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The neuroscience of intelligence

By Richard Haier, (Ed.)

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Dr. Richard Haier is one of the world's foremost experts on human intelligence research, and his new book, *The Neuroscience of Intelligence*, likely to raise controversies, explores the history, current state, and possible future directions of the field, from the personal vantage point of a leading researcher involved in the area for over four decades.

The book is as comprehensive as can be hoped for by its length (266 pages). Haier begins by defining intelligence, aiming to debunk persistent myths surrounding the validity of measuring intelligence, and establishing quite convincingly that intelligence is important for academic and life success. He provides evidence that suggests that differences in intelligence can be traced to genetic, epigenetic, and neural differences, and that shows the progression in intelligence research that has been made possible due to neuroimaging and other technological and scientific advances in genetics and epigenetics. The closing chapters focus on the potential of neuroscience to boost intelligence itself and the future of research in this area. The book is written in language that is accessible to non-experts, although the scientific evidence in this area (biological, neural, and genetic correlates of intelligence) is complex and Haier explicitly states as law that no story about the brain is simple.

It is in the final chapters that the most novel and controversial content of the book is found. Haier reviews cutting-edge work on the genetic and neural correlates of intelligence in the context of the question of how, going forward, researchers can better understand and potentially enhance intelligence. Haier makes clear his view that the ultimate purpose of understanding intelligence is to increase it, but laments that 'despite many claims, there is yet no way to increase any intelligence factor that survives independent replication and creates a compelling weight of evidence' (p. 164). Given these failings, he argues that new neurobiological approaches must be explored. He introduces the terms 'neuro-poverty' and 'neuro-SES' to describe a view in which poverty and near-poverty can be connected to neurobiological differences in intelligence that are impenetrable to reform via intelligence training, educational intervention, or social/cultural welfare programmes. Haier argues that as there is little evidence that intelligence can be improved through these channels, we would be doing these individuals and society a disservice by ignoring potential neurobiological interventions. Although Haier believes that social welfare programmes are valuable for other reasons, he cites the ineffectiveness of these programmes for enhancing intelligence proper and articulates ideas for new avenues by which intelligence, and thus society, might be enhanced. Haier imagines a future wherein the remaining secrets of the neuroscience and genetics of intelligence are revealed and the potential benefits of such advances are realized.

Whether the direction Haier suggests is fruitful is obviously an empirical question. Haier makes clear, though, that as challenging as such ambitious work will be to undertake, a perhaps larger challenge would be to procure funding and popular support for such initiatives to be put to the test. Although Haier's expertise as a researcher in this area is a requisite for such a comprehensive and detailed account of historical and contemporary intelligence research, his decades of experience also allows him a unique vantage in assessing how such perspectives might be received. Rather than presenting his positions about the social consequences of intelligence research in a manner that assumes them to be completely neutral factual novelties to readers, Haier seems acutely aware of the potential objections to his position. He at times mentions his discontent with the lack of funding for intelligence research and the reticence to support research that is aimed at assessing group differences. Haier is well-aware of the controversial nature of this research, is forthright in his opinions, and prefaces the book with the warning that what follows is not neutral but, in his opinion, fair.

This book, and intelligence research more generally, can be viewed as an important aspect of broader ongoing debates about the extent to which unpopular or politically incorrect views are welcomed as points of debate and worthy of academic inquiry in modern universities. In assessing the tension inherent between political correctness and the pursuit of empirical knowledge on controversial topics, Dr. Jonathan Haidt has argued that modern universities must choose between two conflicting teloi – social justice and truth. In this book, Dr. Haier makes his choice quite clear, arguing that discovering truth is the only way to bring about social justice.

Whether one agrees with his conclusions in this book, Dr. Haier has compiled an impressive collection of scientific findings and arguments that require reckoning by any person who seriously wishes to understand and perhaps improve human intelligence, and thus society. The implications of his position on social welfare, education, and the way we conceive of human ability are far-reaching and, despite their controversial nature, should not be ignored. Indeed, the issues that Haier covers surround some of the most consequential aspects of human existence. For experts from diverse domains to seriously reflect upon and discuss the implications of this book in the public sphere, rather than dismiss it as heretical, would seem the intelligent choice for society.

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Reference

Haidt, J. (2016, October 21). Why Universities Must Choose One Telos: Truth or Social Justice. Retrieved from https://heterodoxacademy.org/2016/10/21/one-telos-truth-or-social-justice/