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A NEW VISUAL AESTHETIC SENSITIVITY TEST (VAST): II. CROSS-CULTURAL COMPARISON BETWEEN ENGLAND AND JAPAN

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Summary.—A comparison was made of the scores of 171 Japanese boys and 156 Japanese girls, and of 204 English boys and 165 English girls, on the Visual Aesthetic Sensitivity Test. Also compared were 145 male and 163 female Japanese students, with 38 male and 73 female English students. Japanese children had scores significantly higher than English children, while Japanese students had scores significantly lower than English students. There was little evidence of age increments in score for either group of children. Difficulty levels of the 42 item-pairs were very similar in the two cultures, as were internal (split-half) reliabilities. It is concluded that cultural differences between the two countries, as far as visual aesthetic appreciation is concerned, seem at best minimal.

In the first article in this series, we have introduced a new test of visual aesthetic sensitivity (Götz, *et al.*, 1979). This test has 42 pairs of non-representational drawings, one of each pair being aesthetically superior to the other; the task of the subject is to identify which of the two drawings is the superior one. The definition of aesthetic superiority, and the validity of the test, have both been discussed in the first article. In this paper we are concerned with the transcultural validity of the test. Assuming that the principles on which the test was constructed transcend training and racial differences, we would expect that Japanese subjects, in spite of their being brought up on quite different visual artistic expressions, would have similar scores on the VAST and that the difficulty levels of the various items would be very similar to those found in England in the original testing. If the properties which constitute aesthetic superiority in one country are different than those in another country, being produced by training and experience rather than by innate factors, then considerable difference might be found in comparing English with Japanese students and children.

One-hundred and seventy-one Japanese boys and 156 Japanese girls, aged 11 to 14 yr., were tested, using the same method as previously used on 204 male and 165 female English children of similar age. Also tested were 145 male Japanese students and 163 female Japanese students and compared with 38 male and 73 female English students. Table 1 gives the scores for the Japanese children. These should be compared with the mean of the English children,

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which was 30.40, with a *SD* of 4.88. The mean scores of the Japanese boys and girls are significantly higher than those of the English children, and indeed every age group in the Japanese sample has higher scores than the English children, with the exception of the 12-yr.-olds; it is not clear why this particular group has fallen behind the Japanese average.

TABLE 1

MEANS AND STANDARD DEVIATIONS BY AGE FOR BOYS AND GIRLS

Boys			
Age	*n*	*M*	*SD*
11	39	32.41	5.11
12	46	30.57	4.73
13	46	33.80	5.06
14	40	35.75	3.35
Total	171	33.07	5.01
Girls			
Age	*n*	*M*	*SD*
11	38	33.16	5.36
12	42	30.88	5.18
13	40	36.25	3.95
14	36	35.64	3.99
Total	156	33.91	5.16

Table 2 gives corresponding data for the English and Japanese students. Here it will be seen that the English students are significantly superior by t test ($p < .001$), both the male and the female groups. In fact, the Japanese children are superior to the Japanese students, both males and females, while the English students are superior to the English children, both the males and the females. It is not clear why there should be such age differences, running in opposite directions for the Japanese and English groups. It is possible that chance sampling differences might have produced this effect, but it is of course also possible that the original aesthetic sensitivity of Japanese children is spoiled by their education, while that of English children is enhanced. This does not seem a very likely hypothesis, and we must await further evidence before admitting the effect to be a real rather than an artificial one.

TABLE 2

MEANS AND STANDARD DEVIATIONS OF ENGLISH AND JAPANESE STUDENTS

Group	*n*	*M*	*SD*
English male students	38	35.79	4.66
Japanese male students	145	31.72	4.48
English female students	73	34.68	5.26
Japanese female students	163	32.38	4.09

The comparison of English with Japanese children and adults suggests that the Japanese are certainly not inferior with respect to their visual aesthetic sensitivity, and may indeed be superior. At least as far as the fairly large samples of children are concerned the superiority of the Japanese seems fairly clear. As far as the students are concerned the English sample is perhaps too small to be definite about their superiority, although the significance level of the difference is acceptable. It might be best to leave any final decision about relative superiority until the findings of this study have been replicated. Any differences which might be found would not be likely to be large on the basis of present results, and there certainly seems to be ample evidence here for a cross-cultural factor in the evaluation of the test objects included in our test.

We now turn to a discussion of the difficulty levels of the items, defined as the percentage of correct responses given by each of the groups tested to that particular item. The cross-cultural comparisons should be seen in the light of the within-English sample correlations. Scores for male and female children correlated .90; for male and female students .65; and the same-sex child-student correlations were .70 and .71, respectively, for males and females. The differences in size of correlations are almost certainly due to the varying numbers of the samples, i.e., the small number of students as compared with the large number of children. Clearly, the difficulty level of a given item is more accurately defined in terms of a large group than in terms of a small group.

Results of cross-cultural and within-Japanese comparisons are given in Table 3. It will be seen that on the whole the correlations are similar to those within the English sample, particularly when attention is paid to the varying numbers in the samples considered. Items which are difficult for English children or students are also difficult for Japanese children and students, and items which are easy for one group are also easy for the other. These results support our view that there are few if any real differences in the aesthetic rules governing the appreciation of visual aesthetic items in the two cultures.

We next turn to the reliability (corrected split-half) of the test. For English students this was .84; for the children it was in the seventies for the various age and sex groups. For the Japanese groups, reliabilities were .70 and

TABLE 3

PEARSONIAN CORRELATIONS BETWEEN GROUPS

Comparison	r
Japanese boys vs Japanese girls	.92
Japanese male vs female students	.86
Japanese boys vs Japanese students (male)	.86
Japanese girls vs Japanese students (female)	.86
Japanese boys vs English boys	.73
Japanese girls vs English girls	.87

.71 for male and female students and .75 and .81 for male and female children. It is curious that here also, as in the case of the scores, the children do better than the students, while in England the students did better than the children. As before, no ready explanation comes to mind. Possibly students are more highly selected, depending on faculty, than are children who constitute more of a random sample, so that other groups of students might give dissimilar results.

A Guttman scalogram analysis was performed on the Japanese data to discover whether the scale items covered a single continuum. Coefficients of reproducibility were for male and female school children .84 and .86 and for male and female students .82 and .82. Scalability coefficients for the four groups were .23, .24, .20, and .20. When seen against the chance reproducibility coefficients of .84, .86, .82, and .83, it is not surprising that the scalability coefficients are rather small. From the point of view of scalability the test is clearly not very successful. This is probably due to the large number of very easy items; these are practically equivalent and hence reduce reproducibility. It may be possible to improve the scale by eliminating some of the easier items, and by adding some more difficult ones. The latter possibility is being explored. The former can be checked by using the available data. We found that scalability figures could be raised by eliminating 10 easy items.

The data here summarized indicate that either the visual aesthetic sense which is being tested by the VAST is largely innate or else aesthetic teaching in England and Japan is conducted along pretty much the same lines, emphasizing the same rules. If the latter were the case, we would expect marked score improvements with age; of these there is no evidence in either country. We would also expect students to be much better than children, particularly young children; of this too there is little evidence. There is little teaching of explicit rules which could be applied to the 42 items of this test; the apprehension of the correct and incorrect versions of each item seems much more intuitive than formally explicit. We suggest that we are here dealing with a largely innate ability which, as we have shown in the first paper in this series, is largely independent of intelligence and personality and which governs our aesthetic choices. The proper proof of this hypothesis must of course lie in the field of twin and other genetic studies, and to such an experiment we hope to turn in due course.

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