How I Shocked My Brain and Created Change

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Hi my name is JD...
and I’m a self–tracking addict

“Hi JD…”

When I first discovered the idea of self-tracking, I figured it was the coolest thing ever.

The stressful, anxious, OCD individual inside me broke out in tears of joy!
What Did I track?

- EVERYTHING I COULD
  - Everything I put in my body
    - Food, Supplements, Prescribed medication, Recreational drug & alcohol intake (hey, it was college)
  - Heart Rate & Heart Rate Variability
  - Quality of Sleep and Sleep Patterns
  - Steps per day/Exercise
  - Anxiety levels
  - And so much more.
So Now What?

Quantification Baby!

Oh yeah, time to get down and dirty!

Time to organize and analyze!

All these hours and now I get to reap the benefit!

Time to see just what I learned…
Analysis paralysis is an anti-pattern, the state of over-analyzing (or over-thinking) a situation so that a decision or action is never taken, in effect paralyzing the outcome.

Often contributed to an overwhelming number of variables and just as many potential decisions.
Have You Experienced Analysis Paralysis??

- So much data, so little time!!!
- In total – how many hours have you spent trying to analyze your data?
- What do you do after tracking?
Biohacking – The Answer to all my problems

**MY Definition** of Biohacking:

The art of making one’s self better, faster, smarter, stronger, in a short and more efficient amount of time (when compared to traditional methods)

I’m going to Biohack EVERYTHING!
Tracking helped me quantify what I wanted to change

- Improve performance in college (to graduate)
- Improve my reading speeds (academic & personally)
- Experienced times of low Motivation & Productivity
- Improve my work performance for a startup I launched recently
- Lower my (extremely high) Stress and Anxiety levels
Tracking my Struggles

My whole life I struggled with school/learning, generalized anxiety, and at one point in my life, even experienced a bout of severe depression.

I logged these difficulties and life occurrences through the following ways...

School – Grades I received

Reading – Time required to read pages in textbooks

Anxiety – Frequency and dosage of anti-anxiety medication use.

Depression Experience – Via mood journal & lost days of work.
Vitamins, Supplements, and Drugs

- Vitamin D3, B3 (niacin) B6, B12, Fish Oil, Lysine, Magnesium
- Artichoke Extract, Forskolin, Ginseng,
- Ginkgo Biloba
- Aniracetam, Piracetam, Oxiracetam, Noopept
- Choline
- GABA, Phenibut
- Tryptophan (no I didn’t eat a whole turkey), 5-HTP
- Tyrosine, Theanine,
- Every single one of Dave Asprey’s Products
- Adderall, Vyvanse, Modafinil, Provigil, Nuvigil,
- And so much more…
Nothing *really* stuck out

I tried so many different things, I learned quite a bit

But nothing really stuck out

Often times, *one* thing, made a difference, *some* of the time.

Until one day in my research I came across tDCS
What The Heck, is tDQS??

The ULTIMATE Biohacking Tool...
tDCS Explained

tDCS – Transcranial Direct Current Stimulation

A “non-invasive” neurostimulation technique utilizing very low current delivered to the brain areas of interest via electrode pads.

The **Anode** (positive electrode) - Works by increasing neuronal excitability, causing spontaneous cell firing.

The **Cathode** (negative electrode – decreases neuronal excitability.
Explosion in Scientific Interest

It’s estimated that over 625 studies will be released this year.
Figured, what the hell

- It’s just my brain, no big deal
- Decided to buy one...
  - Only available options - expensive or rudimentary
- So I looked through schematics & built my own

Used it a few times, but didn’t really notice any results...
My Badass Grandfather
The Plight of the Auditory Learner
My 1st home-made tDCS Device

Using my Brain… “For Science!”

Pretty fancy huh?
Brain Stimulation – *Engaged*

- Felt the current flowing
- Read a few chapters (not all of them)
- Took me all night (literally)
- Didn’t “notice” anything.
- Finally gave up, and figured I’d fail
The Test that Changed Everything

- Contemplated on the way to class:
  - Extra credit potential
  - How to tell my father I was a failure.
  - What my 7th year of undergrad would be like...

- Teacher handed me the test, laughed “good luck”

- **BUT.. TO MY AMAZEMENT:**
  - I looked down at the paper...
    and remembered concepts almost word for word

* I was so excited, I almost screamed and ran out of the class!!!
What is this magical tDCS??

- Good thing I didn’t leave – when we received our tests back, I had ACED it!
- This is the moment my life changed forever…
Researching other uses

- After this experience, I could not feed my mind information fast enough. I wanted to know **everything**
  - I read & read & read some more

- I remembered reading a few studies with tDCS and anxiety

- Ready for another experiment, I decided to try it out!

- Believe it or not, in just one week I was able to cut my anxiety medication in **half**. Again in another two weeks. And now, I **no longer take medication** to treat my anxiety...
Sounds too good to be true, but tDCS is being used Everywhere

- University of Arizona proved they could double student’s learning rates
- About a year ago, the United States Defense Advanced Research Projects Agency (DARPA) release a report stating they’ve been able to use tDCS to train both snipers, and fighter jet pilots in half the time it normally takes.
My most recent experience...

- I got very sick, which continued long after hospital stay.
- I began to get depressed, thinking I would always be sick and never live a normal life again.
- I lost friends, days at a time of work
- Was prescribed all sorts of medications, nothing helped.
- Finally I tried tDCS…. And I found the light at the end of the tunnel..
EVERYONE, should know about tDCS

After my experiences with tDCS, I realized that everyone who want’s to experience it for themselves, should have readily available access to it.

I built my first device at radio shack for $15 → It uses the same technology used in the $300+ units

If I had to choose to do one thing in this life, just one thing, it would be to share this technology with those who need it...

It changed my life, and I believe it can change others
I am here, to bridge the gap between the Data Gathering, and the Data Influencing.

The Neurons in our brains control nearly every little thing within our bodies.

tDCS provides a remarkable tool which allows us to communicate with our brains in the natural language they use everyday...

...Electricity