

Dopamine Nation – Anna Lemke, M.D.

Scientists rely on dopamine as a kind of universal currency for measuring the additive potential of any experience. The brain processes pleasure and pain in the same place. That moment of wanting is the brain's pleasure balance tipped to the side of pain. (2) The secret to finding balance is combining the science of desire with the wisdom of recovery. (3)

Supply has created demand as we all fall prey to the vortex of compulsive overuse. "Limbic capitalism." (20) The act of consumption itself has become a drug. (23)

Seventy percent of world global deaths are attributable to modifiable behavioral risk factors. (29)

The pursuit of personal happiness has become a modern maxim, crowding out other definitions of the 'good life.' (34) Perceiving children as psychologically fragile is a quintessentially modern concept. (35)

Dopamine may play a bigger role in the motivation to get a reward than the pleasure of the reward itself. *Wanting* more than *liking*. (49)

Heavy, prolonged consumption of high-dopamine substances eventually leads to a dopamine deficit state. (55) A please-pain balance tilted to the side of pain is what drives people to relapse even after sustained periods of abstinence. (57) "Dysphoria driven relapse" is a return to using not by the search for pleasure but the desire to alleviate physical or psychological suffering. (57)

Cue-dependent learning. This transient dopamine mini-deficit state is what motivates us to seek out our reward (Pavlovian conditioning). Dopamine levels below baseline drive craving. Craving translates into purposeful activity to obtain the drug. (60)

Learning also increases dopamine firing in the brain. (63) Although brain changes are permanent, we can find new synaptic pathways to create healthy behaviors. (64)

Dopamine recovery:

- D: Data
- O: Objectives
- P: Problems
- A: Abstinence
- M: Mindfulness
- I: Insight
- N: Next Steps
- E: Experiment

The world is sensory rich and causal poor. (75)

Self-binding: Way we intentionally and willingly create barriers between ourselves and our drug of choice in order to mitigate compulsive overconsumption. (91) Three broad categories of strategy: physical (space); chronological (time); categorical (meaning). (92)

Delay discounting refers to the fact that the value of a reward goes down the longer we have to wait for it. (102) "Temporal horizons" shrink when we're under the sway of an addictive drug. When participants chose immediate rewards, emotion-and-reward processing parts of the brain lit up. When participants delayed their reward, the prefrontal cortex – the part of the brain involved in planning and abstract thinking – became active. (105)

Categorical self-binding limits consumption by sorting dopamine into different categories: those subtypes we allow ourselves to consume, and those we do not. (111) Binding oneself is a way to be free. (118)

It goes against our innate reflex to avoid pain and pursue pleasure. It adds to our cognitive load. (152) The application of pain triggers the body's own endogenous (self-made) opioids. (154) Leaning too hard and too long on the pain side of the balance can also end up in a persistent dopamine deficit state. (167)

Those with less than a high school education in low-paying jobs are working less than ever, whereas highly educated wage earners are working more. This over focus on work can keep us from the intimate connections with friends and family. (169)

Radical honesty is not just helpful for limiting compulsive overconsumption but also at the core of a life well lived. Telling the truth is painful. (171) Lies arguably have some adaptive advantage when it comes to competing for scarce resources. But lying in a world of plenty risks isolation, craving, and pathological overconsumption. (172)

Radical honesty promotes awareness of our actions. It fosters intimate human connections. It leads to a truthful autobiography, which holds us accountable not just to our present but also to our future selves. Telling the truth is contagious. (176)

In the Odysseus myth, the slaying was in the telling. Recounting our experiences gives us mastery over them. (177)

Denial is likely mediated by a disconnect between the reward pathway part of our brain and the higher cortical brain regions that allow us to narrate the events of our lives, appreciate consequences, and plan for the future. Many forms of addiction treatment involve strengthening and renewing connections between these parts of the brain. (177)

Telling the truth draws people in, especially when we're willing to expose our vulnerabilities. This is counterintuitive because we assume that unmasking the less desirable aspects of ourselves will drive people away. In fact, the opposite happens. People come closer. (182) Intimacy is its own source of dopamine. (183)

