On the elusive nature of high Chinese achievement

Fons J.R. van de Vijver *

Tilburg University, The Netherlands
North-West University, South Africa

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A B S T R A C T
It is argued that Stankov’s proposal to view unforgivingness as underlying the combination of high educational achievement, anxiety, and self-doubt is an original way of summarizing Confucian score patterns. However, it is argued that the proposal cannot explain why reading scores in Confucian countries are not higher than in other countries and that an empirical study to test the proposal is difficult to conduct as it would require the involvement of many different countries.

In the remainder of this commentary, I first propose a number of potential explanations of the high achievement scores in mathematics and science in Confucian countries that are not mentioned by Stankov and that have received very little attention in the literature to the best of my knowledge. After this review, I evaluate the evidence in favor of Stankov’s viewpoint. My argument is that, despite the intuitively appealing nature of the reasoning, there are methodological reasons that make it difficult to confirm or refute the hypothesis. I then describe what types of studies would be needed to test this reasoning. The main methodological problem of these potential explanations of achievement differences is that they look for factors, such as cultural values, that are very different for non-Confucian and Confucian countries. These explanations tend to focus on what is unique for the Confucian countries (convergent validity) and pay insufficient attention to rule out alternative explanations.

1. Proposed factors for explaining the achievement differences

Since the first publication on the high academic performance levels of students from Confucian countries about 20 years ago, many different factors have been proposed to account for the differences. In a few cases the proposed explanations have been demonstrated in a satisfactory manner; for example, Stevenson found that Chinese children had very good short-term memory skills (digit span). Baddeley’s phonological loop hypothesis predicts that children who speak languages that have shorter words for digits, such as Chinese, have longer memory spans for digits (Baddeley, Thomson, & Buchanan, 1975). Baddeley’s model is based on the assumption that children can hold as many units in short-term memory as they can repeat in a 1.5 s time period. So, children who use shorter words for digits are expected to have longer memory spans. This model has been confirmed in a number of cross-cultural studies (e.g., Shebani, Van de Vijver, & Poortinga, 2005, 2008). Such a relatively simple explanation...
may help to explain educational achievement differences but is unlikely to provide a sufficient explanation for the differences in educational attainment. The same problem holds for innate differences in ability; I concur with Stankov’s dismissal of this hypothesis. Confucian countries in the mathematical and science domain as proposed by Stankov’s as underlying the high academic performance of Chinese children is appealing and might be well true or at the very least suggest an interesting way of explaining the high scores of Confucian countries in mathematics and science. Yet, it is not clear why unforgiveness would affect not reading. Unforgivingness might well predict a global difference in academic achievement and not a domain-specific difference. Furthermore, no direct test of the hypothesis is provided in the article and conducting such a study might be cumbersome.

3. Conclusion
Stankov’s reasoning is appealing and might be well true or at the very least suggest an interesting way of explaining the high scores of Confucian countries in mathematics and science. Yet, it is not clear why unforgiveness would affect not reading. Unforgivingness might well predict a global difference in academic achievement and not a domain-specific difference. Furthermore, no direct test of the hypothesis is provided in the article and conducting such a study might be cumbersome.

References


