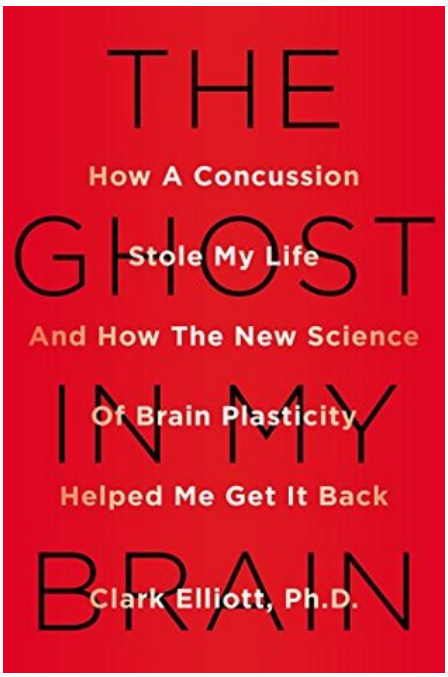

The Ghost in My Brain: How a Concussion Stole My Life and How the New Science of Brain PlasticityHelped Me Get it Back

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The dramatic story of one man's recovery offers new hope to those suffering from concussions and other brain traumas

In 1999, Clark Elliott suffered a concussion when his car was rear-ended. Overnight his life changed from that of a rising professor with a research career in artificial intelligence to a humbled man struggling to get through a single day. At times he couldn't walk across a room, or even name his five children. Doctors told him he would never fully recover. After eight years, the cognitive demands of his job, and of being a single parent, finally became more than he could manage. As a result of one final effort to recover, he crossed paths with two brilliant Chicago-area research-clinicians—one an optometrist emphasizing neurodevelopmental techniques, the other a cognitive psychologist—working on the leading edge of brain plasticity. Within weeks the ghost of who he had been started to re-emerge.

Remarkably, Elliott kept detailed notes throughout his experience, from the moment of impact to the final stages of his recovery, astounding documentation that is the basis of this fascinating book. *The Ghost in My Brain* gives hope to the millions who suffer from head injuries each year, and provides a unique and informative window into the world's most complex computational device: the human brain.

From the Hardcover edition.

The Ghost in My Brain: How a Concussion Stole My Life and How the New Science of Brain PlasticityHelped Me Get it Back Details

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From Reader Review The Ghost in My Brain: How a Concussion Stole My Life and How the New Science of Brain PlasticityHelped Me Get it Back for online ebook

Kent Winward says

One of the better traumatic brain injury books that I have read, Elliott is articulate and shows just how debilitating and maddening TBIs can be. His story also raises some serious questions about how we should approach brain injury treatment and in that regard other mental health issues that are the result of how our brains process information, whether the damage comes from blunt trauma or psychological trauma.

First, medical professionals need to learn to work from a baseline for the patient. A professor like Elliott is going to have capabilities that differ from other patients. In brain science there is a starting point from the injury.

Second, we need to look at more treatments that promote neuro-plasticity. The neuro-ophthalmology was fascinating and basically used handicapping and altering vision to promote change in how Elliot perceived the world and in a very real sense, healed him. This was also coupled by training to make up for cognitive deficits that he had been able to mask prior to the injury, but that became apparent after his injury.

Third, Elliott had to work for almost ten years to try and find the right treatment. Too many people suffer to let these promising treatments be so inaccessible to the general public. Which highlights the problem with capitalistic medicine. These treatments, while they work, aren't easy, are time consuming, and costly. The easy fix is an easier sell, but it almost inevitably not as effective or long lasting, particularly in the area of the brain. These are not problems that can be solved with an antibiotic or a pill.

Dana * says

Do book editors still exist? If one did for this book, they would have condensed the first 240 pages into maybe 40 pages. This would have helped the author not sound so pompous, confused, non-sensical and contradictory. How does a person go from barely able to walk and speak to raising a 2 year old child? Those are demands that cant be half way met.
The author spent too much time trying to convince me of their high functioning and superior intellect and then the extremity of their symptoms. The result was not very convincing, the situations end up not ringing true. I don't think I doubt the seriousness and severity of the consequences of the concussion, but I do have trouble marrying that with fathering and raising a child with no help while working full time and building a home.

