BOOK REVIEW



Book Review by Garrett R. Bird, University of California San Francisco, by Paul J. Fitzgerald PhD

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I do anatomize and cut up these poor beasts, he said to Hippocrates, to see the cause of these distempers, vanities, and follies, which are the burden of all creatures.

- Democritus (1)

Dualism, a belief in a fundamental opposition in all things like the body and the mind, good and evil, right and wrong, is found throughout ancient civilization. Dualism was expanded by John Cottingham(2) to include sensation, and the theory of trialism, or three opposing forces, evolved.

Paul Fitzgerald Ph.D. presents his contemporary version of trialism "The Big Three" (Norepinephrine, Serotonin, Dopamine) in his new book "Adjust Your Brain" which will be released in October 2007.

Dr. Fitzgerald is a native of Lafayette, Indiana. He attended Indiana University on the Wells Scholarship and graduated with highest distinction and a B.S. in biology in 1995. He attended neuroscience graduate school at Johns Hopkins, eventually finishing his Ph.D. in 2005. His brain mapping research has been published in several peer reviewed journals, including Nature and The Journal of Neuroscience. He was diagnosed with bipolar disorder in 2000.

Dr. Fitzgerald writes of his struggle to find an effective combination of available therapies. His goal: to allow him to continue his life's pursuits and contribute to society. If his narrative had merely described the plight of a well educated man coping with a debilitating disease it would have been noteworthy. Dr. Fitzgerald took it one step further by attempting to turn psychiatry, as it is practiced now, on its head.

The book is an interesting read on several levels. His depiction of personal struggles with mental illness will educate clinicians and students alike. Sad, yet inspiring, his ability to find a treatment that allowed some normalcy gives hope to sufferers of mental disease. More interesting, and far more controversial, is his assertion that everyone can do the same thing by bucking conventional psychiatry and "Adjusting Your Brain."

Dr. Fitzgerald proposes that the current version of the major psychiatric text, the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) is merely a "caricature of the truth(3)." His theory is that, like the four humors of Hippocrates, the brain, and indeed all mental illness, is derived from specific quantities of three main neurotransmitters (Norepinephrine, Serotonin, Dopamine) and their adjustment.

Dr. Fitzgerald draws on his own experience, the writings of Michael Nordin(4) and Peter Kramer(5), and from the literature. He uses analogies and simple examples to try and make this complicated topic more approachable for the general public.

It is, however, far from a simplistic theory. Dr. Fitzgerald spends a large proportion of his book explaining the complex interactions that exist within neurons, the brain, other organs, as well as receptor and reuptake modification of these signals. In the end, however, he proposes that all overt mental disease can be cured, or dramatically improved, by balancing these three neurotransmitters(3).

Unlike authors like David Healy(6) and Elliot Valenstein(7) who railed against the use of antidepressants and against pharmaceutical companies in general. Paul Fitzgerald is sure to win some friends in the industry. He proposes giving specific multi-drug regimens to every mental illness sufferer to alleviate their symptoms and lead a more normal life. He even suggests that at least fifty percent of the regular population would benefit from drug therapy(3).

He also names specific individuals (living and dead) who fit his criteria for distinct neurotransmitter levels. The entertainment and shock of some of these comparisons can only be experienced by reading the book. Dr. Fitzgerald asks some bold questions—were Hitler and Abraham Lincoln cut from the same neurotransmitter cloth? Is the author really Clint Eastwood in a smaller frame?

Not famous? Do not feel left out. Are you a strong norepinephrine or a weak dopamine? Should you have more serotonin or less to make life better for you? Dr. Fitzgerald gives you the guide to discover, according to his theory, where you lie on the spectrum of these three neurotransmitters. Armed with this knowledge you can approach your favorite medical professional for a prescription to raise and lower these levels as needed and voila, life is better.

Perhaps this is the biggest reason for clinicians, medical professionals, and students to read this book. You will likely disagree with some of the assertions, but you should be aware of them. Patients will undoubtedly study this text for clues into their own illness and will expect their physicians to at least be aware of the implications.

Like mixing ingredients to make a cake, Dr. Fitzgerald gives lists of drugs which either raise or lower specific neurotransmitters and states that clinicians should give two or three at the same time to adjust the brain back to normalcy. This flies in the face of established practice where clinicians are careful to slowly add and titrate psychoactive medications one at a time. It also decries the practice of switching drugs when one is not giving the desired effect—instead add another drug to the mix.

This is not to say that the theory cannot be carefully applied, but it does raise an interesting point about the safety of the interactions of these drugs. His own description of the side effects of commonly used medications and his persistent "brain freeze" should make clinicians pause a moment longer before prescribing. Their side effects can be complex and dangerous and merely mixing them into a therapeutic regimen based solely on their perceived neurotransmitter properties might be dangerous.

Dr. Fitzgerald does acknowledge that randomized control trials are needed to establish his theory, which is commendable. He readily admits that the available evidence does not entirely support (or denounce) this "Big Three" theory. If his purpose is to cause the reader to question the validity of the status quo, he succeeded. If he hopes to inspire researchers to create new drug combinations for mental disease treatment, he has at least opened the door. If he wanted to change the treatment practice of the current day, time will have to be the judge.

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