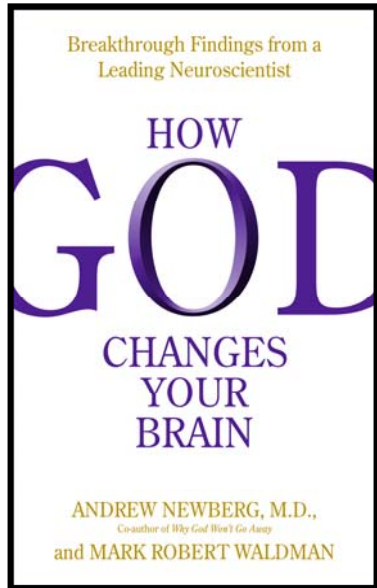


How God Changes Your Brain

Book Review by Neil Schuitevoerder, PhD



A spectacular book: I first read about this book in *Time* magazine, which touted it as a “self-help field guide to the health benefits of spirituality” and meditation practice. But I found much more within the covers of this rich and stimulating book. Like the classic *Varieties of Religious Experience* by James, the authors, who are neuroscientists at the University of Pennsylvania, summarize a dozen different ways the human brain processes spiritual experiences. For example, one part of the brain can generate images of an angry god; another, feelings of a compassionate god; yet another part of the brain can generate doubtful thoughts, and so on. They also present new data showing how Americans are becoming less religious but more spiritual as they embrace images of a universe that is scientific yet mystical. Furthermore, their online survey of a thousand participants shows that nearly everyone holds radically different concepts of

“God.” They even track how god, as a concept, begins as a face in a child’s brain, and the more that child thinks about what this incomprehensible (and potentially nonsensical) entity may be, new abstract conceptualizations begin to form in different parts of the brain. In fact, the authors show brain scans demonstrating that the more intense one contemplates any spiritual issue, the more it changes the structure and function of other parts of the brain in healthy ways (for example, meditators from Christian, Buddhist, and nonreligious backgrounds permanently alter their thalamus, and thus their perception of reality). This explains the book’s title, for even atheists, when they try to make sense out of religion, grow new dendrites in important areas of the brain that appear to slow down the diseases we get as we age. Fortunately, the authors put the neuroscience in terms anyone can grasp, and they proceed to give explicit instructions that the reader can use to stimulate their precuneus (a key center of consciousness), the frontal lobes (logic, reason, motivation), and the anterior cingulate (compassion, intuition, and social awareness). There’s so much practical and provocative material, that the best way to review this book is to briefly describe each chapter:

Ch 1: “Who Cares About God?” We all do, argue the authors, who introduce basic concepts of neuroplasticity, the “war” between atheists and fundamentalists, and why religious beliefs generate both anger and compassion in virtually everyone’s brain.

Ch 2: “Do You Need God When You Pray?” The authors describe a new study showing how a mantra meditation practice improved memory in older people with mild cognitive impairment (a precursor to Alzheimer’s disease).

Ch 3: “What Does God Do to Your Brain?” This chapter explores the neural varieties of meditation and prayer, and how different parts of the brain create different perceptions of God. They also discuss how different neurochemicals and drugs alter spiritual beliefs.

Ch 4: “What Does God Feel Like?” The authors’ data shows that, for most people, God is more of a feeling than an idea, that everyone’s spiritual experiences are unique, and that mystical experiences often generate long-lasting states of unity, peacefulness, and love.

Ch 5: “What Does God Look Like?” The authors collected adult drawings of God and compared them with pictures drawn by children. It turns out that the most sophisticated drawings are made by liberal believers, atheists, and agnostic college students. However, many atheists maintain childhood images, which could explain why god doesn’t make any rational sense to them. The authors suggest that everyone has “God” neuron or circuit in their brain.

Ch 6: “Does God Have a Heart?” They examine the Baylor University survey depicting four “personalities” of God, but they present evidence showing that a previously unrecognized and large segment of Americans maintain a mystical and loving vision of nature, God, and people.

Ch 7: “What Happens When God Gets Mad?” Surprisingly, the authors (one is agnostic, and the other doesn’t believe) found little wrong with religious fundamentalism, except when it involves angry rhetoric. They point out the neurological dangers of hostility, fear, authoritarianism, and idealism, and they suggest that we all have a fundamentalist mentality hardwired in the brain.

Ch 8: “Exercising Your Brain” Included are eight ways to keep your brain physically and mentally tuned-up. Even yawning appears to be an amazing way to calm down a dysfunctional brain, and they have about 40 references to support this (there’s over a 1000 endnotes in this book – wonderful for a professional like me, and important because it shows that they didn’t cherry-pick the research; indeed they admirably point out the weaknesses to their own conclusions and work).

Ch 9: “Finding Serenity” This chapter, and the next, are filled with simple, well-tested meditation techniques to help any reader, of any religious or nonreligious persuasion, reduce stress, enhance cognition and memory, develop greater sensitivity and empathy toward one self and others, and generally improve the overall functioning of the brain. The well-documented research shows that nearly any meditation technique can be removed from its theological background to provide beneficial neurological and psychological changes. The authors also provide convincing evidence that only a few minutes of relaxation, breathing, and watching one’s thoughts and feelings can reduce anxiety, depression, and stress.

Ch 10: “Compassionate Communication” This is an original meditation that can be used when dialoguing with others. It takes fifteen minutes to learn, and their research

shows that it improves social intimacy by 11%., even with strangers. They also include nearly a dozen ways to quickly resolve interpersonal conflicts.

Finally, in the epilogue, the authors talk briefly about their own journeys into the murky domain sciences and religions intersect. This is a “must read” book for believers and nonbelievers alike, and it might even help, as the authors suggest, to bring a little more peace and tolerance into this world. God knows we need it!

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