

The brain neuroplastic

'I sing the brain neuroplastic' should perhaps be the title of this somehow very American book. For Doidge, Walt Whitman's 'all-baffling brain' is entirely comprehensible in terms of neuroplasticity, which he uses to explain behaviours as diverse as obsessive compulsive disorder, love, chronic pain, internet pornography, recovery from stroke and autism.

Doidge wants to make radical claims about the brain, and in part uses the old trick of attacking a straw man, which was described well in a review in the *New York Times*: 'In classical

neuroscience, the adult brain was considered an immutable machine, as wonderfully precise as a clock in a locked case. Every part had a specific purpose, none could be replaced or repaired, and the machine was destined to tick in unchanging rhythm until its gears corroded with age.' If anyone ever truly thought that, how did they explain learning and memory? And even if the clockwise brain is ridiculous, equally absurd is its overly liberal converse of an infinitely plastic brain, 'as malleable as a lump of wet clay' as that same review said.

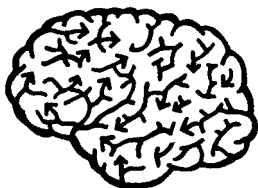
Neuroplasticity is everywhere now, and this book is a good guide to its gurus, its logic and its jargon. Children, for instance, no longer learn arithmetic but instead undergo 'brain training' (as a recent newspaper advert put it), a training that seems merely to mean playing with a hand-held gadget that provides feedback while doing arithmetic problems. Much of neuroplasticity, brain re-mapping or whatever seems to be using a new metaphor to redescribe, for the age of MRI, the old psychological truths of learning depending on its consequences, depth of processing helping memory, attention underpinning perception, and ten thousand hours of practice improving skill. The underlying mechanisms may fascinate neuroscientists, but need not necessarily interest psychologists, any more than computer hardware necessarily interests those using software. Even if brains are a necessary precondition for such processes, psychologists probably don't need to buy into the neurobabble unless they are sexing up grant applications, or persuading sceptical university administrators that psychology is actually serious science. Intriguingly, Doidge is a psychoanalyst, and for him Freud was the first to describe psychotherapy as 'neuroplastic therapy'. Should your behaviour change from reading this review, then perhaps I also am a 'neuroplastician'...

Overall this book is intriguing, infuriating, fascinating, absurd, credulous, wrong and misleading in parts, mainly by trying to satisfy different audiences. Scientific readers won't like the cutesy, intimate stories of 'personal triumph from the frontiers of brain science', replete with sweeping over-generalisations and little critical assessment. The triumphs are of the patients (whose rare diseases are undiagnosed by dismissive doctors but have miraculous recoveries) and the scientists (who are derided geniuses, rejecting conventional academia, whose ideas are both attacked and neglected until vindication results from the miraculous recoveries of those same patients). Neither will the book satisfy the halt, the lame and those suffering a myriad of neural afflictions, who will gain little from the technical diversions, and may be sadly misled with false hope of new dawns. When cures fail to appear, the interpretation may well be that the patients' brains simply didn't sufficiently want to change.

The cover quotes the *New York Times* as saying, 'the power of positive thinking finally gains scientific credibility'. The reference to Norman Vincent Peale's 1950s evangelical best-seller runs the risk that lack of improvement may be attributed to a failure of attitude, of not having sufficient of what, at Peale's death, Bill Clinton called, 'the wondrously American value of optimism'. Not to recover would be un-American, and the patient once more the problem.

NORMAN DOIDGE

The Brain that Changes Itself



Stories of Personal Triumph from
the Frontiers of Brain Science

**'The power of positive thinking finally gains
scientific credibility. Miracle-making stuff'**
THE NEW YORK TIMES

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Norman Doidge

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