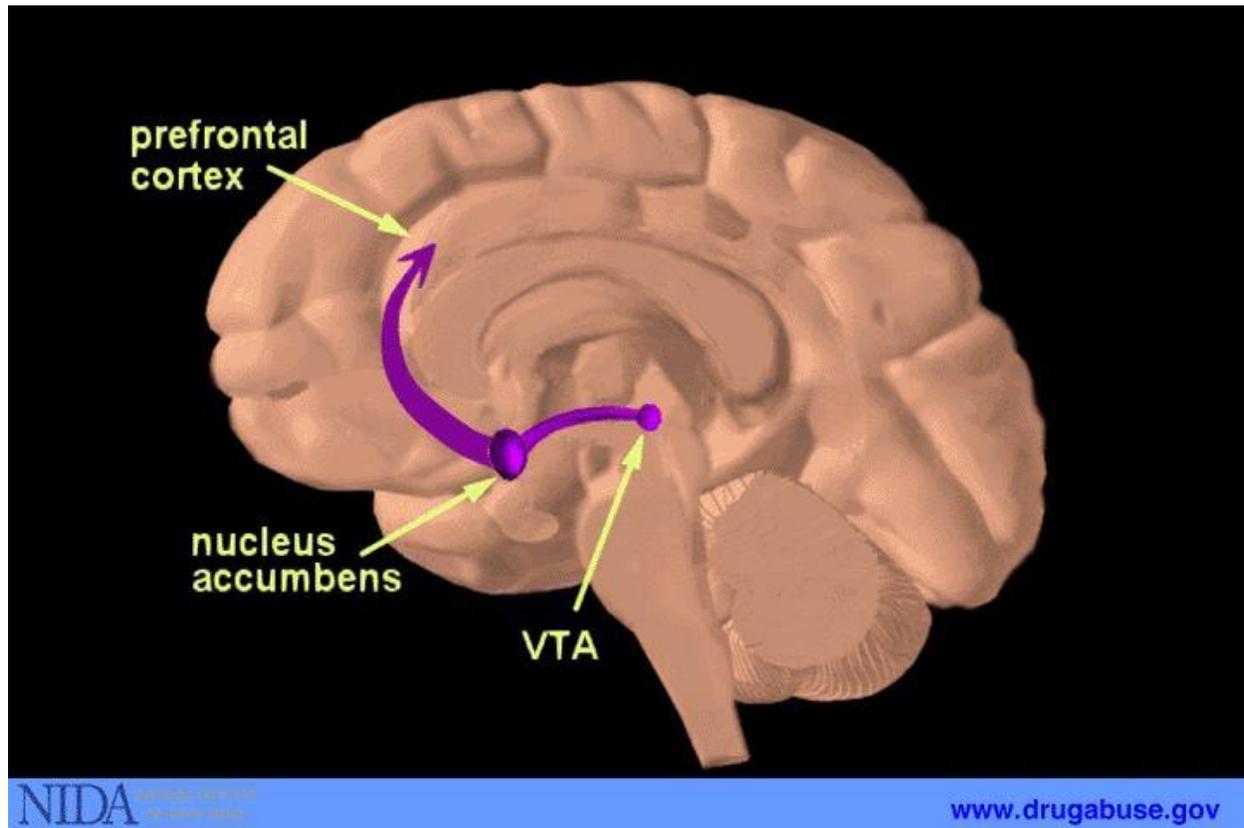


Daily Life with Christ-59. Understanding brain addictions: Introduction to the five key aspects of the mind and brain.



The LORD mandates that we love God with all our minds (Matt. 22:37-39) and put off the passions of the flesh, like fornication (Col. 3:5), and making our sense appetites (“bellies”) gods (Philip. 3:19). Yet, some Christians find themselves suffering from what is known as brain addictions, which they cannot seem to break no matter how many times they study their Bibles, rededicate their lives to the Lord, and affirm another New Year’s Resolution. Many Christians are addicted to drugs, nicotine, alcohol, food, entertainment, porn, video games, and a thousand other earthly sense pleasures. While there is nothing wrong with many these pleasures (when they are not addictions), there is everything wrong when they bring about a change in the structure of a normal and healthy brain corrupting it into what is known as an addictive brain. The person with an addictive brain has very little control, if any, over his sense appetites, which means that he has lost control over his rational nature. A person with an addictive mind will continue in self-destructive activities in spite of his conscious awareness of this destructiveness to self and others. In sum, he has become irrational due to addiction caused by the irrational parts of the brain (limbic system) hijacking the rational part, the mind (in the pre-frontal cortex). He no longer acts like a rational human being.

The goal in this series is to enable believers to better understand the science of brain addiction so they can take steps to break brain addictions and get back their unique rationality as flourishing unique human beings made in the image of God. Just like any other truth in philosophical

realism, once the believer gets it, he will see how these truths fit perfectly with all the truths of the Word of God. The added benefit is that he will think more in line with classical Christian view of anthropology instead of the more modern Cartesian view of the soul (like a ghost in the machine).

