

## SPIRAL AFTER-EFFECT AS A FUNCTION OF LENGTH OF STIMULATION

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In view of the recent interest in spiral after-effects as measures of personality and brain damage (Eysenck, 1957), the main parameters affecting duration of after-effect may repay study. Holland (1958) studied visual angle, illumination, speed of rotation, and length of stimulation; only the last of these exerted a major effect. In this and in several other unpublished studies the relationship of after-effect duration to stimulation period was found to be curvilinear, and the asymptote was not reached after stimulation times of 100".

In the present study, 245 applicant industrial apprentices (ages between 16 and 18) were given four trials at periods of stimulation of 15", 45", 90", and 120", duration of after-effect being assessed after each trial. Order was the same for all Ss. Trials were separated by 30" rest pauses. The spiral, which has been described in Eysenck (1957), was rotated at 100 rpm, and the spiral was viewed in good day-light illumination from a distance of 9 ft. Means and SDs for the four periods were as follows: 13.06 ± 5.46; 14.54 ± 5.49; 16.97 ± 7.00; and 19.05 ± 9.35. These points lie closely about a straight line the function of which is:  $Y = 11.75 + .0595x$ . Curvature in this population would therefore appear to lie in the region of stimulation periods less than 15", and the asymptote, if any, above the 120" mark.

The four trials were correlated with each other to obtain reliabilities for the test. The obtained product-moment correlations range from .64 to .85, and quite consistently, those trials closer together in time correlate more highly than do trials less close together. Correlations were also run with scores on the E and N scales of the Maudsley Personality Inventory (Eysenck, 1959), but no consistent or significant results were obtained; this failure may be due to the fact that Ss were applicants for a training course, and might therefore have falsified their questionnaire responses in order to increase their eligibility.

### REFERENCES

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