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The production of selective deafness by direct suggestion under hypnosis

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The production of selective deafness by direct suggestion under hypnosis. By S. BLACK and E. R. WIGAN. *Psychiatric Department, The West London Hospital, Hammersmith, London, W.* 6, *and The Engineering Research Department, British Broadcasting Corporation, Kingswood Warren, Tadworth, Surrey*

The auditory thresholds of six deep-trance hypnotic subjects with normal hearing were measured in the waking state and again after deafness to tones of specific frequency had been suggested under hypnosis.

The subject lay on a couch and wore high-fidelity headphones fitted with soft rubber earpads to minimize ambient noise, which was estimated at 30/40 Phons. The auditory thresholds were measured between 100 c/s and 10,000 c/s, and two methods were used for presenting the test tones in the headphones. In the first method tones of variable but precisely known pitch were produced as a series of pulses from a circuit fed by a Muirhead–Wigan decade audio-oscillator. By use of a variable octave filter any distortion due to the oscillator or the pulse generator was kept to less than 0·1 %. The intensity of the tone was controlled by the operator and different frequencies were presented at random. In the second method a Békésy audiometer provided a gliding tone, the frequency rising throughout the test at the rate of about half an octave per minute. In this method the intensity was controlled by the subject and the result recorded automatically. In all experiments, during the suggestion of selective deafness to the hypnotized subject, the specific frequency involved was presented as a constant tone at an intensity level of 80 db sound pressure level (S.P.L.), over a period limited to 20 sec.

It was found that hearing of tones at the specific frequencies tested between 250 and 1000 c/s, and at a maximum intensity of 100 db S.P.L. (the maximum considered safe for the subject at the duration used), could be inhibited by suggestion. In some subjects this inhibition tended to decay after periods varying from 10 to 30 min, while in others inhibition remained until removed by counter-suggestion. In certain subjects this selective deafness sometimes included not only the test frequency but also half and twice this frequency.

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