Here is another example, the author suddenly reveals that his doctor is aware and concerned about his family history of ADD. This was mentioned nowhere in the prior 250 pages. not even a side note. Suddenly, it seems it is the focus of treatment.

I finally got to the good part of the book, where the diagnosis was described. But even here I was disappointed in the lack of accessible detail. At points, the descriptions were too clinical, at other points too general. I understand that colored glasses helped, but why does color matter? There was a better description

of why the lenses shaping made a difference. And what was the point of all the drawing exercises, what was being exercised and why does this work?

Beth Stillman Blaha says

I received this book as an advance copy in exchange for a review from Viking.

Often when I read nonfiction books that have to simplify concepts in science, those with formal academic training in that discipline complain that it is too oversimplified, or in the worst case scenario, wrong. I have dabbled in neuroscience in my training as a Psychologist and I am happy to report that this book takes on a giant topic and makes it accessible to the general public. It was not a light read and not for when I had worked all day, but Dr Elliott tries to make things as concrete as possible when explaining brain function and how interruptions to brain function ruin one's ability to make it from A to B in the same way. Also, before one gets to the last third where the fascinating healing process is explained and Dr Elliot is brought back to himself, this book can be very depressing. He suffers profound disability for years and has to maintain a previously high-functioning life that would be taxing for a normal person. I am not sure I would have made it through the previous two thirds without knowing that the last third would be about recovery.

I work some with children on the autistic spectrum and some of the deficits that he articulates overlap with how children on the spectrum struggle with meeting every day demands, too. While I am empathic to Dr Elliott's struggles, I feel lucky that he is able to impart so clearly what living with brain damage is really like to help us to generate empathy and develop interventions to assist in functioning. Increased understanding always leads to better outcomes. I wonder how the neuroplasticity work that he does to heal would affect children on the spectrum. Also, he does exercises that ameliorate his slight attentional deficits, which would be great to be able to give to children who suffer from this condition as well. The brain is a magical thing.

The book is well written, clear and informative. It tackles a huge subject and makes it relatable. It is inspiring to think about some of the cognitive work and healing that can be done with deficits that we previously felt we have to medicate and cope with.

If you like this review and would like to see more, or would like me to consider your work for review, please see my website at www.donovanreads.com. Thanks to Viking Books for this opportunity.

Socraticgadfly says

First 2/3 good; went off the rails after that

Despite the fact that Norman Doidge, while not Daniel Amen, moves further away from actual science with each new book, I was willing to move past his highly enthusiastic blurb and read. Ditto, despite not knowing much about either doctor, or the claimed techniques (not listed on Skeptic's Dictionary), and so I read on.

Then, near the end of the book, when he talks about his personal treatment from Markus and even more from Zelinsky, he zooms into anecdotal, and at one point, even pseudoscience.

The anecdotal is his claims that "vintage vinyl" is "flatter," or whatever, than CDs, and of course, it all

sounds better through vacuum tube amps, etc. Well, "flatter" really means less noise. If he means the "arbitrary" high-end frequency cutoff on CDs, yes, it cuts out a few overtones from some treble instruments. However, higher frequencies are what deteriorate first with age, and I'm pretty sure Clark Elliott's hearing in this range, since he's around 60, has deteriorated. There's plenty of refutation of Elliott like nonsense here: https://numeralnine.wordpress.com/201...

Reality is that any good DDD-based CD will generally sound better than "vintage vinyl." It's a mix of baby boomer nostalgia for record covers and related things (yes, Elliott's into classical, not rock/pop etc.) that drives stuff like this. Ditto for his claim vacuum tubes are better. Blind tests have shown that audiophiles prefer transistors.

OK, so I'm already skeptical enough at this point.

Then, Elliotlt claims that the first set of special glasses Dr. Zelinsky gave him changed how he heard music EVEN WITH HIS EYES CLOSED.

OK, now we've gone to the far edge of anecdotal and pushed the envelope into the edge of pseudoscience.

Dear Ph.D. researcher in artificial intelligence: Please provide a scientific explanation for how this could happen.

