

Dopamine Nation: Finding Balance in the age of indulgence.

Anna Lembke

Within this book Anna Lembke gives an account of some stories and general patterns from her time as a psychiatrist. She talks about the various addictions that many of her patients face and how the addictions that many of her patients face generally have the same root cause which traces back to dopamine. This is because of reward prediction error and downregulation of dopaminergic receptors. Initial addictive vice, gives huge deltas in dopamine, but with chronic exposure this delta decreases and the pain aspect of dopamine increases. That is as you increase the pleasure aspect of dopamine the pain aspect also increases.

So as to optimize dopamine, it is best to create it from things that will not saturate the receptors and cause downregulation which will bias the pain side of the dopamine balance more so. As an individual becomes more and more addicted they need more and more of that given addictive substance to reach just baseline states of dopamine. This is due to the fact that there are a lack of dopamine stores within the nucleus accumbens and this causes the downregulation of the receptors.

To mitigate the addiction within her patients Anna came up with an algorithm to have a logical approach in decreasing the addiction within the individual. The algorithm she came up with is aptly named after the book "DOPAMINE". First you need **data** to come up with a plan on what needs to be optimized in the first place. The second is **objectives**. This is what the end goal is pertaining to the mitigation of the given addictive activity. Next is **problems**, that is identifying the problems that the substances are causing within various aspects of life. Next step is **abstinence**. This is a very important step of the process as this allows for upregulation of the dopamine system. Abstinence of 30 days is required to complete this upregulation. Next is **mindfulness**; this is akin to the old buddhist saying wherein the monk lets his thoughts flow freely like a monkey going from one branch to the other. Being aware of the thoughts, but not acting upon them. Next is **insight**, from the experience of the abstinence what new observations can you leverage to deploy a long term plan wherein you can moderate dopaminergic impulses whether through consuming the given activity in moderation or abstinence completely. The next letter is **next steps** and that is what to do and what to put the newfound time and energy towards. Last is **experiment**, this is to change things slightly to see what combination of variables maximize your happiness.

Anna ends the book off by talking about things like prosocial pressure and the value of telling the truth. Anna also talks about how certain religions and addictions groups such as alcoholics anonymous, leverage these principles to create group environments conducive to the lessening of addiction. They do this under one primary axiom wherein members must tell the truth to create value for the club goods within the given groups. This creates a perfect combination of both prosocial pressures to tell the truth and the club goods allow for increased status within the given group through the act of abstinence.