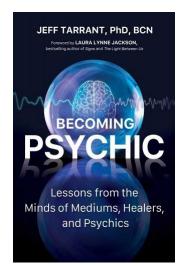
Hacking the Brain for Psi¹

Diane Hennacy Powell

A review of

Becoming Psychic: Lessons from the Minds of Mediums, Healers, and Psychics, by Jeff Tarrant. Health Communications. 2023. Pp, 300. \$17.95 (paperback)



As the title *Becoming Psychic* suggests, one dominant theme in Tarrant's book is his personal experiments with trying to experience anomalous cognition. In it, the author encourages readers to try to develop their abilities by giving some basic exercises and instructions in meditation techniques to quiet their minds for better access to their intuition. His expertise in quantitative encephalograms (qEEGs) also enabled him to look at the changes in his and others' brain waves under experimental conditions that allegedly promote psi experiences such as: sensory homogenization using ganzfeld, holding various crystals such as quartz, being in a psychomanteum (a dark chamber with a mirror), receiving high and low light frequencies via special glasses, and the application of a transcranial magnetic stimulation device to select areas of the brain. The book also tells of Tarrant's personal story of conversion from a skeptic to a believer who proclaims, "I am now convinced that energy healing, mediumship, ESP, telepathy, and psychokinesis are real." (p.xx).

¹ Address correspondence to: Diane Hennacy Powell, Ph. D., DrDianePowell@gmail.com

Like many other books written for a popular audience, the back cover makes overstated claims: "As a "scientist and skeptic, his rigid ideas were gradually worn away as he repeatedly witnessed and experienced things that simply should not be possible." Tarrant's account comes across as honest and sincere, but the actual shift in his perspective is far less dramatic than advertised. I wondered early on in the manuscript whether he was ever really a rigid skeptic. For example, Tarrant was fascinated by the supernatural as a young child and confesses to having become "fixated on the idea of alternate realities and magical powers" (p. xiv) after reading Madeleine L'Engle's *A Wrinkle in Time*. He also reported having regularly read his grandmother's *National Enquirer* as a child and stated, "I have always felt that I had some untapped potential in the psi world" (p.63).

Tarrant's "skepticism" began to shift after meeting Janet Mayer, the mother of a student who was assisting him in a biofeedback program at the University of Missouri. Years before meeting Tarrant, Janet had reportedly started speaking an unknown language while doing holotropic breathwork. The mysterious tongue was eventually identified as an extremely rare Amazonian dialect called Yanomami by Dr. Bernardo Peixoto, a shaman from the Uru-e-wau-wau tribe who was a native speaker and an advising anthropologist at the Smithsonian Institute. Although it is hard to know what to make of Janet Mayer's xenoglossy, her brain mapping with qEEG while engaging in it showed increased theta activity in the frontal lobes and a "hot spot" (p.13) in the right superior parietal lobe.

The most remarkable demonstration of anomalous cognition given in the book is by Laura Lynn Jackson, who wrote the book's forward. Jackson is a professional "medium" who can allegedly speak with the deceased. She is also reportedly "psychic" in that she has made accurate predictions about the future and known things about people without having been told. She gave Tarrant both kinds of readings while he obtained her qEEGs. Jackson surprised him with her extremely detailed and accurate descriptions of his family members, prediction of his move to Oregon, and knowledge that his grandfather was named Giuseppe. Intriguingly, Jackson's qEEG was entirely consistent with her reports of seeing psychic information in her left visual field and mediumship information in her right visual field. During the psychic reading her brain exhibited increased fast brain waves (high beta and gamma) in the right occipital lobe (left visual field) and a decrease in fast activity in the frontal lobes. During the mediumship reading it showed an increase in slow brain wave activity (delta, theta and alpha) in the left occipital lobe (right visual field) and a pronounced shutdown of both frontal lobes.

