

IQ & National Development

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In this article Memory Nguwi interviews Heiner Rindermann a top German Psychologist who has done a lot of research on IQ and national development.

1. In your studies what relationship did you find between average national IQ and national development, e.g. economic development? In the same answer can you define IQ for us?

Answer HR: Cognitive ability has a positive impact on innovation, production, institutional efficiency and norm obeying behavior. Therefore, economic growth, productivity, income, wealth and wellbeing are increased.

2. How confident are you with these findings given the controversy surrounding the definition of IQ?

Answer HR: My definitions: Cognitive ability comprises the ability to think (intelligence), knowledge (the store of true and relevant knowledge) and the intelligent use of this knowledge. Intelligence is the ability to think. In more detail: To solve new problems by thinking, to infer (to conclude and reason), to think abstractly and to understand. IQ is a scale usable to show intelligence and cognitive ability levels. Cognitive ability can be measured by psychometric intelligence tests (frequently less relying on knowledge), by student assessment tests (frequently with a stronger knowledge aspect), by Piagetian tasks, by analyzing behavior in everyday life and by analyzing products of such behavior.

3. You talk of cognitive capitalism; what is it and how is it important?

Answer HR: Cognitive capitalism means that in modernity (compared to traditional societies based on agriculture, stock farming, hunting and collecting) cognitive challenges become larger. Cognitive ability becomes more relevant for economic, social, institutional and cultural wellbeing and progress.

4. Is there something that can be done for those countries showing low average IQs especially those in Sub Saharan Africa?

Answer HR: Individual and national (average) cognitive ability levels can be enhanced by: Better nutrition (e.g. high quality free school lunch including meat); health programs (e.g. parasite control, clean water, toilets); family education (e.g. education for parents, reading to the child, more books); preschool education (crèche and kindergarten); school education (e.g. better educated teachers, discipline education, efficient direct instruction, central and objective tests and exams, tracking based on ability); linking advancement to ability (e.g. selection of university students based on ability tests); linking advancement in jobs to achievement; healthy lifestyle (e.g. no smoking, few alcohol); cognitive training (e.g. Klauer's inductive reasoning training).

5. How important is IQ given than some people are now arguing that EQ is more important than IQ? Is this assertion correct from your studies?

Answer HR: Cognitive ability is more important for success in domains of achievement. Emotional competence is important for dealing with stress, to stay healthy, to deal with psychological and social challenges.

6. IQ is determined by partly genetics and childhood experiences; does this mean that there is nothing we can do to improve IQ once people reach adulthood?

Answer HR: Individual differences in cognitive ability are largely explained by genetic factors (which one we do not know). However, individual development can be improved by environmental means (as described above). Those interventions can be very successful, but they hardly alter differences between persons. One example, using glasses myopic and long-sighted persons can see much better than before; nevertheless, defective vision is largely (not totally) determined by genes and age. IQ & National Development Prof. Dr. Heiner Rindermann

7. What lessons can we learn from your experience in Germany in terms of utilising findings from your research? Answer HR: It is difficult to implement research results into practice. Political decisions depend on more factors than scientific results. However, in the last decades central exams became common in nearly all German states. 8. Robert J. Sternberg in one of his addresses to the APA conference said there are “smart fools”. How can it be that someone is smart and a fool at the same time?

Answer HR: Culture, zeitgeist, ideology, social environment, habits and wishful thinking are further important factors for thinking and behavior. And of course, everybody makes mistakes. We need to learn from our mistakes. Nevertheless, less smart persons make more mistakes and smarter persons more frequently come to the right, less biased decisions.

9. Most African governments invest in post 5 year education especially higher education. If we are to get maximum value is it not important to invest in early childhood education?

Answer HR: Yes, definitely. Research done in different paradigms (by economists, psychologists and educational researchers) has shown enduring effects of early education having an impact on cognitive development, on school achievement, on personality and success in adult age.

Also see, Cognitive capitalism: Human capital and the wellbeing of nations. Cambridge: Cambridge University Press. www.cambridge.org/9781107651081. Prof. Dr. Heiner Rindermann. Professor for Educational and Developmental Psychology. Department of Psychology, Chemnitz University of Technology, Wilhelm-Raabe-Str. 43, D-09107 Chemnitz, Germany www.tu-chemnitz.de/~hr

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