G is for Genes: The Impact of Genetics on Education and Achievement

Kathryn Asbury, Robert Plomin
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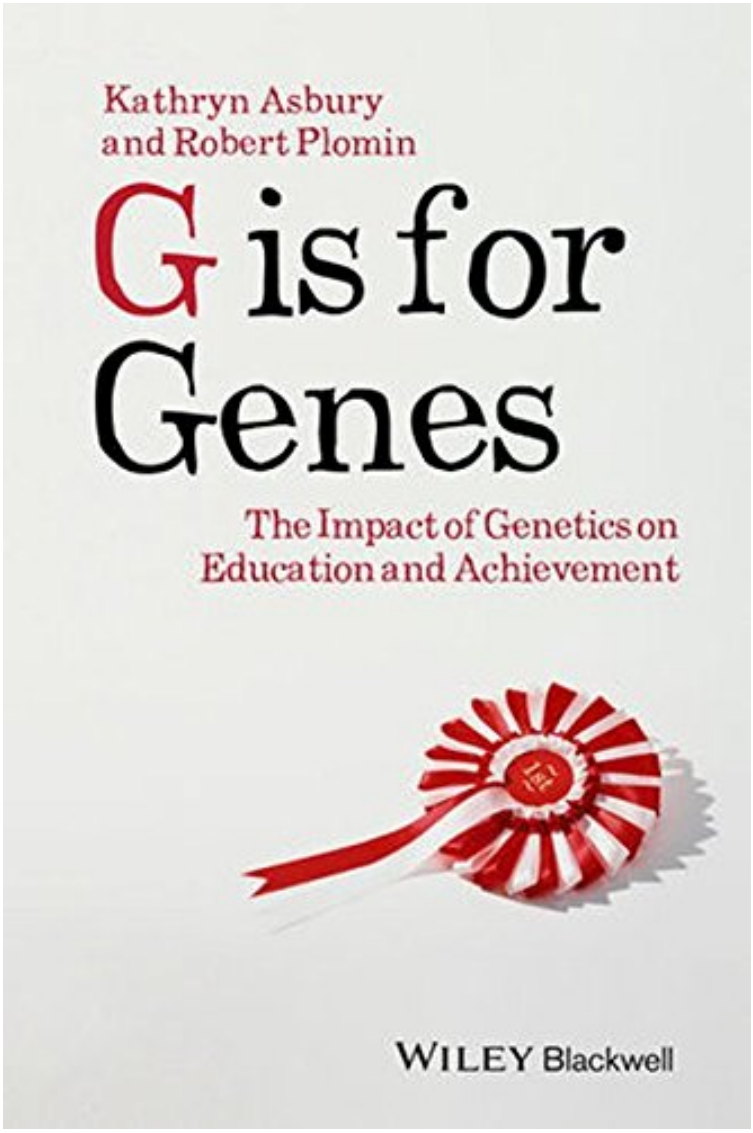

#1854804 in Books imusti 2013-12-04Original language:EnglishPDF # 1 9.10 x .48 x 6.10l, .60 #File Name: 1118482816216 pagesWiley-Blackwell | File size: 75.Mb

Kathryn Asbury, Robert Plomin : G is for Genes: The Impact of Genetics on Education and Achievement before purchasing it in order to gage whether or not it would be worth my time, and all praised G is for Genes: The Impact of Genetics on Education and Achievement:

4 of 4 people found the following review helpful. Game ChangerBy R. M. SmithThis is the most important book about public education written in perhaps the last 50 years. It has far reaching policy implications and essentially calls for a

