Table 1. ABO Blood-group in Conditions with Multifactorial Genetic Systems

	No. sample control	No. Patients	No. Comparison	Incidence	χ^2	P Probability	P Heterogeneity
Tuberculosis *	10	4,505	A : O	1·136	12·19	$5{\cdot}10^{-3}$	0·06
Sarcoidosis †	1	518	A : O	1·142	15·22	10^{-3}	—
Pernicious anaemia ‡	9	1,498	A : O	1·26	16·54	$6{\cdot}10^{-5}$	0·2
Diabetes mellitus *	5	3,450	A : O	1·14	10·8	$3{\cdot}10^{-3}$	0·94
Ulcus duodeni ‡	9	8,272	O : A	1·36	144·53	10^{-10}	0·004
Ulcus ventriculi ‡	9	3,999	O : A	1·16	18·54	$1{\cdot}5{\cdot}10^{-5}$	0·5

* Collected by Jörgensen (1963).
† By Jorgensen and Wurm (1963).
‡ Collected by Roberts (1957, 1959).

Table 2. Relative Incidence of ABO Blood-group in Leukaemia

Type of leukaemia	No. of Patients	No. of Controls	Comparison	Relative incidence Type A	χ_2 (m = 1)	P Probability
Acute leukaemia	78	694	A : O	1·032	0·0152	0·92
Chronic granulocytic leukaemia	104	694	A : O	1·106	0·2247	0·63
Collection of acute and chronic types	182	694	A : O	1·119	0·0435	0·83

leukaemia. No statistically significant relation was found between leukaemia and the ABO blood groups (Table 2).

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PSYCHOLOGY

Effects of Age on the Recall of Dichotic Words

A recent report by Inglis[1] appears to demonstrate unequivocally that a short-term storage mechanism of the type postulated by Broadbent[2] is required if an individual is to recall correctly a series of dichotic digits. Furthermore, this storage mechanism becomes less efficient as age increases. Briefly, Broadbent has suggested that both perceptual and storage mechanisms are necessary in a dichotic situation. There is sequential recall, and one half of the dichotic series is held in temporary storage while the other half is being recalled. Once the first half-set has been reproduced, the stored, second half-set becomes available for recall. It is this second half-set which is subject to deterioration with advancing age. This phenomenon has been previously demonstrated[3,4], but the possibility existed that these findings might also be explained in terms of other age-related changes in the nervous system. The report by Inglis[1] appears to preclude these possibilities. His subjects were 120 people aged 11-70. By specifying the order of recall, either before or after presentation of the stimuli, he was able to show that the results could not be attributed to age changes in perception and/or attention. That is, there was no evidence of failure to hear or to attend to the stimuli.

We have carried out a further experiment in an attempt to extend the generality of these findings. The preliminary results are reported here. The problem was to determine if non-numerical stimuli are processed in the same way as digits. That is, if an individual is presented with dichotic words, will these be recalled sequentially and, if so, will the ability to do this be related to age?

Subjects were 120 people aged 11–70. There were 20 (10 male and 10 female) in each age decade. The series of stimulus words, for example, floor, hair, grass, girl, ranged in length from one to four per half-set. The subjects were free to recall first whichever half-set they wished. This procedure was identical to earlier investigations[3,4], the only difference being the nature of the stimuli.

The results were virtually identical to those using digits[1,3,4]. There was no significant impairment in the ability to recall the first half-sets. There was, however, progressive and significantly greater difficulty in recalling the second half-sets as age increased. In addition, the longer the series to be recalled, the greater the overall difference between first and second half-sets.

These results are in remarkably close accord with those already cited and reinforce the notion that there is an age-related decline in the efficiency of a short-term memory storage process and this is true whether the material to be remembered is digits or words.

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Hippocampal Ablation in Rats: Effects of Intertrial Interval

Deficits in recent memory following damage to the hippocampus have been reported in man[1] and in the monkey[2]. In a recent investigation[3], we tested the hypothesis that the hippocampus is involved in recent memory functions by using different intertrial intervals in runway acquisition and extinction. The method consisted of administering acquisition and extinction trials to rats under either massed or distributed practice conditions. It was found that the temporal spacing of trials during acquisition was not important but that distributed practice trials served to increase resistance to extinction for hippocampal-damaged rats. The purpose of the work reported here was to clarify the earlier results by determining whether the extinction phenomenon was due to the spacing of trials during acquisition or during extinction. In this work, each subject received both massed and distributed trials during acquisition so that, by the end of this phase of training, all subjects had equal experience with each of the two intertrial intervals. At that time the subjects were extinguished under either massed or distributed practice conditions.

Twenty-four male rats of the Long-Evans strain were used. Age of the rats at the time of operation was 100–120 days. Twelve subjects had the hippocampus and overlying cortical tissue removed bilaterally by aspiration and 12 had cortical tissue overlying the hippocampus removed and thus served as operated cortical controls. Unoperated control subjects were not included since results of the previous investigation indicated similar performance for both operated and unoperated control subjects.

Twelve days after operation the subjects were placed on a deprivation schedule of 10 g of laboratory chow daily. Preliminary training was started eight days later and consisted of exploratory trials in the runway without food. After two days of preliminary training the subjects were