Consecutive days

Fig. 2. Response rate divided into 15 min time blocks for pre-drug, drug and post-drug tests. For each drug, rates during 1 day are shown by column and rates during all the days of the experiment are shown by row. Thus the first two rows indicate the 30 min test period before each daily drug injection while the remaining rows describe, in cumulative 15 min time blocks, the 90 min test period after injection. Total daily testing time was 2 h. Doses for each drug were: mescaline (22·5 mg/kg), TMT (15 mg/kg), and tranylcypromine (7·5 mg/kg).

Long-term effects: Fig. 2 also shows the average change in response rate during the pre-drug interval of the operant task on successive test days. Tranylcypromine had a depressant effect on response rate during this period as well, the effect reaching a maximum on the seventh drug day; 5–6 drug-free days elapsed before rate recovered to its pre-drug level. Mescaline, by contrast, showed no significant effect during the same period while TMT exhibited marginal effects with an optimum on the tenth drug day and a persistence of 3 days post-drug.

Because the initial 30 min block of Fig. 2 (the top two rows) is a record of response rate during within-day pre-drug periods throughout the 22 day test series, a significant change in rate indicates a carry-over effect of the drug. This effect, although absent for mescaline, was clearly evident for tranylcypromine, and is to be expected in view of our clinical knowledge of the relatively long-term effects of tranylcypromine[8].

The status of TMT as a substance producing long-term behavioural changes is uncertain, based on this limited study, and depends on more extensive trials for confirmation. There is no doubt that it is mescaline-like in its acute effects on rodents. Whether TMT has psychotomimetic activity in humans and whether the time-course of this activity is appreciably greater than that of other psychotomimetics are questions that warrant additional investigation.

A limited quantity of TMT is available to interested investigators and can be obtained by contacting P. D. C. This work was assisted by grants from the National Research Council of Canada, the Ontario Mental Health

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GENERAL

Mongolism and Duration of Marriage

German[1] suggested that the cause of mongolism is connected with delayed fertilization and that this depends on factors related to the duration of marriage.

To test the hypothesis that the duration of marriage is, by itself, aetiologically significant, we have examined the distribution of this variable in a sample of 988 mongols, of whom 228 were hospital patients and 760 were at home. The diagnosis had been confirmed cytologically in about 20 per cent of the cases. This material was compared with distributions of marriage duration at the births of a control sample of 1,146 non-mongols, nearly all of whom were mentally retarded and most of them severely affected. Of these, 466 were patients in hospitals for the mentally retarded and 680 were living at home. The ages of those in the control group covered the same range as the ages of the mongols. The results of the comparison are shown in Table 1.

Table 1. DURATION OF MARRIAGE IN YEARS BY AGE OF MOTHER AT BIRTH OF CHILD

Age of mother	No. of cases	Mongols Mean duration	σ	No. of cases	Controls Mean duration	σ	Difference of means	Standard error of difference
15–24	96	2·13	1·18	282	2·06	1·13	+0·07	±0·14
25–29	152	4·32	2·58	364	4·35	2·59	−0·03	±0·25
30–34	147	6·84	3·82	271	7·11	3·78	−0·27	±0·39
35–39	281	11·04	5·30	166	10·52	5·08	+0·52	±0·51
40–49	312	14·28	6·25	63	13·15	6·03	+1·13	±0·91
All	988	9·54	6·45	1,146	5·82	4·66	+3·72	±0·25

It is clear that mean duration of marriage at the births of all mongols is very significantly longer than that for births of all members in the control group; there is a difference of 3·72 yr, which is nearly fifteen times its standard error. This effect, however, is the consequence of the known association of mongolism with maternal age, for, when the maternal age is kept constant, it disappears. In each separate maternal age group in Table 1 the difference between mean marriage duration for mongol and control births is statistically insignificant.

The results do not, of course, directly disprove German's conjecture about the origin of mongolism, but they show that it is not supported by statistics on duration of marriage.

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