

PREFERENCE JUDGMENTS FOR POLYGONS, DESIGNS, AND DRAWINGS

H. J. EYSENCK

University of London

Summary—484 Ss were administered 10 pairs of polygons, 10 pairs of designs, and 10 pairs of drawings from the Maitland-Graves Design Judgment Test, with instructions to indicate which of each pair they preferred. Pairs were constructed in each case by selection from larger numbers of items, in such a way that one was considered aesthetically superior to the other by a majority of judges; in this way a "correct" choice was established. Also administered were personality inventory items purporting to measure extraversion and neuroticism; the age, educational status and salary of each participant were noted. Factor analysis was performed on the intercorrelations between these various items, and relatively independent factors representing E, N, and the different aesthetic tests were found; there was no evidence that the polygon, design, and drawing tests were correlated with each other or associated with personality.

Factorial studies of polygonal figure preferences (Eysenck, 1968; Eysenck & Castle, 1970), preferences for design (Eysenck, 1971), and preferences for the drawings in the Maitland-Graves Design Judgment Test (Eysenck, 1967) have demonstrated that in each case there is a strongly marked general factor, indicating that judgments are based on a common aesthetic ability within each test, predisposing Ss to agree to a greater or lesser degree with the "correct" order; artistic training does not seem to have much to do with this ability (Eysenck & Castle, 1970, 1971; Eysenck, 1970). The question now arises whether the abilities involved in these three types of tests are similar or identical, or whether each is relatively specific to the type of test material.

Method.—For the purpose of this experiment, 10 pairs of items were selected from each test. For the Maitland-Graves Test, the 10 pairs of items having the highest factor loadings on the first factor (Eysenck, 1967) were selected, and put on slides. For the polygons test, 10 items with high liking scores were paired with 10 items with low liking scores, as determined in our previous work. Similarly, for the designs test, 10 items with high liking scores were paired with 10 items with low liking scores, also as determined in our previous work. These 30 slides constituted the test; types of stimuli were presented in alternating order, and Ss were instructed to write down which of the two stimuli they preferred in each case. Also administered were 6 personality inventory items purporting to measure extraversion and 6 items purporting to measure neuroticism.

The tests were administered to 184 Ss, 75% of whom were men; this population constituted a reasonable approach to a random sample of adult Ss, having been assembled by a market research firm for the testing of advertisements, by means of a selection procedure aiming at representativeness of sam-

pling. Undoubtedly the sample fell short of true representativeness, but for the present purpose this is probably not important. (The disproportion in the number of men and women was intentional.) For each *S*, age, terminal level of education, and present salary were ascertained. All items were intercorrelated, and the resulting matrix factor analyzed by principal components methods and rotated into simple oblique structure by Promax. Separate analyses were carried out for men and women, but as these were very similar to the combined analysis, only the results of the latter are reported.

Results.—Six factors were extracted, and after rotation all were clearly interpretable. Two factors had high loadings exclusively on the E items (loadings ranging from .45 to .67) or on the N items (loadings ranging from .39 to .75). N also had a negative loading with education (— .26). A third factor had high loadings exclusively on the 10 Maitland-Graves items; loadings ranged from .43 to .67. This factor produced a negative loading for age (— .32) and a positive one for education (.34) but not for salary (— .02); high scores on the Maitland-Graves test items are found in the older and better educated *Ss*. Factor 4 had high loadings exclusively on the 10 Design items, with loadings ranging from .26 to .71, the majority being in the fifties and sixties. Age and education also had loadings on this factor in the same direction as on the previous one but much reduced (— .10 and .12). The fifth and sixth factors have high loadings on the polygon items, which thus appear to break down into two; the principle of the division is not too clear, although it may be associated with the division into simple and complex polygons noted previously (Eysenck & Castle, 1970). Age correlates negatively (— .17), education positively (.20) with one of these two factors.

These factors are oblique; do the correlations between them provide any evidence for or against the specificity or generality of aesthetic sensitivity? The correlations between the aesthetic factors are all low, that between the two polygon factors (.18) being the highest. These figures do not suggest any strong relation between the different kinds of aesthetic sensitivity involved, and invite the conclusion that they are all largely specific for the kind of material judged. The correlations between the aesthetic factors and the two personality factors are vanishingly small, suggesting that personality has little to do with the various types of aesthetic sensitivity tested, at least insofar as E and N are concerned. It is of course unwise to base too far-reaching conclusions on such a small selection of stimulus materials, but the selection was itself based on previous studies of much larger numbers of stimuli, and the principles of preference within each set of stimuli appear identical in the present sample as in those tested previously—in each case the "correct" item was again preferred by the majority of *Ss*. Provisionally, then, we must conclude that aesthetic sensitivity to stimuli of the kind used in this experiment is relatively specific and does not extend from one set of stimuli to another.

REFERENCES

- EYSENCK, H. J. Factor analytic study of the Maitland-Graves Design Judgment Test. *Perceptual and Motor Skills*, 1967, 24, 73-74.
- EYSENCK, H. J. An experimental study of aesthetic preference for polygonal figures. *Journal of General Psychology*, 1968, 79, 3-17.
- EYSENCK, H. J. Application of the Maitland Graves Design Judgment Test to professional artists. *Perceptual and Motor Skills*, 1970, 30, 589-590.
- EYSENCK, H. J. Factors determining aesthetic preference for geometrical designs and devices. *British Journal of Aesthetics*, 1971, 11, 154-166.
- EYSENCK, H. J., & CASTLE, M. Training in art as a factor in the determination of preference judgments for polygons. *British Journal of Psychology*, 1970, 61, 65-81.
- EYSENCK, H. J., & CASTLE, M. A comparative study of artists and non-artists on the Maitland-Graves Design Judgment Test. *Journal of Applied Psychology*, 1971, in press.

Accepted February 10, 1972.