PERSISTENCE, PERSONALITY, AND MOTIVATION

C. G. COSTELLO AND H. J. EYSENCK¹ University of London

A review o fthe literature on persistence (Eysenck, 1960b) discloses confusion in relating objective measures of this trait to personality. Theoretically, we may subdivide persistence tests according to the negative drive which opposes continuation, i.e., "pain" in the case of physical tests (Thornton, 1939; Rethlingshafer, 1942; MacArthur, 1955), "boredom" in the case of ideational tests, and according to the positive drive which motivates continuation, i.e., "group prestige" or "self-motivation" (Kremer, 1942; MacArthur, 1955). It may be predicted from the general theory of Eysenck (1957, 1960a) that these positive sources of motivation will apply more strongly to extraverts and introverts, respectively; it may similarly be predicted that *pain* will be a stronger negative drive for introverts, who would be expected to be less persistent on physical tasks, while boredom will be a stronger negative drive in extraverts, who would be expected to be less persistent on mental tasks. The argument in favour of this prediction has been presented elsewhere (Lynn & Eysenck, 1961), and the greater pain tolerance of extraverts has been demonstrated.

In the present study 8 groups of 9 children between 14 and 17 yr. were selected on the basis of the Junior M.P.I. (Furneaux & Gibson, 1961) such that extreme high and low scorers on neuroticism and extraversion were selected, giving four combinations. Sex was an additional variable. Each S was given 3 trials of strength on a dynamometer with 20-sec. intervals between trials, in the order R, L, R; 13 min. later 3 more trials were given in the order L, R, L. Two-thirds of the mean strength of each hand was calculated and S given two trials of persistence at this setting, S being instructed to keep the pointer as long as possible at this setting for his right hand with his right hand, and at this setting for his left hand with his left hand. The two trials correlated .80, and their mean was S's persistence score.

The mean persistence scores for extraverts and introverts were 39.30 and 30.06, respectively; those for males and females were 34.97 and 34.40, respectively; and those for low and high N scores were 35.93 and 33.44, respectively. Analysis of variance disclosed significance at the .02 level for extraversion-introversion; none of the other main effects, and none of the interactions, approached significance. It may be noted that extraverts and introverts did not differ in their pre-persistence strength records or in their age. The results support the original hypothesis, extraverts being roughly 30% more persistent than introverts.

We are indebted to the Society for Research in Human Ecology for a grant which made this study possible.

Summary.—In a study of persistence on the dynamometer of 72 children, the more extraverted were found to be significantly more persistent. No differences were found with respect to neuroticism or sex.

REFERENCES

- EYSENCK, H. J. Dynamics of anxiety and bysteria. New York: Praeger, 1957.
- EYSENCK, H. J. (Ed.) Experiments in personality. (2 vols.) London: Routledge & Kegan Paul, 1960. (a)
- EYSENCK, H. J. The structure of human personality. New York: Wiley, 1960. (b) FURNEAUX, W. D., & GIBSON, H. B. A children's personality inventory designed to measure neuroticism and extraversion. Brit. J. educ. Psychol., 1961, in press.
- KREMER, A. H. The nature of persistence. Stud. Psychol. & Psychiat., 1942, 5, 1-40. LYNN, R., & EYSENCK, H. J. Tolerance for pain, extraversion and neuroticism. Percept. Mot. Skills, 1961, 12, 161-162.
- MACARTHUR, R. S. An experimental investigation of persistence in secondary school-boys. Canad. J. Psychol., 1955, 9, 47-54.
- RETHLINGSHAFER, D. The relationship of tests of persistence to other measures of continuance of activities. J. abnorm. soc. Psychol., 1942, 37, 71-82.
- THORNTON, G. R. A factor analysis of tests designed to measure persistence. *Psychol. Monogr.*, 1939, 51, 1-42.

Accepted February 18, 1961.