All of this, beyond being problematic specific to Elliott makes it look like any benefit he got from Markus and especially from Zelinsky is itself anecdotal and not scientifically double-blinded.

So, Prof. Elliott, if you're still "review-watching," as you were a few months ago, please provide links to the appropriate research.

Barbara (The Bibliophage) says

More reviews at TheBibliophage.com.

Dr. Clark Elliott’s medical memoir, The Ghost in My Brain, is one of the best I’ve read. Elliott, who is a PhD teaching Artificial Intelligence in Chicago, describes the effects of a concussion like nothing else I’ve seen. To discuss the resulting book and it’s descriptions as impressive is only part of the story. Once you read how damaged Elliott’s brain was, you’ll be stunned he was able to write such a cogent and compelling book.

I have a dear friend who’s experienced a number of severe concussions. She has a hard time explaining how it feels to live with this condition. Now I can put this book in her hands, and say, “I think I understand more.”

The neglect, misdiagnosis, and ignorance of medical professionals is also central to Elliott’s story. As he describes the daunting challenges of each day, he continues to try to get help solving the damage to his brain. Year after year passes, with no help from neurological specialists. Finally, Elliott and an assistant find a potential solution. This reminded me again, that patients have to keep pushing for answers. Despite all that we hear about concussions, the actual treatment methods are buried under misunderstanding and obfuscation.

Elliott describes in detail his process of recovery. I rejoiced along with him! Not just because I can empathize, but because he illustrates the gains with such fervor. I am amazed at how far he was able to come in returning to wholeness. Okay, I’m fangirling. I’ll stop.

If you’re interested in brain plasticity and medical stories, this is a superb book. I’d consider it right up there with Brain on Fire: My Month of Madness by Susannah Cahalan. The writing style is clear, despite including some medical terminology. Elliott focuses on his experience with some brain science on the side, which makes it eminently readable. I listened to the audiobook read by Arthur Morey, who has a pleasant tone and strong grasp on the content. I highly recommend it!

Anne says

I didn't particularly care for the layout of this book. While the material was compelling, it was relayed in a disparate, confusing timeline that made any understanding the experiences the author was having quite impossible. For instance, the passage in which he was reminding himself of whether or not he had children every morning came after talking about being primarily the single parent to his 2 yr old. I don't see how this reminder would be necessary in such a situation unless this is before the child was born? I hear that 2 year olds make a lot of noise in the morning... Many passages were also puzzling as to how he could have functioned... He describes not being able to tell what day of the week it was, but then continually mentions how he was able to keep up his teaching schedule. There was clearly missing essential information. But, regardless, he does highlight his personal story of dealing with a medical disorder that appears to be greatly misunderstood. I found the third segment of the novel to be particularly interesting, though I wish he could have gone into more detail.

Becky Ford says

This will most likely be on my favorite books of the year list. This book was absolutely fascinating. Brain science is so intriguing. Elliott breaks down what happened to his brain following a concussion. His descriptions of how his brain "worked" and his thought-process sequence were in laymen terms and now I'm more interested than ever to learn more about the brain and how it functions following traumatic injuries. I highly recommend this book to everyone, but especially to those who are interested in this area of science. The audiobook is narrated by Arthur Morey who is one of the best narrators out there.

Linda says

The Ghost in My Brain is an intriguing trip through traumatic brain injury, written by a university professor who suffered a severe concussion in a car accident and dealt with confoundingly debilitating effects for years afterward, until he finally, serendipitously, came across two specialists who had developed unusual therapies that produce significant improvements in the injured brain. After working with them, Clark Elliot's life is completely turned around. He goes from a life dominated by his injury, which limits his activity and exhausts him daily, to a return to his pre-concussion self. Elliot's story of loss and recovery is a dramatic one. The book, however, is a mixed bag. On the one hand, Elliot's detailed description of his post-concussion experiences, as well as the treatment program he eventually follows, provides fascinating insight into how

the brain works. On the other hand, the narrative often feels over-written: some episodes run on too long, some details strain credulity, some sections come off a shade too self-congratulatory, or in other ways the story is just a bit too much to take in places. In addition, some of the sections dealing with more scientific explanations get a bit too technical/academic for the average reader. As a general interest book, I wouldn't say it's a *great* read. However, Elliot's book will bring to a general audience some crucial information about the ability of the brain to recover from some kinds of damage, and I am sure that for some people dealing with the long term effects of traumatic brain injury, this book could be a true life-saver.