sharp redirection of our education reform efforts. The term "personalization" has been around in education circles for a while, but here gets brought to center stage with new clarity and an unparalleled sense of importance. The authors, Kathryn Asbury and Robert Plomin, argue compellingly for an education approach aimed at helping all children reach full potential, while recognizing that not all potentials are the same due to genetic variation. They argue for both a more humane and effective approach focused on the specific needs of each individual, not the one-size-fits-all standards-based educational program that is in fashion in the United States today.The first half of the book reviews the research on the impact of genetics on achievement. As it turns out, much is known. Asbury and Plomin confirm important findings from past research and contribute new insights from extensive twin studies in the UK (twin studies being the gold standard for sorting out genetic effects). The big ideas developed throughout this section are now well-supported by the scientific evidence.The second part of the book seeks to apply the research findings to improve public education. Many interesting policy proposals are presented and worthy of consideration. But I would say that the way forward to implement personalization in public schools is less clear and needs more thoughtful discussion. But the authors have primed the pump.Unfortunately, the book is not a particularly easy read, especially for an American audience. The authors are British and many of the references are to the education system in the UK. The prose is academic and not especially artful. But the messages are rock solid. And it is relatively short, less than 200 pages.I consider this book a MUST READ for all educators and for anyone interested in the education of children. This book may usher in an exciting new era in efforts to improve our system of public education.2 of 3 people found the following review helpful. A Strong Hereditarian Take on What Makes All Learners Different!By Kevin Currie-KnightAs every educator surely knows, talk about the role of genetics in things like general intelligence, human motivation, and school performance is really dicey. I think Asbury and Plomin do a good job in writing a book that gives us a summary of what current research says without getting sidetracked by some of the controversy over genetics and its role in learning. And they also leave plenty of room to give some - albeit pretty speculative - recommendations for what teachers and policy makers can do with this knowledge (and anyone who thinks talk of genetics in education is necessarily conservative will be in for a shock at some of these).Basically, Asbury and Plomin explains that, by current research, a great many traits to do with education are at least 50% heritable. (And what that means is NOT that any person's trait is 50% genetic in origin, but that the differences between people in this trait appears to be 50% explainable by genetic differences as opposed to environmental causes). Mathematical ability, general intelligence (which, yes, does seem to beat out theories of multiple intelligences in explanatory power), and even how motivated we are to persevere in learning. (Oddly, abilities in things like historical aptitude don't seem to have any strong genetic component.) More obviously having a genetic component, of course, are learning 'disabilities' like difficulties in reading or performing mathematical operations.After the authors go through this research, they offer some potential conclusions for educators. Some of which will be surprising, because the stereotype has long been that 'strong hereditarians' are conservative in policy preference. So, the biggest conclusion the authors draw is that we all need to do a better job adapting education to the skills, weaknesses, and predilections of individuals. Yes, to some degree, everyone should be educated to a certain standard in, say, math. But if someone is not terribly good at math, genetic research leads us to believe that they probably will never get to a point of being terribly good at math. This does not mean we should give up on their learning math, but that we should build an education that focuses MORE on the things they are good in and less on their weaknesses.... until the day comes where they want to do more toward addressing their weaknesses.Another conclusion - one I am in wholehearted agreement with - is that we need to get beyond classifying people into certain 'learning disorders' and recognize that, at best, these disorders are a very loose categorization and that individuals with the same 'disability' are all very different. Dyslexia, for instance, is not one single disorder in reading (the most common myth is that dyslexics all 'flip' letters), but ANY persistent glitch a person has in their decoding skills. And instead of labeling someone dyslexic and using a formula to design interventions, we need to pay attention to what that specific learner is having trouble with and designing individualized treatments. Not terribly controversial, but it is worth hearing again.All in all, this book is decent. But I have two complaints. First, while I understand the authors' desire to not get sidetracked by debates over the political correctness of applying genetic research to learning, I am not sure they did all they could in correcting errors (like reading genetic research to entail determinism, or the public's persistent misunderstanding about what "x% heritable" means). Second, I think a good many of their recommendations will strike people as somewhat pedestrian, like the suggestion that since we are all differently situated individuals who interact with our environments differently, education needs to be more individualized. (In fact, I think the only folks who DON"T think this are the legislators!) Other recommendations, on the other hand, will seem a bit science-fiction-y, like the hope the authors have that our future will contain genetic tests that educators can use to help design the most effective individualized instruction based on a student's genome.0 of 0 people found the following review helpful. C is for it Could've been betterBy justine a.Unfortunately I picked up this book after reading 5-star book on the same topic. So maybe I'm being unfair, since they basically go over the same scientific facts. But this one was just OK, whereas the other book was outstanding. This book really needed more compelling anecdotes to illustrate the scientific findings, instead you just get lots of facts. Facts are good, I like facts. But I prefer a story.If you're a scientist or just really smart, you could read this and enjoy it.

