

Intelligence and How to Get It: Why Schools and Cultures Count

Richard Nisbett

W.W. Norton, 2009, 282 pp, \$17.79 hardback

Review by Coert Visser

Did you read the book *The Bell Curve* (Herrnstein and Murray, 1994)? Did it make you feel uneasy because you did not (want to) agree with its conclusions but did not exactly know how to refute them? Among the conclusions were (loosely formulated): 1) that intelligence is highly important in many areas of life, 2) that differences in intelligence are largely responsible for societal stratification, 3) that differences in intelligence are largely heritable, and 4) that intelligence gaps between (racial) groups are hard to close (if that is possible at all).

If you feel uneasy about these conclusions read this book by psychologist Dick Nisbett. You will probably like this book because it will provide answers to your questions. Not in a vague way but in a very specific, well reasoned and research based way. Here are some conclusions from the book:

1. There is no fixed value for the heritability of intelligence. If the environment is very favourable to the growth of development of intelligence, the heritability of intelligence is fairly high, maybe up to 70%. If however the environment is highly variable, differing greatly between individual families, then the environment is going to play the major role in differences in intelligences between individuals (as is the case with the poor).
2. Aside from the degree to which heritability is important for one group or another in the population, heritability places no limits whatsoever on modifiability, for anybody.

3. Intelligence is developable and schools can make children smarter, for instance by using computer-assisted teaching and certain types of cooperative learning. Genes play no role at all in race differences in IQ, environmental differences do.
4. Believing that intelligence is under your control is a great start for developing intelligence.
5. Certain habits and values in cultures can be highly beneficial for learning and developing intelligence.
6. Parents can do a lot to increase the intelligence and academic achievement of children (both biological and didactic factors matter).

Intelligence and How to Get It contains many very interesting citations of studies. Here are just a few examples. One example is the work by researchers like Urie Bronfenbrenner, Mike Stoolmiller and Eric Turkheimer, whose combined studies show how the famous twin studies systematically overestimate estimates of heritability. Another interesting example is the description of the famous Flynn-effect which shows how IQ-scores can increase rapidly over generations. Also the book mentions the work by Carol Dweck, on fixed and growth mindsets. A fixed mindset is a way of viewing intelligence (and other personal characteristics) as unchangeable; either you've got it or you don't. A growth mindset is one in which personal characteristics are viewed as modifiable. Dweck's work shows that a fixed mindset leads to disregarding learning while a growth mindset leads to the tendency to put effort into learning and performing and into developing strategies that enhance learning and long term accomplishments. The book contains many more interesting findings, for instance about effective educational interventions, including evidence for which strategies work well in raising kids to be intelligent, strategies for bridging performance gaps between different ethnic groups, and more.

I think the content of this book will resonate well with many SF practitioners and researchers. This is why. In the SF approach a dynamic rather than a static view of personal

characteristics is held. As Thorana Nelson and Frank Thomas (2007), authors of *Handbook of Solution-Focused Brief Therapy*, remind us: “Change is constant and inevitable; just as one cannot not communicate, one cannot not change.” (p. 10) This optimism about change is applicable both to one’s personal circumstances as to one’s behaviour and characteristics. This is why a growth mindset fits better with an SF approach than a fixed mindset.

Until now, a dominant view in psychology had been that characteristics like intelligence and personality traits were largely unmodifiable. But the shift that now seems to be happening is that psychologists are discovering more and more that they have been too pessimistic and deterministic. People are far more capable of development than psychology has long thought. A case in point is the human brain. Scientists had long thought that the adult brain was incapable of significant structural change. Now, it has been proven that the brain is far more flexible than that and it is beyond dispute that the brain constantly changes itself as a consequence of experience. This phenomenon is called neuroplasticity. It is even possible for the brain to relocate brain activity associated with a certain function from one area to another, for instance in the case of brain damage. What is also now proven and was long thought to be impossible is neurogenesis, the generation of new cells in the adult brain. Researcher Tracy Shors (2009) and her colleagues have shown that thousands of new cells are created every day.

Beside the shift to a more optimistic view, there also seems to be a shift in psychology’s attention from a purely individualistic to a more systems oriented view of human functioning. Traditional ‘hereditarians’ downplayed the role of the environment, of efforts of schools, parents and society. The view presented in this book acknowledges the importance of such environmental factors. This is an example of how psychology may shift from a rather individualistic to a more interactional and situational perspective.

The research based perspective offered in this book allows for an optimistic stance about educational and societal issues.

It justifies an attitude of not giving up in trying to improve efforts to design better learning environments, educational designs and teaching approaches. In several ways the book justifies the optimistic, interactional and contextual view on human functioning that SF practice uses.

This book is great. Let's hope it will inspire many parents, educators, policymakers and scientists. It has the potential.

References

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