The symptoms that Elliot describes are startling, both in their content and in his ability to recall and retell his experiences in such detail. (Evidently he took extensive notes documenting his post-conucussion experiences, as well as during his treatment, and in both cases, the notes proved helpful to understanding his injury and guiding his treatment in the most helpful direction for him.) His symptoms are often so severe as to be effectively paralyzing -- as when he gets stuck at the top of staircases because he is cognitively unable to sort out how to go down. Adding to his difficulties is the fact that in many respects he remains outwardly "normal", or at least until he is exhausted by the extra cognitive effort it takes him to do previously simple tasks, at which point his facade of normality breaks down completely. To be sure, I found his descriptions of his experiences hard to believe at first. But then I reflected on a strange symptom I sometimes experience in the midst of a particularly severe migraine: I lose the ability to read. I don't mean that it's too painful to read, that it hurts my eyes, or that my head hurts too much to think. Rather, when I attempt to read -- when I attempt to look at symbols called letters, arranged into words, and convert those symbols into meaning in my brain -- the last step of that series, the cognitive act, is simply absent. I know how difficult it is to explain this to someone, to describe it to someone. It's extremely difficult to express what this *absence* of cognition is. It's not an absence of knowledge. It's not an absence of facts. It's not even the absence of the knowledge that these facts are supposed to convey some kind of meaning. The fact that you can simultaneously have the information, and the knowledge that it is supposed to mean something, but it never resolves into cognition, makes the experience that much more bewildering. When I think about my migraine-induced aphasia, which happens, at worst, a few times a year, and try to think of that level of cognitive difficulty as a daily constant, it puts Elliot's experience into rather frightening perspective.

The treatment Elliot finally finds, and its ultimate results, are as striking as his terrible symptoms. He comes into contact with Donalee Markus, Ph.D., a practitioner of clinically applied neuroscience, who is the first practitioner, medical or otherwise, who is able to see his cognitive deficiencies as something treatable. Her approach is to give Elliot a series of increasingly difficult exercises and puzzles to complete, all aimed at retraining his brain's cognitive processes. She also introduces Elliot to a colleague, Deborah Zelinsky, an optometrist with a specialty in something called "neuro-optometric rehabilitation". In truth, it is Zelinsky's method that provides the biggest surprise of the book. As Elliot goes to great lengths to try to explain (and not always accessibly enough), there is a complex relationship between the body's visual input system (visual and, crucially, *non-visual* receptors in the eye) and the brain's processing of sight, thought, balance, and even hearing. Zelinsky uses a mix of visual tests and specialized lenses to determine how light is directed into the eyes, which subsequently affects how the signals captured by the eye are processed by the brain. It seems that the most astonishing improvements that Elliot experiences come from the series of specialized lenses that Zelinsky outfits him with -- he begins calling them his Magic Glasses. And the results really are remarkable. He is able to do things effortlessly that for at least eight years he has only been able to do with great difficulty, if at all. Elliot's story should offer a great deal of hope to anyone struggling with traumatic brain injury -- and in today's era of athletic concussions and wartime traumatic brain injury, these developments come not a moment too soon.

So there is a lot that is fascinating in the book, but there are also some troubling elements to the story as well. For example, Elliot's friends and family do not come off very well in his retelling at all. The examples of the