G is for Genes shows how a dialogue between geneticists and educationalists can have beneficial results for the education of all childrenand can also benefit schools, teachers, and society at large. Draws on behavioral genetic research from around the world, including the UK-based Twins Early Development Study (TEDS), one of the largest twin studies in the world Offers a unique viewpoint by bringing together genetics and education, disciplines with a historically difficult relationship Shows that genetic influence is not the same as genetic determinism and that the environment matters at least as much as genes Designed to spark a public debate about what naturally-occurring individual differences mean for education and equality

G is for Genes is a controversial book and this is exactly why it certainly makes an interesting reading. (Birth Defects Research Part A: Clinical And Molecular Teratology, 15 December 2014) This is a most important book for educationists, teachers, psychologists, parents and learners. (South West , 1 June 2014 G is for Genes is an easy-to read book for a general audience, providing an extensive overview of findings from behavioral genetic studies related to education and achievement. (Twin Research and Human Genetics, 1 May 2014) In sum, G Is for Genesis an admirable effort by two authors who are excellent translational scholars. It alights on a number of important educational issues and does so in a reasoned and constructive manner. (PsycCRITIQUES, 7 April 2014)Link to The Guardian - 18 February 2014This book breaks down complex science in an engaging and accessible way so that the wider audience can enjoy reading about genetic research, molecular biology, genome screening and most relevantly the implications for education. (Early Years Educator, 1 February 2014) Link to BBC - The Forum - 11 November 2013Link to The Economist - 30 November 2013"This book breaks down complex science in an engaging and accessible way so that the wider audience can enjoy reading about genetic research, moelecular biology, genome screening and, most relevantly, the implications for education." Early Years Educator, February 2014 G is for Genes opened my eyes to how genes influence, but not determine, the academic pathways of our children. It should be mandatory reading for parents, teachers, and policy-makers. The book is engagingly well-written, never condescending, yet addresses the key findings from the last decades of genetics research. Professor Rob Klassen, Psychology in Education Research Centre, University of York The g-word has been a taboo in education. This defies both science and common sense, which tell us that children are not indistinguishable blank slates. Kathryn Asbury and Robert Plomin, one of the worlds leading behavioral geneticists, show that an understanding of genes, far from being scary, is indispensable to sound educational policy, promising schools that are both more effective and more humane. This may be the most important book about educational theory and practice in the new millennium, giving educators, policy-makers, and parents much to think about. Steven Pinker, Johnstone Family Professor of Psychology, Harvard University, and the author of How the Mind Works and The Blank Slate. Education has changed little over at least the last six centuries. Until everybody concerned with education - administrators, teachers, and parents - understand the material clearly presented in this book, education will not change. Understanding genetic differences and the effect of environments on them is an essential beginning for any revolution in education. Douglas K. Detterman, Louis D. Beaumont University Professor Emeritus, Case Western Reserve UniversityFrom the Back CoverIn this world of astonishing progress in molecular biology, genome screening is no longer in the realm of science fictionsome believe it may soon become the norm. Yet while most are aware of the powerful role that genetics plays in the learning and development of children, the dialogue between geneticists and educationalists has been sorely lacking. G is for Genes bridges the divide to show how this overdue debate can, in fact, lead to beneficial results in the education of all childrenand may also benefit schools, teachers, and society at large. Utilizing an engaging writing style that breaks down complex science for a wide audience, the authors draw on a wealth of behavioural genetic research to show that genetic influence is not the same as genetic determinism and how, in many instances, genes are expressed differently in different environments. The authors also present their vision of what the genetically sensitive school of the near future might look like, along with a series of policy recommendations to facilitate a consideration of genetic influence on learning in the context of schools and classrooms. Of vital interest to parents, educators, and policy makers alike, G is for Genes offers invaluable insights into one of most important pieces of the intricate puzzle that makes up a childs life.