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Can You Get Over an Addiction?

By MAIA SZALAVITZ JUNE 25, 2016

I SHOT heroin and cocaine while attending Columbia in the 1980s, sometimes injecting many times a day and leaving scars that are still visible. I kept using, even after I was suspended from school, after I overdosed and even after I was arrested for dealing, despite knowing that this could reduce my chances of staying out of prison.

My parents were devastated: They couldn't understand what had happened to their "gifted" child who had always excelled academically. They kept hoping I would just somehow stop, even though every time I tried to quit, I relapsed within months.

There are, speaking broadly, two schools of thought on addiction: The first was that my brain had been chemically "hijacked" by drugs, leaving me no control over a chronic, progressive disease. The second was simply that I was a selfish criminal, with little regard for others, as much of the public still seems to believe. (When it's our own loved ones who become addicted, we tend to favor the first explanation; when it's someone else's, we favor the second.)

We are long overdue for a new perspective — both because our understanding of the neuroscience underlying addiction has changed and because so many

existing treatments simply don't work.

Addiction is indeed a brain problem, but it's not a degenerative pathology like Alzheimer's disease or cancer, nor is it evidence of a criminal mind. Instead, it's a learning disorder, a difference in the wiring of the brain that affects the way we process information about motivation, reward and punishment. And, as with many learning disorders, addictive behavior is shaped by genetic and environmental influences over the course of development.

Scientists have documented the connection between learning processes and addiction for decades. Now, through both animal research and imaging studies, neuroscientists are starting to recognize which brain regions are involved in addiction and how.

The studies show that addiction alters the interactions between midbrain regions like the ventral tegmentum and the nucleus accumbens, which are involved with motivation and pleasure, and parts of the prefrontal cortex that mediate decisions and help set priorities. Acting in concert, these networks determine what we value in order to ensure that we attain critical biological goals: namely, survival and reproduction.

In essence, addiction occurs when these brain systems are focused on the wrong objects: a drug or self-destructive behavior like excessive gambling instead of a new sexual partner or a baby. Once that happens, it can cause serious trouble.

If, like me, you grew up with a hyper-reactive nervous system that constantly made you feel overwhelmed, alienated and unlovable, finding a substance that eases social stress becomes a blessed escape. For me, heroin provided a sense of comfort, safety and love that I couldn't get from other people (the key agent of addiction in these regions is the same for many pleasurable experiences: dopamine). Once I'd experienced the relief heroin gave me, I felt as though I couldn't survive without it.

Understanding addiction from this neurodevelopmental perspective offers a great deal of hope. First, like other learning disorders, for example, attention-deficit hyperactivity disorder or dyslexia, addiction doesn't affect overall

intelligence. Second, this view suggests that addiction skews choice — but doesn't completely eliminate free will: after all, no one injects drugs in front of the police. This means that addicts can learn to take actions to improve our health, like using clean syringes, as I did. Research overwhelmingly shows such programs not only reduce H.I.V., but also aid recovery.

The learning perspective also explains why the compulsion for alcohol or drugs can be so strong and why people with addiction continue even when the damage far outweighs the pleasure they receive and why they can appear to be acting irrationally: If you believe that something is essential to your survival, your priorities won't make sense to others.

Learning that drives urges like love and reproduction is quite different from learning dry facts. Unlike memorizing your sevens and nines, deep, emotional learning completely alters the way you determine what matters most, which is why you remember your high school crush better than high school math.

Recognizing addiction as a learning disorder can also help end the argument over whether addiction should be treated as a progressive illness, as experts contend, or as a moral problem, a belief that is reflected in our continuing criminalization of certain drugs. You've just learned a maladaptive way of coping.

Moreover, if addiction resides in the parts of the brain involved in love, then recovery is more like getting over a breakup than it is like facing a lifelong illness. Healing a broken heart is difficult and often involves relapses into obsessive behavior, but it's not brain damage.

The implications for treatment here are profound. If addiction is like misguided love, then compassion is a far better approach than punishment. Indeed, a 2007 meta-analysis of dozens of studies over four decades found that empowering, empathetic treatments like cognitive behavioral therapy and motivational enhancement therapy, which nurture an internal willingness to change, work far better than the more traditional rehab approach of confronting denial and telling patients that they are powerless over their addiction.

This makes sense because the circuitry that normally connects us to one another socially has been channeled instead into drug seeking. To return our brains to normal then, we need more love, not more pain.

In fact, studies have not found evidence in favor of harsh, punitive approaches, like jail terms, humiliating forms of treatment and traditional “interventions” where families threaten to abandon addicted members. People with addictions are already driven to push through negative experiences by their brain circuitry; more punishment won’t change this.

In line with the idea that development matters, research also shows that half of all addictions — with the exception of tobacco — end by age 30, and the majority of people with alcohol and drug addictions overcome it, mostly without treatment. I stopped taking drugs when I was 23. I always thought that I had quit because I finally realized that my addiction was harming me.

But it’s equally possible that I kicked then because I had become biologically capable of doing so. During adolescence, the engine that drives desire and motivation grows stronger. But unfortunately, only in the mid-to-late 20s are we able to exert more control. This is why adolescence is the highest risk period for developing addiction — and simple maturation may be what helped me get better.

At the time, nearly all treatment was based on 12-step groups like Alcoholics Anonymous, which help only a minority of addicted people. Even today, most treatment available in rehab facilities involves instruction in the prayer, surrender to a higher power, confession and restitution prescribed by the steps.

We treat no other medical condition with such moralizing — people with other learning disorders aren’t pushed to apologize for their past behavior, nor are those affected by schizophrenia or depression.

Once we understand that addiction is neither a sin nor a progressive disease, just different brain wiring, we can stop persisting in policies that don’t work, and start teaching recovery.

Indeed, if the compulsive drive that sustains addiction is directed into healthier channels, this type of wiring can be a benefit, not just a disability. After all, persisting despite rejection didn't only lead to addiction for me — it has also been indispensable to my survival as a writer. The ability to persevere is an asset: People with addiction just need to learn how to redirect it.

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