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CULTURAL RELATIVITY IN AESTHETIC JUDGMENTS: AN EMPIRICAL STUDY

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Summary.—179 British students rated the aesthetic appeal of 131 designs and 135 polygons on a 5-point scale. Similar judgments were made by 115 Japanese students who did not, however, rate both designs and polygons but rather one or the other set. Correlations between mean ratings for the designs and polygons were uniformly positive and high, suggesting the comparative absence of cultural factors determining aesthetic judgments in this field. The data were interpreted as favouring Eysenck's theory of a general factor of aesthetic judgment in the visual field.

Eysenck (1957) put forward the suggestion of a general aesthetic factor in visual art which differentiates persons according to their aesthetic sensitivity and which approximates to some form of "absolute" criterion. Empirical justification for such a factor has been published (Eysenck, 1940, 1941b, 1968, 1971; Eysenck & Castle, 1970) and some evidence has been reviewed to show that as far as colour preferences are concerned there are distinct trans-cultural similarities (Eysenck, 1941a). The present study concerned a comparison of the aesthetic preference judgments of British and Japanese students, and the prediction was made from Eysenck's general theory that there would be considerable similarities between the preferences of the samples studied.

The stimulus material consisted of 131 designs, photographed and put on slides; these were taken from Hornung's (1932) book, and illustrations of the actual designs chosen are given in Eysenck (1971). A second set of stimuli consisted of 135 polygons, similar to those published by Birkhoff (1932) but specially drawn for the purpose of this study; these too were put on slides. *Ss* were tested in small groups and rated each stimulus on a 5-point scale, ranging from 1 (don't like) through 2 (like a little bit), 3 (like) and 4 (like a lot) to 5 (like very much indeed). There were 179 British students, mostly female in the proportion of 3 to 2; these rated all the stimuli in the two series. Forty-five Japanese students rated the polygons (17 male and 28 female), and 70 rated the designs (43 male and 27 female). None of the students in either group had had any special training in visual arts.

Means for the polygons were slightly higher for the Japanese, but means for the designs were slightly lower than for British *Ss*. The actual values, with *SD*s, were as follows, giving them in the order British, male Japanese, female Japanese: Polygons—2.16 ± .43, 2.66 ± .56, 2.39 ± .40; Designs—2.58 ± .54, 2.27 ± .44, 2.46 ± .33. The question of whether the Japanese samples are large enough for their means to be sufficiently representative for the calculation of correlations was answered by calculating the mean intercorrelations between *Ss*, for both polygons and designs. This was done by using a formula given by Kaiser (1968) which makes use of the highest eigenvalue characterising the matrix of intercorrelations; from this it is then possible, using a formula given by Eysenck (1939), to calculate the correlation between the sample mean order of ratings and the "true" mean order. These correlations all exceeded .9, and hence it seemed per-

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missible to proceed with the main calculations. The size of correlations within groups was similar for the British and Japanese samples, averaging about .2.

For polygons, the correlations between the British sample and the male and female Japanese samples were .79 and .69; with the combined Japanese sample the correlation was .82. This should be compared with a correlation of .69 between the two Japanese samples. (It should be noted that in previous work no sex differences had been observed in ratings for polygons.) For the designs, all the correlations are somewhat lower. The correlations between the British sample and the male and female Japanese samples were .50 and .56; with the combined Japanese sample the correlation was .60. This should be compared with a correlation of .62 between the two Japanese samples. These correlations are far from unity, but the correlation between the total British and Japanese samples is quite close to that between the two Japanese samples for the designs, and considerably above it for the polygons. In fact, for the polygons the correlation is just about as high as one found between two British samples (Eysenck & Castle, 1970). These figures suggest that cultural relativity is largely absent for stimuli of the kind here considered and that as in the case of colours here is considerable similarity in aesthetic judgment between different cultures. Obviously these conclusions cannot be extrapolated to other cultures or other types of stimuli, but insofar as the results are relevant to the theory they are in good accord with it. Less "culture fair" tests, using representational stimuli, might not give similar results, but this would not necessarily speak against the theory, which is concerned more with the formal aspects of art.

REFERENCES

BIRKHOFF, G. P. *Aesthetic measure.* Cambridge, Mass.: Harvard Univer. Press, 1932.

EYSENCK, H. J. The validity of judgments as a function of the number of judges. *J. exp. Psychol.*, 1939, 25, 650-654.

EYSENCK, H. J. The general factor in aesthetic judgments. *Brit. J. Psychol.*, 1940, 31, 94-102.

EYSENCK, H. J. A critical and experimental study of colour preferences. *Amer. J. Psychol.*, 1941, 54, 385-394. (a)

EYSENCK, H. J. The empirical determination of an aesthetic formula. *Psychol. Rev.*, 1941, 48, 83-92. (b)

EYSENCK, H. J. The psychology of aesthetics. In H. J. Eysenck (Ed.), *Sense and nonsense in psychology.* London: Penguin Books, 1957. Pp. 308-339.

EYSENCK, H. J. An experimental study of aesthetic preferences for polygonal figures. *J. gen. Psychol.*, 1968, 79, 3-17.

EYSENCK, H. J. Factors determining aesthetic preferences for geometrical designs and devices. *Brit. J. Aesthetics*, 1971, in press.

EYSENCK, H. J., & CASTLE, M. Training in art as a factor in the determination of preference judgments for polygons. *Brit. J. Psychol.*, 1970, 61, 65-81.

HORNUNG, C. P. *Handbook of designs and devices.* New York: Harper, 1932.

KAISER, H. E. A measure of the average intercorrelation. *Educ. psychol. Measmt*, 1968, 28, 245-247.

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