

On the intelligence of the Japanese and other Mongoloid peoples

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Summary—The American Primary Mental Abilities Test and a Japanese Intelligence Test were given to a sample of children in Northern Ireland. One test was calibrated against the other in order to compare the mean IQs in Japan and the U.S.A. The result indicated that the average Japanese child would obtain a mean IQ of approximately 109 on the American test.

This paper presents some data on the mean IQ of the population of Japan compared with that of the United States. In a previous paper some calculations for such a comparison were made by using the standardisations in Japan of the three Wechsler tests (Lynn, 1977a). The results showed that the mean IQ in Japan is approximately 106.6, considered in relation to a mean American IQ of 100.0. Furthermore, the Japanese American difference appeared greater in younger and more recently tested cohorts, where it reached 11.7 IQ points. It was considered that these results were sufficiently interesting to justify the collection of further data on the apparent disparity between the mean IQ in Japan and the United States.

Almost all comparative studies of the mean IQ of populations employ a procedure where a test devised and standardised in one country is subsequently standardised in another. This procedure has been criticised on the grounds that tests are culture biased in favour of the country in which they are originally devised and standardised. To avoid this criticism we have in the present study adopted a different procedure which is believed to be a methodological innovation in this area. This procedure involves the administration of both a Japanese and an American intelligence test to a sample from a third country. In this way both tests are administered on neutral ground and culture bias is controlled. The statistical treatment involves the calibration of one test against the other and the disparity in the means can then be calculated.

METHOD

Subjects

The subjects were 97 boys and 115 girls aged 9 and 10 (mean age 10 yr 3 months) attending four state junior schools in the town of Coleraine in Northern Ireland.

Tests

The American test was the Primary Mental Abilities. The Japanese test was the Kyoto NX 9–15 test. This consists of twelve subtests measuring all the major specific abilities. However, five of the subtests were considered too verbal or related to the culture of Japan to be translatable. Seven subtests were therefore employed, consisting of tests of spatial ability, abstract reasoning, verbal reasoning and numerical ability. The tests are similar to American and British tests of these abilities. The Japanese manual gives separate norms for each subtest so that it is quite feasible to work with seven subtests. The Kyoto NX 9–15 test was originally standardised in 1954 in the city of Kyoto and the surrounding rural area. In 1972 Sano (1974) restandardised the test and it is these 1972 norms which are used in the present study.

Statistical treatment

Sano (1974) presents data for fourth and fifth grades separately. Using the data obtained from the Coleraine sample (PMA mean = 105.40, SD = 13.18; Kyoto mean on 7 subtests = 56.47, SD = 7.14; correlation between PMA and Kyoto = 0.75) it is possible to convert the Japanese means on the seven Kyoto subtests (grade 4 mean = 59.93, grade 5 mean = 60.03) to the corresponding IQs on the PMA (the formula is given in Ferguson, 1971, p. 113). The resulting Japanese IQs are 110.19 and 110.33 respectively, giving an overall mean IQ of 110.26. This figure refers to the mean IQ of Japanese children aged approximately 10 yr in 1972, considered in relation to a United States mean IQ of 100.

It is arguable that an adjustment should be made for the dates of standardisation of the PMA and the Kyoto tests. The PMA was standardised in 1962 while the data for the Kyoto test are taken for 1972. It is possible that the mean IQ of children increased over the 10-yr period and that allowance should be made for this. There are two principal studies on this question. The first, involving an investigation restandardising two of the Wechsler subtests after a 16-yr interval showed virtually no change in mean IQ (Roberts, 1971). The second, involving the restandardisation of the Stanford-Binet in 1972 after an interval of approximately 20 yr, obtained a 2 IQ point gain among 9-yr olds (Thorndike, 1977). If this gain is apportioned equally over the period a gain of 1 IQ point can be assumed for American children for the 10 yr period 1962–1972. This would reduce the American–Japanese disparity from 10.26 IQ points (as calculated above) to 9.26 IQ points. This difference refers to children tested at the ages of 9–10 in 1972 and thus born in 1962–1963.

This calculation of the Japanese American disparity in mean IQ can be compared with our previous estimate of 11.7 IQ points derived from the Japanese standardisation of the Wechsler Pre-school and Primary Scale for Intelligence, which was also based on a sample born in the early nineteen sixties. Considering that the two estimates were derived from different tests and different measurement methodologies the degree of agreement seems reasonably satisfactory.

DISCUSSION

The present results are consistent with a number of previous studies which have indicated that Mongoloid peoples from Japan and China have mean IQs which are either about the same as those of Caucasians in the United States and North West Europe, or even a little higher. An early study to obtain this result was Yeung's (1921) investigation in the U.S.A. of a sample of Chinese immigrant children, who obtained a mean IQ of 97. Since this date several other studies of Chinese in the U.S.A. have yielded similar results (e.g. Coleman *et al.*, 1966; Jensen, 1973). It has also been found that Chinese Americans are about three times as numerous among American scientists as would be expected from their numbers in the total population (Weyl and Weyl, 1978). Outside the United States, Garth (1931) reported mean IQs of 99 for Chinese in Hawaii, 107 for Chinese in Vancouver, and 114 for Japanese in Vancouver. Later studies have found that the Chinese in Taiwan have a mean IQ of 100 (Rodd, 1958), Chinese in Singapore a mean IQ of 110 (Lynn, 1977b), and Japanese on the Hawaiian island of Kauai a mean IQ of 108 (Werner *et al.*, 1968). Studies of the Chinese in Hong Kong also report mean IQs higher than those in Britain (Godman, 1964; Chan, 1976).

It may be noted however that all these results are derived from studies of emigrants from Japan and China or of somewhat peripheral populations in Taiwan and Hong Kong. Perhaps the chief interest of the present study is that it gives a measure of the mean IQ of the population of mainland Japan and confirms the indications from the previous studies to the effect that the mean IQ of Japanese and Chinese is certainly as high as that of Caucasians from North West Europe and the U.S.A. and possibly higher.

One of the more general points of significance arising from the results of studies of the intelligence of the Japanese and Chinese is the doubt it casts on the thesis that American intelligence tests are biased in favour of white middle class Americans. Indeed, the good scores obtained by Mongoloid peoples from so many different parts of the globe must surely rule out this as a serious argument.

Perhaps the most significant conclusion to be drawn from these results is the apparent robustness of the intelligence of the Japanese and Chinese across a wide range of cultures. Whether they come from California or mainland Japan, from Singapore, Hong Kong or the Hawaiian islands, samples of these populations invariably obtain mean IQs either at or above the Caucasian mean. These results would seem to suggest that quite considerable variations in social environment have relatively little effect on the intelligence levels of these ethnic groups.

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