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PERSONALITY AND THE ESTIMATION OF TIME[1]

H. J. EYSENCK

Institute of Psychiatry, University of London

Past efforts to link personality with individual differences in time estimation have not been altogether successful (Loehlin, 1959), possibly due to lack of theoretical basis. Claridge (1960) has applied Eysenck's (1957) theory of personality to the problem of time errors in a manner which throws some light on this relation. He has argued that the application of the first of a pair of stimuli (S_1) will produce, in addition to the expected excitatory effect, an inhibitory process opposing the continuation of this excitation. A following stimulus (S_2), of intensity equal to that of S_1, will be judged greater (louder, longer, etc.) according to the degree to which the inhibition consequent upon S_1 has "damped down" the original excitation. Extraverts, who according to the theory in question generate more inhibition and dissipate it less quickly, would accordingly be expected to show a greater tendency toward negative time errors. Claridge showed that this was so in an experiment using judgements of loudness, both for normal and for neurotic *Ss*.

If we apply this theory to the estimation of time intervals, we find that if $S_1 = S_2$, S_2 should be judged longer; if we allow *S* to reproduce S_2 after exposure to S_1, he should make S_2 shorter. Proportionally, extraverts should make S_2 shorter than introverts. Claridge, using time intervals of 10″, 30″, 60″, and 90″, and the method of reproduction, found this to be true for both normal and neurotic *Ss*. In the present experiment, time intervals of 5″, 10″, 20″, and 30″ were used, each interval being presented twice, once in the above order, once in the opposite order. *Ss* were 30 extraverted neurotics and 30 introverted neurotics, chosen from some 160 patients on the basis of their scores on the Maudsley Personality Inventory (Eysenck, 1959). Scores on the E scale of 30 or above and of 16 or below were used as cut-off points.

TABLE 1

MEAN JUDGEMENTS AND *SD*s FOR THE TWO GROUPS

Actual time	Extraverts	Introverts	p*
5″	4.92 ± .92	5.58 ± 1.24	.05
10″	9.13 ± 1.38	10.94 ± 2.12	.01
20″	19.18 ± 2.19	20.31 ± 3.09	N.S.
30″	28.84 ± 3.34	29.02 ± 3.99	N.S.

*Based on t test.

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Results are shown in Table 1. In each case the extraverts show a larger negative time error, as predicted. The results agree with those of Claridge, and support the hypothesis.

SUMMARY

Thirty extraverted neurotics and 30 introverted neurotics, chosen on the basis of their scores on the Maudsley Personality Inventory, estimated time intervals of 5", 10", 20", and 30". Extraverts showed the larger negative time error as predicted by Eysenck in his theory of personality.

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