



## NOTES AND SHORTER COMMUNICATIONS

## Intelligence in Taiwan

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**Summary**—The Standard Progressive Matrices was standardised in Taiwan in 1989 on 2476 nine- to 12-year-olds. The results are compared to those of the British standardisation sample. It is estimated that the mean IQ of the Taiwanese children is 104.7. © 1997 Elsevier Science Ltd. All rights reserved.

## INTRODUCTION

During the last 20 years evidence has accumulated to suggest that the Japanese and Chinese tend to obtain slightly higher mean IQs than the Caucasian peoples of the United States and Europe. In a review of 25 studies up to 1990, the median IQ of the Japanese and Chinese was found to be 105 (Lynn, 1991). Nevertheless, doubts have been expressed about the validity of the conclusion that East Asian populations have mean IQs a little higher than those of Caucasians. For instance, Brody (1992) writes that “the samples on which the comparisons are based have not always been drawn in the same way, that the tests may have been administered differently in different countries, and that it is obviously difficult to arrive at conclusions about cross-cultural differences in performance on tests when these differences are not based on data sets that are explicitly collected for the purpose of cross-cultural comparison” (p. 313). Brody is not alone in expressing these reservations and only the continued accumulation of evidence can resolve the issue. The present paper presents data on the mean IQ of the Chinese in Taiwan as a further contribution to this question.

Hitherto only two studies have been published on intelligence in Taiwan. The first was carried out approximately 40 years ago by Rodd (1959) and entailed the administration of Cattell's Culture Fair Test to 1290 16-year-olds. The mean IQ obtained by the sample, in relation to a Caucasian mean of 100, was 105. The second study was carried out in the early 1980s by Stevenson, Stigler, Lee, Luckner, Kitamura and Hsu (1985) and consisted of the administration of 10 cognitive tests to approximately 240 six- and 10-year-old children in Taipei, the capital city of Taiwan, in the American City of Minneapolis and also in the Japanese city of Sendai. The authors do not sum the tests to give a single IQ for the samples but they argue that in general there were no differences between them. There is therefore an inconsistency between the two existing studies.

## METHODS AND RESULTS

Raven's Standard Progressive Matrices was standardised in Taiwan in 1989 on a representative sample of 2476 children aged 9 to 12 years by Miao (1993). The table of norms based on this standardisation has been published by Raven, Court and Raven (1996, p. 69). Table 1 shows the relevant data for seven age groups. The table displays the numbers of Ss in each age group, the mean scores obtained on the test, the British percentile equivalents of these mean scores derived from the British standardisation sample of 1979 obtained from Raven (1981), and the British IQ equivalents of the percentiles. The mean of the seven IQs in the last column of Table 1 is 106.6. This figure represents the mean IQ of the Taiwanese sample in relation to a British mean of 100.

The Taiwan standardisation data were collected 10 years later than the British data. Mean IQs have been rising over time and this means that the British IQ would have been higher at the time of the Taiwan standardisation. The magnitude of the secular increase in mean scores on the Progressive Matrices in Britain has been calculated at 1.9 IQ points per decade over the years 1938-1979 (Lynn & Hampson, 1986). It seems reasonable to project this rate of increase forward for the decade

Table 1. Mean scores of Taiwanese children on the Standard Progressive Matrices and equivalent British percentiles and IQs

Age	Number	Score	Br. Percentile	IQ
9.5	272	39	67	106
10.0	400	38	50	100
10.5	398	41	62	105
11.0	396	43	67	106
11.5	400	45	71	108
12.0	400	46	76	111
12.5	210	46	74	110

1979–1989. This means that to equate the Taiwanese and British means for the year 1989 we need to subtract 1.9 IQ points from the Taiwanese mean, giving them a mean IQ of 104.7.

#### DISCUSSION

The result clearly supports the early study of Rodd (1959) and, more generally, most of the other studies showing that the mean IQ obtained by East Asian peoples is about five IQ points higher than that secured by Caucasians. It is an interesting question why the Stevenson *et al.* (1985) study should be unique in failing to obtain this result. Probably the explanation lies in the choice of Minneapolis as the city from which to draw a representative sample of American children. Virtually all the children in the Stevenson *et al.* study were White and there is evidence that Whites in Minnesota, in which the city of Minneapolis is situated, have a mean IQ a little higher than the American average. It has been noted by Jensen (1973, p. 64) that the percentage of Whites drafted for the military and failing the Armed Forces Classification Test in Minnesota was the second lowest of all American states, suggesting an upward shift of the normal curve for intelligence. Flynn (1980) estimates the mean IQ of Whites in Minnesota at 105. If this figure is accepted, the mean IQ in Taipei and Sendai must also be 105 and the Stevenson *et al.* results become consistent with the rest of the research literature on the intelligence of the Chinese and Japanese.

It has to be admitted that the methodology of the present study does not conform to the requirements of Brody, noted in the Introduction, that to be convincing cross-cultural studies have to be specifically designed to afford a comparison between two populations. This was not the objective of the Taiwanese standardisation of the Progressive Matrices, which was carried out to provide normative standardisation data for Taiwan. Nevertheless, perhaps Brody is being too demanding and it is legitimate to make comparisons when representative standardisation samples are drawn from two populations, irrespective of whether or not those who collected the data had a comparative study in mind. Perhaps Brody is right in another of his arguments to the effect that possibly the testing conditions were more lenient in Taiwan and that this is the explanation of the higher scores obtained by the Taiwanese. On the other hand, it seems odd that these hypothetical favourable circumstances should have operated so consistently to the advantage of East Asian populations. My suggested reading of the data is that 26 studies all indicating slightly higher mean IQs in Japanese, Chinese and other East Asian populations is too many for happenstance and that these results probably have to be accepted as valid.

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