

HOW GOD CHANGES YOUR BRAIN:
BREAKTHROUGH FINDINGS FROM A LEADING NEUROSCIENTIST.

Andrew Newberg and Mark Robert Waldman

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The longtime collaboration between neuroscientist Dr. Andrew Newberg, Director of Center for Spirituality and the Mind at the University of Pennsylvania, and therapist/writer Mark Andrew Waldman yields this highly readable book on complex questions and supported by complex data.

Newberg and Waldman overview the fast-paced changes in our scientific understanding of the brain and how these affect our concepts of religious experience and spiritual practice. Anchored in their own research, they synthesize recent breakthroughs regarding how much the brain can grow and change, even into old age. Experiences change the brain, and then the brain changes the likelihood and impact of experiences. In particular, different religious and spiritual practices affect growth in different areas of the brain. The appendix contains 70 pages of endnotes, with full citations to the complex neuroscience literature to allow further investigation of any particular finding.

At the Center for Spirituality and the Mind, Newberg's team has been studying mystics, yoga practitioners, and advanced meditators. Their research mapping neurochemical changes caused by spiritual and religious practices has led them to several conclusions. Different parts of the brain construct a different perception of God, and each person assembles perceptions of God in a unique way. Even when stripped from religious beliefs, spiritual practices such as meditation contribute to improved physical and emotional health through enhanced neural functioning. Importantly, there are added benefits to contemplation of God and other spiritual values. Long-term intense religious contemplation appears to change the specific brain structure controlling mood, self-concept, and sensory perceptions of reality. Moreover, contemplative practices strengthen a specific neurological circuit (focused upon the anterior cingulate area of the brain) that enables compassion.

For spiritual care practitioners, the most applicable section of the book offers three chapters on exercising your brain, finding serenity through meditation, and compassionate communication.

I found the chapter on exercising your brain especially instructive and thought-provoking, with some surprises. The authors summarize the rationale for and implications of each practice in their ordered list of the 8 best ways to exercise your brain for positive growth and to slow age-related deterioration: faith, aerobic exercise, dialogue with others, meditate, yawn, consciously relax, stay intellectually active, smile. Note that sleep was in runner-up position, as a pre-condition.

The chapter on finding serenity through meditation illustrates the brain enhancement program they have developed. Compared to the many other approaches to meditation, the unique aspect here is the focus on defusing anger, the emotion they report to be most likely to interfere with normal brain functioning.

The chapter on learning to communicate with compassion is the most valuable for clinicians and educators. Along with a detailed appendix, the rationale and specific communication exercises developed in ongoing workshops are presented for increasing one's capacity to resonate to another's emotions and to respond to another's pain. Exercises done in pairs are "designed to neurologically undermine defensive behaviors that are inherent in normal dialogue and conversation", enhance empathy and social awareness, and also improve cognitive and emotional functioning. The compassionate communication program has been updated, evaluated, and elaborated in a more recent applied publication (Newberg & Waldman, 2013)

Overall, ***How God Changes Your Brain*** educates and intrigues with many examples to make the technical language comprehensible. In their efforts to tell an engaging story, the authors take some leaps from the brain data to the meaning of religion, the nature of God, and the link between conscious activities and brain growth. As well, the correlational findings are much stronger than the evidence for any particular intervention program to enhance the brain. Yet, readers of this journal can readily separate the scientific interpretations from the attempts to place these in a more speculative, coherent broader context.

Reference

Newberg, A., & Waldman, M. R. (2013). ***Words can change your brain: 12 conversation strategies to build trust, resolve conflict, and increase intimacy.*** Plume/Penguin, 2013.

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