While truth-telling promotes human attachment, compulsive overconsumption of high-dopamine goods is the antithesis of human attachment. Consuming leads to isolation and indifference, as the drug comes to replace the reward obtained from being in relationship with others. (184)

The stories we narrate about our lives not only serve as a measure of our past but can also shape future behavior. The way we tell our personal stories is a marker and predictor of mental health. Start telling stories that accurately portray responsibility. Even when people have been victimized, if the narrative never moves beyond victimhood, it's difficult for healing to occur. One of the jobs of good psychotherapy is to help people tell healing stories. If autobiographical narrative is a river, psychotherapy is the means by which that river is mapped and, in some cases, rerouted. Healing stories adhere closely to real-life events. Seeking and finding the truth, or the closest approximation possible with the data at hand, affords us the opportunity for real insight and understanding, which in turns allows us to make informed choices. (187)

Empathy without accountability is a shortsighted attempt to relieve suffering. Take responsibility if not for the event itself, then for how they react to it in the here and now, that person is empowered to move forward with their life. (187)

Concepts of AA: "Rigorous Honesty" and "Searching and Fearless Moral Inventory". (188)

Aeschylus said: “We must suffer, suffer into truth.” (189)

A truthful autobiographical narrative further allows us to be more authentic, spontaneous, and free in the moment. “The false self” is a self-constructed persona in defense against intolerable external demands and stressors, which can lead to feelings of profound emptiness. (191)

When our live experience diverges from our projected image, we are prone to feel detached and unreal, as fake as the false images we’ve created. Psychiatrists call this feeling derealization and depersonalization. The antidote is authentic self and radical honesty is a way to get there. When we’re no longer working to present a false self, we’re more open to ourselves and others. (192)

Truth-telling engenders a plenty mindset. Lying engenders a scarcity mindset. When resources are scarce, people are more invested in immediate gains, and are less confident that those rewards will still be forthcoming in some distant future. (196)

Having too much material wealth can be as bad as having too little. Dopamine overloads impairs our ability to delay gratification. Just as it is possible to have a scarcity mindset amidst plenty, it is also possible to have a plenty mindset amidst scarcity. The feeling of plenty comes from a source beyond the material world. Believing in or working toward something outside ourselves, and fostering a life rich in human connectedness and meaning, can function as social glue by giving us a plenty mindset even in the midst of abject poverty. Finding connectedness and meaning requires radical honesty. (197)

Shame makes us feel bad about ourselves as people, whereas guilt makes us feel bad about our actions while preserving a positive sense of self. Shame is a maladaptive emotion. Guilt is an adaptive emotion. The problem with the shame-guilt dichotomy is that experientially, shame and guilt are identical. In that moment of feeling shame-guilt, a gut punch of emotion, the feeling is identical: regret mixed with fear of punishment or the terror of abandonment. (207)

The difference in the shame-guilt dichotomy is not how we experience the emotion, but how others respond to our transgression. If others respond by rejecting, condemning, or shunning us, we enter the cycle of destructive shame. If others respond by holding us closer and providing clear guidance for redemption/recovery, we enter the cycle of prosocial shame. Prosocial shame mitigates the emotional experience and helps us to stop or reduce the shameful behavior. (208)

When we’re accountable to ourselves, we’re able to hold others accountable. We can leverage shame without shaming. (219)

Lessons of the Balance:

1. The relentless pursuit of pleasure (and avoidance of pain) leads to pain.
2. Recovery begins with abstinence.
3. Abstinence resets the brain’s reward pathway and with it our capacity.
4. Self-binding creates literal and metacognitive space between desire and consumption.
5. Medications can restore homeostasis but consider what is lost by medicating the pain.
6. Pressing on the pain side resets our balance to the side of pleasure.
7. Beware of getting addicted to pain.
8. Radical honesty promotes awareness, enhances intimacy, and fosters a plenty mindset.
9. Prosocial shame affirms that we belong to the human tribe.
10. Instead of running away from the world, we can find escape by immersing ourselves in it.