

## PERSONALITY FACTORS AND PREFERENCE JUDGMENTS

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IN a previous paper, certain correlations were reported between the temperamental characteristics of a number of observers and their scores on a test of aesthetic appreciation, the *K* test.<sup>1</sup> As these correlations were based on a comparatively small number of cases, and as the temperament test used was not quite in line with recent developments, the experiment was repeated with certain modifications.

**Preference Test.** The form of the *K* test used consisted of fifteen pairs of pictures (twelve pairs of landscapes, and three pairs of portraits) chosen in such a way that the two pictures forming each pair dealt with much the same subject, but in two different ways. One treated the subject in the modern, colourful way associated with Cézanne, van Gogh and Modigliani, the other in the more academic manner of Hobbema, Constable and Wilson. The test is scored in terms of preference for the modern school.

**Temperament Test.** The Nebraska Personality Inventory was used in this investigation. This test was constructed by Guilford on the basis of his work on personality factors *S*, *E* and *M*.<sup>2</sup> For reasons which will become apparent later, it was decided not to use Guilford's scoring key, but rather to derive a scoring key from a re-analysis of the original correlations on which Guilford's personality factors are based. (I am very much indebted to Prof. Guilford for his kindness in sending me his original data and other material, without which such an analysis would not have been possible.)

**Observers.** The observers taking part were university students, W.E.A. students, and 'middle-class' people unconnected with academic life. Their ages ranged from seventeen to around fifty; sexes were distributed roughly equally. (I want to record my gratitude to Dr. P. E. Vernon, who very kindly gave the tests to a number of Scottish students.)

**Results.** Most modern workers seem to regard some such general dichotomy as introversion-extraversion as definitely established in the temperamental field. Guilford's analyses, which revealed no trace of such a general factor, were therefore received with some surprise. It would appear that the explanation of the absence of a general factor of this kind lies in the method of analysis he adopted; by using Thurstone's principle of rotation even a very strong general factor is invariably obliterated. In fact, the situation seems to be exactly parallel to that which prevails in the analysis of cognitive tests, where also the existence of a general factor is disputed by the adherents of Prof. Thurstone.

In the field of cognition it has been shown that the use of Prof. Burt's group-factor method makes it possible to arrive at a compromise between the claims of the 'general factorists' and the 'group factorists';<sup>3</sup> this method enables us to assess quantitatively the relative importance of these various factors. It appeared reasonable to expect that an application of this method to the data collected by Guilford would lead to a similar compromise between those who claimed to have proved the existence of a general factor of introversion-extraversion, and those who favoured analysis into group-factors only. When an analysis by means of Burt's formula was carried out, a comparatively strong general factor appeared which

accounted for 9.5 per cent of the variance and could easily be identified with introversion-extraversion; in addition, three group factors were extracted which accounted for 3.9, 6.4, and 3.5 per cent of the variance respectively. These group factors resembled closely Guilford's personality factors *S*, *E* and *M*.

(A similar result appeared when another research of Guilford's was re-analysed.<sup>4</sup> Here, because of a great deal of overlap, Burt's group-factor method did not seem applicable, and his general-factor method was used. A general introversion-extraversion factor was found to account for 14.8 per cent of the variance, while two other factors accounted for 8.7 per cent and 5.5 per cent respectively. The first of these factors opposed traits characteristic of depression and of what Guilford calls *rathymia*; the second factor opposed traits concerned with *thinking* and traits concerned with *feeling*.)

The correlation between the *K* test and extraversion, as tested by those items in the Nebraska Inventory for which scores could be derived from our analysis, was highly significant, being more than five times its probable error. For fifty observers it was  $0.43 \pm 0.08$ . This confirms the results reported earlier.

Only one of the correlations between the *K* test and the three group factors *S*, *E*, and *M* even approaches significance (according to Fisher's test of significance for small samples, a correlation of 0.27 would be significant). These correlations are: *K* and *S* = -0.26; *K* and *E* = -0.05; and *K* and *M* = 0.08.

The observers were asked whether they were conservative or radical politically; it was found that radicalism correlated with the *K* test to the extent of  $0.34 \pm 0.08$ , which is definitely significant, and also supports a previous finding<sup>1</sup>.

One further point may be worth noting. Dr. P. E. Vernon, who had quite independently found evidence for a factor of the kind described earlier<sup>1</sup> found that those observers who had 'good taste' in painting tended to prefer the modern works, while the others tended to prefer the older artists. The observers in this experiment were asked if they were very much interested in art, interested in art, or not at all interested in art. The average scores of these three groups in the *K* test were respectively 8.8, 5.9, and 4.0, thus indicating that those who were very much interested in art tended to prefer modern art, and that lesser degrees of interest in art were accompanied by less liking for modern art. It cannot be maintained, of course, that those who say that they are very much interested in art are *eo ipso* those who have good taste, but so far as we can deduce anything at all from these results, they would seem to bear out Dr. Vernon's observation.

**Conclusions.** It has been confirmed that the *K* test correlates positively with extraversion and with radicalism. No significant correlations were found with personality factors *S*, *E* or *M*, although a negative correlation with *S* approached significance. Preference for modern art tended to be associated with general interest in art.

<sup>1</sup> Eysenck, H. J., *Brit. J. Psychol.*, **31**, 262 (1941).

<sup>2</sup> Guilford, J. P., and Guilford, R. B., *J. Psychol.*, **2**, 109 (1936).

<sup>3</sup> Eysenck, H. J., *Brit. J. Educ. Psychol.*, **9**, 270 (1939).

<sup>4</sup> Guilford, J. P., and Guilford, R. B., *J. Abn. Soc. Psychol.*, **34**, 21-36 (1939).