitability partly on the grounds of hearing thresholds, age, and the noise hazard rating of the position. Methods of establishing noise hazard ratings and of assessing the individual’s auditory suitability for the position are discussed.

Electrode configuration and wave enhancement in brainstem evoked response audiometry.
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There have been suggestions that the use of different surface electrode configurations will enhance particular aspects of the waveform in an auditory brainstem response (ABR). Laboratories, for example, appear to show preference for recording from the vertex, while others use instead the forehead as a recording position. One of the problems in utilising the ABR clinically especially for the determination of conduction time in the Central Auditory Nervous System is that some waves (in particular waves I and III) are not always clear from the obtained waveform. It would therefore be of considerable advantage if techniques could be developed to enhance certain features of the ABR waveform in particular cases, so as to determine reliable conduction times. The present investigation considers 3 electrode configurations: forehead to mastoid, vertex to mastoid, and earlobe to earlobe. Results are presented to determine the practicality of changing electrode configurations to enhance features of the waveform in ABR testing.

The perception of vowels by hearing impaired children
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This paper reports the results of a series of closed-set vowel identification experiments with four congenitally hearing impaired children (age 13 years) with moderate to profound bilateral sensorineural losses. Material was presented under three test conditions: hearing alone, through currently worn hearing aids; lipreading alone; and hearing plus lipreading. Analysis of the results using multidimensional scaling and hierarchical clustering revealed a strong relationship between the perceptual organisation of the responses and the physical attributes of the method of signal presentation. In the case of acoustic signals, the results indicated a perceptual organisation describable in terms of the duration of the vowel and the relative frequencies of the first and second formant. For visual signals, the perceptual organisation correlated with characteristics of lip-shaping during production. These results indicated that the subjects attempted to use similar perceptual cues as the normally hearing population. The relationship between the perceptual organisation of the acoustic stimuli and the aided audiogram is also discussed.
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