disabling effects of his concussion injury seem to be omnipresent in his life, and yet his wife and children, his students and colleagues, and all but one friend, seem to be either utterly unaware of his difficulties, or carelessly indifferent to his struggles. However, given how Elliot talks about himself throughout the book -- as extraordinarily intelligent, talented, and capable, repeatedly referring to himself as a single parent and as responsible for the financial support of up to ten people -- it's impossible to tell whether that is a true reflection of how his family and friends acted toward him, or simply the words of a man who is inordinately focused on himself. It is difficult to align certain elements of his story -- for example, he seems to have very obvious episodes having to do with balance and coordination, and yet everyone in his world apparently thinks it's fine for him to be the sole caretaker of a pre-school child? Also, I'm mystified by his apparent failure to provide even a broad brush explanation to others for his outwardly bizarre behavior. For instance, he seriously alienates a neighbor when the neighbor pulls up to the curb when Elliot is outside playing catch with his son, and speaks to him about something, all while the neighbor's car is making some high-pitched noise. For Elliot, the noise is so unbearable that he literally drops to the ground and covers his ears, leaving the neighbor to repeat himself uselessly, then drive off in frustration. Elliot later laments the broken relationship with the neighbor, which just makes you wonder why he didn't simply go over to the neighbor's house later and apologize, explaining that he had an injury that left him sensitive to certain sounds. For that matter, it's hard to imagine that anyone could be talking to someone normally, then see that person clamp his hands over his ears and drop into a fetal position, and not jump out of the car to offer assistance, but rather drive away angry, as the neighbor does in Elliot's retelling.

Most disturbing of all is the fact that not only did Elliot continue to drive his own car throughout his entire post-concussion life, but he also defends to this day his decision to drive. The very first chapter describes a particularly horrifying evening when, after teaching a 3-hour university lecture, Elliot takes three and a half hours to go down to the street from the 6th floor of a university building and walk five and a half blocks to his car. After another hour and a half of rest in the car, he drives 30 minutes home, and then it takes him another hour to walk from the curb to his front door. He is so incapacitated by his brain injury that the cognitive load of the task at the end of a long day has him literally crawling on all fours to his office in the building after his class, and almost literally has him freeze in place when he can't cognitively manage the walk across a one-block park in frigid, snowy Chicago to get to his car. He is nearly undone by the effort to put the car key in the lock and then maneuver himself into the car. And yet, he wants us to believe, he was fine to drive! He defends himself mightily in the book about driving, although he mainly does it in a footnote, which seems another attempt to minimize his terrible choice. There would be no shame him saying something to the effect of, *At the time I thought I was fine to drive, but now, in retrospect I can't believe I did that.* But, shockingly, it seems that even at the point of writing the book, he is completely unaware of the damage to his judgment presumably caused by his brain injury. (That is, I assume he didn't have such abysmal judgment before the crash!) Because anyone can see how spectacularly reckless it was for someone with his cognitive, perceptive, and physical limitations to drive a car (or, good god, wield a chainsaw on a ladder thirty feet up in a tree while trying to take the tree down on his own, something else he apparently thinks it was perfectly OK for him to do). The fact that no catastrophe actually happened is ***not*** proof that this is OK -- as any scientist, academician, or clear-eyed thinker worth his salt should be able to see. Accepting, for the sake of the argument, that the probability of failure in taking on these dangerous activities was low (which I do not accept in fact), the risk, the potential damage, resulting from failure is so astronomically high (a car accident that seriously injured other people, or cutting off his own foot with a chainsaw), that the choices he made were jawdroppingly reckless and a sign of dangerously impaired judgment.

The central dilemma of the book is this: no one but Elliot is capable of describing the subjective experience of living with his extraordinary symptoms, but Elliot is a particularly unreliable narrator. Bottom line, I think this paradox is at the heart of most of what's wrong with the book. A better approach would have been to

have a co-author, who could ground the narrative in a more objective voice, with sections written by Elliot himself, who could provide the personal insight into the experience of traumatic brain injury that is so key to the story. Nevertheless, it's still an interesting book for the general reader, and will surely prove essential for some who really need to hear Clark Elliot's story.

Nancy says

A Personal Account of What Suffering from a Concussion is Like

In 1999, Clark Elliott was in a fairly minor automobile accident. He had a moment of blackout, but thought that his symptoms would quickly pass. They didn't. He experienced intense pain in his skull, suffered balance problems, had trouble thinking for any extended period of time, and suffered bouts of nausea when concentrating hard.

Medical professionals were unable to help him, suggesting that he learn to live with his symptoms. Clark is a remarkable person. He did live with his symptoms for ten years and during that time recorded his struggle to cope and understand his problems. Being a professor of artificial intelligence, he described his symptoms in language relating to information processing. Although at times his descriptions become a little technical, he offers simplified examples so the book is easy to follow.

