



Your Brain on Porn by Gary Wilson

"I count him braver who overcomes his desires than him who conquers his enemies; for the hardest victory is over yourself."

- Willie Mays

I chose this book for the review because it seems so obviously important today. When you look around yourself, you can see sex practically everywhere but porn is the pinnacle of this trend. That's why it's crucial to talk about it, study its effects, especially how it affects your brain. But what hooked me immediately is two polls that may be will not show exact the reality but an interesting trend to think about:

- In France, a 2008 survey found that 20 percent of younger French men had no interest in sex.

Source - Henry Samuel, "French women 'are the sexual predators now'," *The Telegraph*, March 7, 2008.

- In the newspaper Japan Times in 2010 poll was stated that more than 36% of men 16 to 19 had no interest in sex

Source - Yuri Tomikawa, "No Sex, Please, We're Young Japanese Men," *The Wall Street Journal*, January 13, 2011

Reward circuitry

Reward circuitry - It compels to do things that further your survival and pass on your genes. When you do something that should in theory

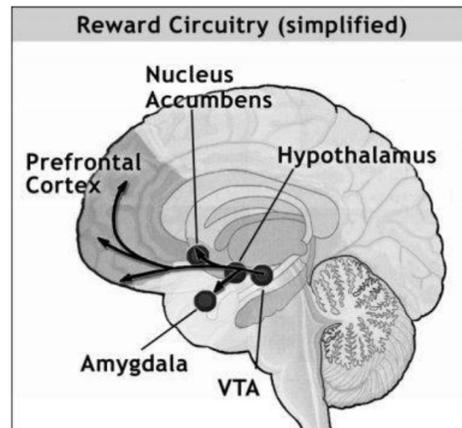
Dopamine is where desire and motivation to pursue sex arises from. It is about **seeking and searching**, not the pleasure itself.

further it, you get the **dopamine** in your brain. It is like the gas for the reward circuitry.

Dopamine urge is basically barometer by which you determine any experience. Dopamine says what is good and what is bad for your survival.

Dopamine → want!

Opioids → like!



Normal reinforces are - food, sex, love, friendship, novelty.

Supernormal Stimulus

Supernormal stimuli - exaggerated version of normal stimuli that we falsely perceive as valuable. For example male jewel beetles fucking brown bottles because they are big and brown = super sexy for beetles.

Dopamine fires up for emotions and stimuli that are present in porn:

- Surprise, shock
- Anxiety (When you use porn that isn't consistent with your values or sexuality)
- Seeking, searching (Wanting, anticipating)

It's dangerous when something:

- registers as an especially 'valuable', that is, exaggerated version of a thing that our ancestors (and we) evolved to find irresistible (high-calorie food, sexual arousal)
- is available conveniently in limitless supply (which is not found in nature)
- comes in lots of varieties (abundant novelty)
- and we chronically overconsume it

Sexual Conditioning

Now let's apply these both concepts to porn and see why it's dangerous.

What does a brain do when it has unlimited access to a super-stimulating reward it never evolved to handle? Some brains **adapt** – and not in a good way.

If you chronically overstimulate yourself, your brain may start to work against you. It protects itself against excessive dopamine by decreasing its responsiveness to it, and you feel less and less gratified. This decreased sensitivity to dopamine pushes some users into an even more determined search for stimulation, which, in turn, drives lasting changes, actual physical alterations of the brain.

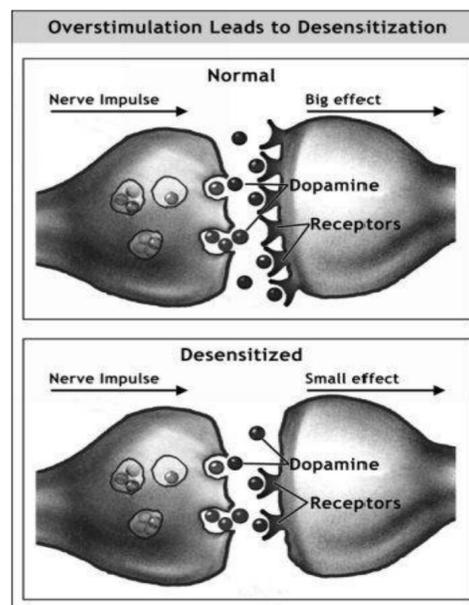
'Porn goes in like a needle but comes out like a fishhook.'

Perhaps you **wire your sexual excitement** to a screen, constant novelty, voyeurism or bizarre acts. Worst case, you eventually need both porn's content and delivery-at-a-click to sustain arousal.

Much as **Pavlov's dog** learned to salivate to the bell, today's porn users learn to wire unexpected stimuli to their erections. The brain's primitive reward circuitry isn't aware that the bell isn't food, or that the novel porn isn't 'my' porn. Its axiom is simply 'Dopamine good'.

Each of these cues, or triggers, can now light up your reward circuit with the promise of sex... that isn't sex. Nevertheless, **nerve cells may solidify these associations** with sexual arousal by sprouting new branches to strengthen connections. The more you

However our preferences arise, our brains evolved to record what turns us on. This phenomenon rests on a crucial neural principle: **Nerve cells that fire together wire together.**



use porn the stronger the nerve connections can become, with the result that you may ultimately need to be a voyeur, need to click to new material, need to climax to porn to get to sleep, or need to search for the perfect ending just to get the job done.

Addiction

3 Big Cs of Addiction

1. **Negative consequences** in physical, social, occupational, financial and psychological domains.
2. **Loss of control** in using the substance or engaging in the behaviour with increasing frequency or duration, larger amounts or intensity, or in increasing the risk in use and behaviour to obtain the desired effect.
3. **Craving** and preoccupation with obtaining, engaging in or recovering from the use of the substance or behaviour.

Changes that show up in all addictions, whether substance or behavioural:

1. **Desensitisation**, or a numbed response to pleasure
2. **Sensitisation**, or an unconscious super-memory of pleasure that, when activated, triggers powerful cravings
3. **Hypofrontality**, or reduced brain activity in the prefrontal regions, which weakens willpower in the face of strong subconscious cravings

The sensitised addiction pathways are screaming 'Yes!' while your 'higher brain' is saying, 'No, not again!' While the executive-control portions of your brain are in a weakened condition the addiction pathways usually win.

4. **Dysfunctional stress circuits**, which can make even minor stress lead to cravings and relapse because they activate powerful sensitised pathways

To sum up, if these neuroplastic changes could speak, desensitisation would be moaning, *'I can't get no satisfaction'*. At the same time, sensitisation would be poking you in the ribs saying, *'hey, I've got just what you need'*, which happens to be the very thing that caused the desensitisation. Hypofrontality would be shrugging and sighing, *'bad idea, but I can't stop you'*. Dysfunctional stress circuits would be screaming, *'I NEED something NOW to take the edge off!'*

Summary

There was a very interesting experiment with the mice and dopamine. The mice had a lever that they can press any time they want. When they press the button, a special optical sensor, which controls specific neurons in their brain, activates their dopamine neurons. Mice pushed the button uncontrollably, they didn't want food and sex, they wanted dopamine. They didn't care about anything else but were pushing the button. Now tell me - are you smarter than a mouse?