Tarrant's results with Jackson suggest that brain mapping might be able to dis-

tinguish between different types of psi, such as telepathy ("reading" someone's mind) and remote viewing (accessing visual information from a distant location). This is an intriguing possibility because parapsychologists often debate whether psi skills all share the same fundamental process. I am an advocate for exploring this question by testing as many individuals with verifiable skills in one or more category as possible. Towards that aim, Tarrant gives his preliminary qEEG results with three mediums other than Jackson. His data implies that, at least to some extent, the brain patterns associated with these tasks might be idiosyncratic to individuals. However, there was one commonality: they all showed increased gamma waves in the posterior brain where the visual cortex is located. Even though this is a very small data set and he doesn't provide further evidence to support it, he goes on to recommend an herbal tincture prepared specifically for sale by his institute that will allegedly increase gamma waves in the right hemisphere to induce psi.

In his analysis, Tarrant references my book, *The ESP Enigma* (Powell, 2008), where I noted that the neuropsychiatric conditions in which psi was reported the most all exhibited the same reversal of the usual waking brain activity. This reversed pattern includes a reduction in frontal lobe activity (Muzur et al., 2002), which in turn disinhibits the posterior sections of the brain, and a right hemisphere dominance over the left. Together these reversals suspend the judgement of what one thinks is possible. These reversals are seen during dreaming sleep when people who are not normally considered "psychic" can ostensibly get communications from someone in distress at a distance or visitations from the recently deceased (Rhine, 2018; Ullman et al., 1974).

This reversed pattern is also likely to be especially prevalent in autistic children with savant skills. This is because their frontal lobes have not been fully myelinated, their language skills are impaired (left hemisphere deficits), and their savant skills are either visual-spatial or use gestalt processing (right hemisphere). Like Jackson, many savants claim to visualize the answers. That was the case with John and Michael, the autistic twins studied by Oliver Sacks (1985). They could not do simple math, but could do calendar calculations spanning thousands of years and spit out consecutive prime numbers in up to twenty-digits because they just saw the answers.

Tarrant's book includes my initial testing of "Elisa", a 13-year-old autistic girl whose family had recently contacted me because they believe she can read minds. Reports of telepathy appear to be a common experience among non-speakers who have recently learned how to communicate by "spelling" on letter boards. They all use a technique called rapid prompting method (RPM), otherwise known as "spelling to communicate" (S2C). RPM was developed by Soma Mukhopadhyay for her autistic son Tito. The method's rationale comes from the fact that many nonspeaking chil-

dren have intact receptive language but they have a sensorimotor issue that causes an expressive aphasia in which they struggle to use their oral musculature to speak. Similarly, they have difficulties using their upper extremities to write or type. RPM works because it uses pointing on letter and number boards to spell out answers and doesn't require the same level of fine motor control as typing. Over time, the motor abilities of some improve to the extent that they can graduate onto a keyboard.

RPM is a controversial communication method labeled scientifically invalid by the American Speech-Language Association (ASHA) because it requires prompts on the part of the facilitator who holds the letter board. The aim of the prompts is to keep autistic individuals on task because they often have a tendency to fixate on a particular letter or number when spelling out their answers. Due to the active role of the facilitator, the communications obtained by RPM are considered by most speech therapists to be the facilitator's and not their child's. This is not always a correct assumption, because occasionally the child goes on to type independently and eventually proves that they were indeed the communicators. Furthermore, RPM has had some major successes and enabled some non-speakers to go to college. Perhaps the most famous is Elizabeth Bonker. She gave a commencement speech at Rollins College in Florida as class valedictorian.

The issue of telepathy is a hot potato among the spelling community. Mukhopadhyay has actively discouraged it for understandable reasons. She has been working hard to convince the mainstream educational and medical communities to accept these children's communications as their own. Understanding the issues for the non-speakers becomes even more critical when you realize that the numbers of autistic children have soared during the past forty years. The incidence was only one out of every 10,000 children in 1985, but is one in thirty now. Announcing that these children are telepathic could undermine the credibility of Mukhopadhyay}s method, so choosing the right course of action in reporting my research has been a fine balance.

