

Norman Doidge, *The Brain that Changes Itself. Stories of Personal Triumph from the Frontiers of Brain Science* (London: Penguin Group, 2007), ISBN 9780141038872

Seeing this title on the shelf, one is immediately stuck by the assertion that the brain has a life of its own. Reading this book allows us to share in the exciting discovery of that truth, discovering how amazingly adaptable the human brain is and how its huge potential has been so little understood and under-used. It is a compelling cover-to-cover-read and a reference book to answer particular questions, for all ages and different levels of brain use.

A concise preface sets out how the author moved from his consulting room as a research psychiatrist and psychoanalyst into the field of neuroscience in a bid to understand why some of his patients were not making progress in their recovery. The perceived notion that the anatomy of the brain was fixed and machine-like was changed for the author by his research and in this book he shares with the reader his amazement and wonder at the endless possibilities of a plastic and adaptable brain. However, he adds a warning that while this research proves that brains can be more resourceful than hitherto imagined, they can also be more vulnerable to outside influences. The ensuing chapters reveal how the brain can be re-educated even after a variety of traumas, even those which appear to be irreversible due to the destruction of neuronal tissue. These conditions range from loss of balance and severe stroke damage to the relief of obsessions and explaining sexual attraction. The genuine case studies of what the author terms 'neuroplastic transformations' are interlaced with data from scientific experiments. These are sometimes carried out on animals, which readers may find difficult to contemplate, but descriptions are handled sensitively and one is drawn to the conclusion that some animal research is inevitable in this field.

The book font is easy to read, chapters clearly titled, the writing style is fluent and the content is understandable even for those not from a science background. Two appendices add information about the relationship between culture and brain function and set out how this type of research has developed with advancing technology since the theory that the brain was 'plastic' and re-programmable was first mooted in the eighteenth century. A comprehensive section of notes and references which is not based on endnotes but on highlighted phrases selected from various pages occupies twenty-five per cent of the book.

It is a well-thought out way of improving understanding, increasing interest and offering further avenues of study. Finally the book is well indexed so it is easy to select areas of special interest.

Only too often book reviews are fulsome and biased. Nonetheless, I must commend the excellence and sensitivity with which this author has handled the subject and created a book of absorbing interest to a wide range of readers. *The Brain that Changes Itself* invites and challenges us to maximise our brain potential at any age and reminds us that seeming miracles are real possibilities.

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