James R. Flynn. *Does Your Family Make Your Smarter? Nature, Nurture and Human Autonomy.* 2016. Cambridge University Press. 258pp.

Jim Flynn's new book, *Does Your Family Make You Smarter?,* makes a single and very important contribution to the public understanding of intelligence by giving us a new way of evaluating the extent to which environment impacts IQ. For this reason alone, the book is certainly worth reading.

Flynn points out that studies of identical twins have previously shown that intelligence is roughly 0.8 heritable, meaning that 80% of the variance in how intelligent we are is a function of genes. However, intelligence only reaches this level of heritability among adult samples. It is much lower among child samples. Children are typically slightly more or less intelligent than their parents, though due to unlikely genetic combinations there can be very significant differences. When you are a child, your parents are controlling your environment and it, therefore, reflects their innate intellectual capacity rather than yours. This can have the effect of either strongly boosting your intelligence (if your parents are much smarter than you) by pushing it to its phenotypic limit, or (if they are much less intelligent than you) retarding your intelligence by raising you in an intellectually un-stimulating environment which will push your IQ down to its phenotypic minimum.

Flynn shows – in an always lucid and enjoyable written style – that as we leave the environment of our parents, we start to create our own environment which reflects our own innate intelligence and it is at this point that the heritability of intelligence rises to 0.8. Less intelligent children raised in a highly stimulating environment, left to their own devices, will start to give-up regular reading of books, the watching of documentaries and other such pursuits that their intelligent parents may have encouraged. Smarter people will start to meet more and more people like them and spend more and more time having intelligent

conversation, rather than discussing football with their parents. And so their IQ – their intelligence compared to others of their age – will rise, while that of the less intelligent will start to fall. This is why, Flynn notes, a moderately bright child of very intelligent parents will show a great deal of promise, which will never be fulfilled.

To demonstrate the importance of your family environment in determining your adult intelligence, Flynn presents us with what he calls the 'Age-Table Method,' which is the book's main innovation. Until now, it has been argued that 'family effects' – the impact (positive or negative) of your family background on your IQ wears off by about the age of 18, as this is when you are generally fairly autonomous. Flynn looks, on various IQ tests, at the correlation between IQ scores at different ages and shows that, in fact, the influence of your family is far more pervasive than previously thought. The new method allows him to persuasively argue that family effects last until about the age of 30. This makes intuitive, as well as now empirical, sense. Your background will inculcate you with certain tastes, ways of thinking, levels of vocabulary – with words being effectively thinking tools - and general interests. These will surely have a big impact, well into adult life, on what kinds of hobbies and work you pursue and, therefore, who you socialise with. If you socialise with highly intelligent people, this will exercise your brain and increase your vocabulary. If your family were of low intelligence it will take you far longer to start interacting with such people.

It follows, and Flynn again presents this idea in a humorous and engaging way, that IQ is not fixed at any point in your life. The brain is a muscle and it can be exercised or neglected. This, he argues, is the essence of the so-called Flynn Effect – the secular rise in IQ scores across the twentieth century in Western countries. With the rise of the Industrial Revolution, we are more educated, we are forced to know more about science and how things work, we read more and we analyse more. As such, we exercise our brains more and this has been reflected in rising average IQ scores. Certain aspects of intelligence, such as

categorising, are crucially important in the modern world, so we have been practicing them, becoming better at them, and getting closer to our maximum ability in them, which was merely latent in the past.

What this means is that, at any point in life, you can improve your IQ, even if only with certain genetic limits. If you marry someone who is highly intelligent, spend your time interacting with highly intelligent people, find an intellectually stimulating hobby or vocation, or simply spend a lot of time reading, then your IQ will improve. Flynn gives the example of two doctors who retire. One keeps up with the latest medical research, attends conferences and so on. The other dedicates his retirement to playing golf. The IQ of one will increase or, at least, stay the same. The IQ of the golfer is likely to go down.

This aspect of the book is finished by round p.80 and its remainder looks at different theories of intelligence. This reviewer was confused by this decision. Surely, if this book is aimed at the general reader and is meant to be a stand-alone book assuming no knowledge of intelligence then this bit should have come first. If it is aimed, basically, at the intelligence researcher then we can probably assume they know most of the discussion on intelligence. One assumes, by the way, that it is aimed at the latter because p.161 onwards is a combination of explaining to scholars how to use the Age-Table Method and detailed statistical appendices. For this reason, Part II of this book seems rather like padding and much of it engages in rather speculative comparisons, even if they are interesting and to read.

Overall, however, *Does Your Family Make You Smarter?* is a fascinating read and offers an important means of better understanding the impact of environment on intelligence.

Edward Dutton