Another issue with Elisa is the potential for subtle cueing. Being touched would be considered a red flag from the standpoint of skeptics. However, when many children are first learning RPM, they do best while being touched by a parent. At the time of testing, Elisa had been using the RPM boards for such a short period of time that she required far more assistance from her mother to communicate than desirable. Anxiety also played a role in creating more need for tactile support. That is particularly the case in initial experiments being filmed on camera. To avoid the issues caused by RPM, I have primarily tested under controlled conditions autistic children who are able to speak and/or type independently (Powell, 2015a, Powell 2015b). However, the documentary filmmaker following my research wanted to start by filming experiments that were being set up for the first time and all of my untested children were using RPM.

Tarrant briefly mentions the concerns I raised over touching and how it could be construed as a source of subtle cueing, but he was also convinced that what he saw was indeed telepathy. I cannot fault Tarrant too much for considering Elisa telepathic. After our experiments the entire sound and camera crew walked away with the same impression. No one visually detected an obvious pattern that could be considered cueing. All told, there were at least ten witnesses, some of whom were filming from multiple camera angles. Nonetheless, the conditions were clearly not optimal for proving telepathy and we cannot definitively say that there was no cueing without more tests and a detailed analysis.

Tarrant's book is primarily written for people who want to have more psychic experiences. Unfortunately, his experiments on himself employ loose criteria for judging whether he had success, or a hit. For example, he tried a ganzfeld protocol in which one of the targets was Princess Diana. He saw a dark-complected man with a beard and mustache. It wasn't until later that he thought about Diana's boyfriend who was killed alongside her and decided that it was a hit. Similarly, he saw a dark-haired man when the target was Mother Teresa and concluded it might have been a hit because he envisioned a man who, like Mother Teresa, had also lived a "simple life" (p.68).

Approaches like meditation that Tarrant recommends are generally very beneficial for many people, but some of the other approaches could do harm. For example, he gives suggestions for ways to try to hack one's brain chemically with drugs like ketamine and/or electromagnetically with a transcranial magnetic stimulation device. I particularly have concerns about the enthusiastic promotion of electromagnetic devices and psychedelic substances that have not been sufficiently tested, especially if someone tries to use them all together and/or without supervision. Tarrant does include a disclaimer that people with conditions such as seizure disorders and mental illness should be cautious, but the warning appears perfunctory and people with undiagnosed mental illness usually do not think of themselves as such. Also, that disclaimer is likely to be ignored by many of today's youth who are accustomed to television advertisements for medications that show their benefits visually while the audio component tells us their potential side effects.

As a clinician with over 40 years of practice, I have treated people who have suffered severe clinical consequences as a result of engaging in self-experimentation with drugs. If someone is very rigid in their thinking, psychoactive drugs can be a solvent to open them up. The problem is that the group of individuals most attracted to experimentation often includes people who need glue and not solvent. I have seen how easy it is for some people to lose touch with reality, which includes not realizing that they are delusional. One of my patients was in her early twenties when she worked with a shaman and was given Ayahuasca. Her shamanic journey destroyed her life, because she became plagued by visions of demonic creatures for years afterwards and had to go on antipsychotics to control them.

Overall, this book is an easy read and contains some intriguing findings. However, Tarrant's results under various experimental conditions to induce psi are modest and the quality of evidence he gives for anomalous cognition is patchy. Also, his brain mapping is based on a small dataset and the results tend to vary on an individual basis. Furthermore, his book crosses a line or two that gives me great pause to recommend it. My concerns are not just as a clinician worried about unsupervised experimentation. As a parapsychologist, my primary concern is that his criteria for judging one's own abilities are so loose that they could encourage the connecting of dots that are entirely random and unrelated. It is understandable that the author does not want people to become discouraged too easily, but to consider the men he envisioned to have been hits for Princess Diana and Mother Teresa is problematic from multiple standpoints. Perhaps there will be a new generation of gifted individuals who try his techniques and discover their own hidden abilities after reading *Becoming Psychic*, but I suspect that many of the readers already know of their gifts and will primarily find his book a form of validation.

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