The descriptions of how the cognitive processes in his brain appeared to work are fascinating. Because his thinking speed was slowed, he was able to analyze the way his brain worked to retrieve and process information. Anyone interested in cognitive psychology should read this book. Necessarily, it is one person's experience, and therefore, a case study. However, it is a case study that suggests a number of pathways for future research.

Perhaps one of the most significant sections of the book for anyone suffering from the effects of concussion is the part about his eventual successful treatment. I highly recommend this to anyone suffering from concussion and looking to understand and get treatment for their symptoms.

I reviewed this book for the Amazon Vine Program.

Bacon Nivison says

10 years ago I was involved in a "terrible accident" in which I experienced severe brain damage. Unconscious for 3 months, I, a former "gifted underachiever" awoke to a world of confusion. A world in which my humanity was gone. I've learned to control myself in order to function in the normal world and have become what is called a highly functional concussive, but I'm still not me. Far from it. This book was very well and thoughtfully written. It is a must read for anyone battling with their own mental capability, but for those around them as well. I'm currently attempting to get my family to read this book, which will help them understand who I really am. It has done this very thing for me AND given me a hope I've never had. The "experts" and therapists I've worked with in the past, had no clue, their help was well intentioned but hopeless, their advice based on ignorance and inflated impression of their own wisdom. Something like botanists attempting to perform brain surgery. This book has opened the world up to me. I have a new hope

and a surety that my future is still one of improvement and recovery. A hope the professionals implied would end years ago. The answers are not here, but the hope is here in intensity. In reading this book I actually discovered myself. Was told about the bizarre trip I've been on. Anyone who has an interest in brain functionality, particularly post brain injury absolutely should read this book. Simply magnificent... no... complexly magnificent!! yes...

Tom says

An amazingly helpful, hopeful, and interesting book for anyone who has suffered from concussion(s) or is interested in brain plasticity - from a layman's perspective (a very smart layman). It seems we are only just learning about the long-term effects of concussion and how the brain can be made to adapt and retrain itself.

Tess says

I was interested in this book because my husband suffered a traumatic brain injury over twenty years ago, which has dramatically changed both of our lives. We listened to the audio version together and both of us found ourselves in tears at numerous times. It was a relief for my husband to have found that there was someone else out there who could describe what he has gone through in such clear detail. And, it is a relief for both of us to know that there is hope in the research that is being done with brain elasticity.

That being said, this book could have been about 60% shorter. The minutia of Mr. Elliott's daily life got to be tedious (the reason it took over 6 months to finish listening to it). We got it, life is hard after a tbi. People don't understand what you are going through. It's frustrating. Also, as a non-concussive, I was made to feel guilty for not having had a tbi. There was a moment while listening to this book when I turned to my husband and asked him if he resented the fact that I had not had a concussion. He, of course, said no and agreed that Elliott was being heavy-handed in his attitude toward non-concussives.

Overall, there is good information in this book, but I wouldn't listen to the audiobook, and if possible, I would find a used copy that had been highlighted by another reader and just read the highlights.

Lauren says

Excellent memoir on what it's really like to live with concussive symptoms and how he (the author) was able to heal himself.

Leah says

Don't let the title fool you. This was written for the express purpose of the author telling you how smart he is/was. While I don't doubt that this guy had the symptoms that he describes I am not so sure that they were from a minor head injury. The convenience of his severe symptoms that make him unable to make a sandwich but still able to work as a professor and "singlehandedly" raise 6 kids is a bit preposterous. How he manages to actually get married, have a baby, yet go no help from the wife in his process (she leaves him to

raise the baby himself knowing he can't even make a sandwich?) is not explained, but he mentions his high intellect, astute musical talent and athletic prowess more often than he does any specifics about brain plasticity.

Chris Barker says

Amazing. Such phenomenal insight to the inner workings of the brain and the way we use relationships built throughout life as a cornerstone for understanding the world as we move through it. Clark is very articulate and the way he describes what's missing after the accident is enlightening.