In this essay, I introduce five key concepts of human mentality.

1. The cognitive unconscious (CU). This is our mind that is below the level of consciousness. It processes about 10 million bits per second. It is amazing how much information we can take in and not even be aware of it. Although, this truth is self-evident, further validation has been established by experiments where people were very quickly shown various symbols—so fast that they do not see everything on a conscious level. Yet, when asked to pick which symbols they like the most, they pick the ones that also had a smiley face with them even though on a conscious level they never saw the smiley faces. The CU is always nudging the conscious self to make this or that decision based on patterns of urges, intuitions, inner likes and dislikes. These patterns of likes and dislikes have developed since childhood—and some are genetic. I would add that this power wields incredible influence over a person that he is not aware of unless he is very active in being unbiased in his rational consciousness. It is from these likes/dislikes that often get the conscious mind to find reasons for what one wants to believe and do—without him realizing it. All it takes is a liking or disliking of someone or something in the CU to get the conscious mind to begin the filtering process of acceptance or rejection. It is the CU that motivates the person to only look at data to support its intuition/desire. There are many examples of this in everything from deciding to be part of what local church to what kind of political party or candidate one supports--and even attitude toward climate change (e.g., having a strong opinion without studying the facts). All too often, it is our desires that selects the favorable "facts." The only way to break our inherent bias is through the conscious and deliberate rationality of the conscious self with a full commitment to Truth as such--come what may.

2. The conscious self. This is the area of rational thinking on a conscious level. It is much slower than the CU—it only processes about 40 bits of information per second. However, it has properties beyond the material: it is rational; it is able to look into the past/present/future; it transcends any material cause; it conceives of the spiritual, et al. Its transcendent properties demonstrate that it is immaterial and thus immortal. This is the thinking property of the soul, a soul that animates the entire body.

The CU and the conscious aspects of our beings can be viewed as an iceberg. What we are aware of is very small in comparison to the CU. However, unlike the iceberg, in the case of a human man, the top can control and develop much of what is beneath the irrational surface.

Now let us consider the brain. For our studies, we will consider three parts of the brain, see attached illustration.

3. The first part of the brain in this study is the prefrontal cortex. As I have mentioned, this is where rational thinking takes place. This has been called the CEO of the brain. In this area, we think, plan, and are involved in a multitude of rational decisions. As long as this is in control, a person does not have an addictive brain. Being in control is when a person does exactly what he knows is right and what he should do. Anytime, a person makes destructive choices against what he rationally knows, then his rationality has been hijacked by irrational desires in the lower parts of the brain.

4. The second part of the brain is the nucleus accumbens, which is the brain's pleasure center. This is one of the regions that both humans (and rats/monkeys) repeatedly stimulate to the exclusion of everything else in self stimulation studies. It's located above and just behind your sinuses, near the midline of the brain. This region has been associated with a wide range of pleasures. This pleasure can come from the VTA (below) or from the pre-frontal cortex (above). In the former, it would be pleasure from drugs/alcohol. In the latter, it would be from contemplation of a loved one or of the love of God.

5. The third major brain region involved is the ventral tegmental area (VTA), which is in the midbrain, at the top of the brain stem—the most primitive part of the brain. The VTA is located very near the middle of the head just slightly above the ears, a few inches behind and a little below the nucleus accumbens. Brain cells in the VTA project to both the nucleus accumbens and the prefrontal cortex and can therefore influence both pleasure and self-control. It is the VTA that produces the addiction molecule known as dopamine.

In the next essay, I will begin to show how the three areas of the brain interact with each other. In anticipation, let me just give an illustration of an addictive brain. The addictive brain is when the VTA produces the extremely powerful chemical dopamine and by doing so hijacks the conscious mind in the pre-frontal cortex. Although dopamine was once thought as producing pleasure, it is now widely recognized that it does not produce pleasure. Rather, it produces cravings, cravings that can actually control the mind in the pre-frontal cortex. The power of this craving can be seen in the addicted person who cannot resist taking the addictive substance (drug, nicotine, alcohol, porn, caffeine) even though he knows (pre-frontal thinking) that it is destroying him and his family. Again, it is not so much because of pleasure—that is a different issue. Again, the dopamine is all about the cravings. It can be craving for anything. I recognize this in my own life the other day when I binged on cinnamon raisin muffins and almonds. I knew that I had enough, but I just wanted to eat more and more, not for pleasure, but just because of the craving--a craving that I consciously gave into over the holidays with the result of gaining

weight, which is not good for my own health. I now recognize that my pre-frontal cortex had been hijacked by dopamine. My first step in breaking this brain addiction is to control my environment, which means don't buy anymore raisin muffins. Only after breaking the brain addiction, could I have them around again and eat just 1 instead of 3-4. Understanding this (proper knowledge) gives me a lot more sympathy for those who are addicted to psychogenic substances like nicotine, alcohol, or cocaine, which can produce cravings that are far more powerful than my cravings for raisin muffins.

On the Glory Road,

Pastor Don