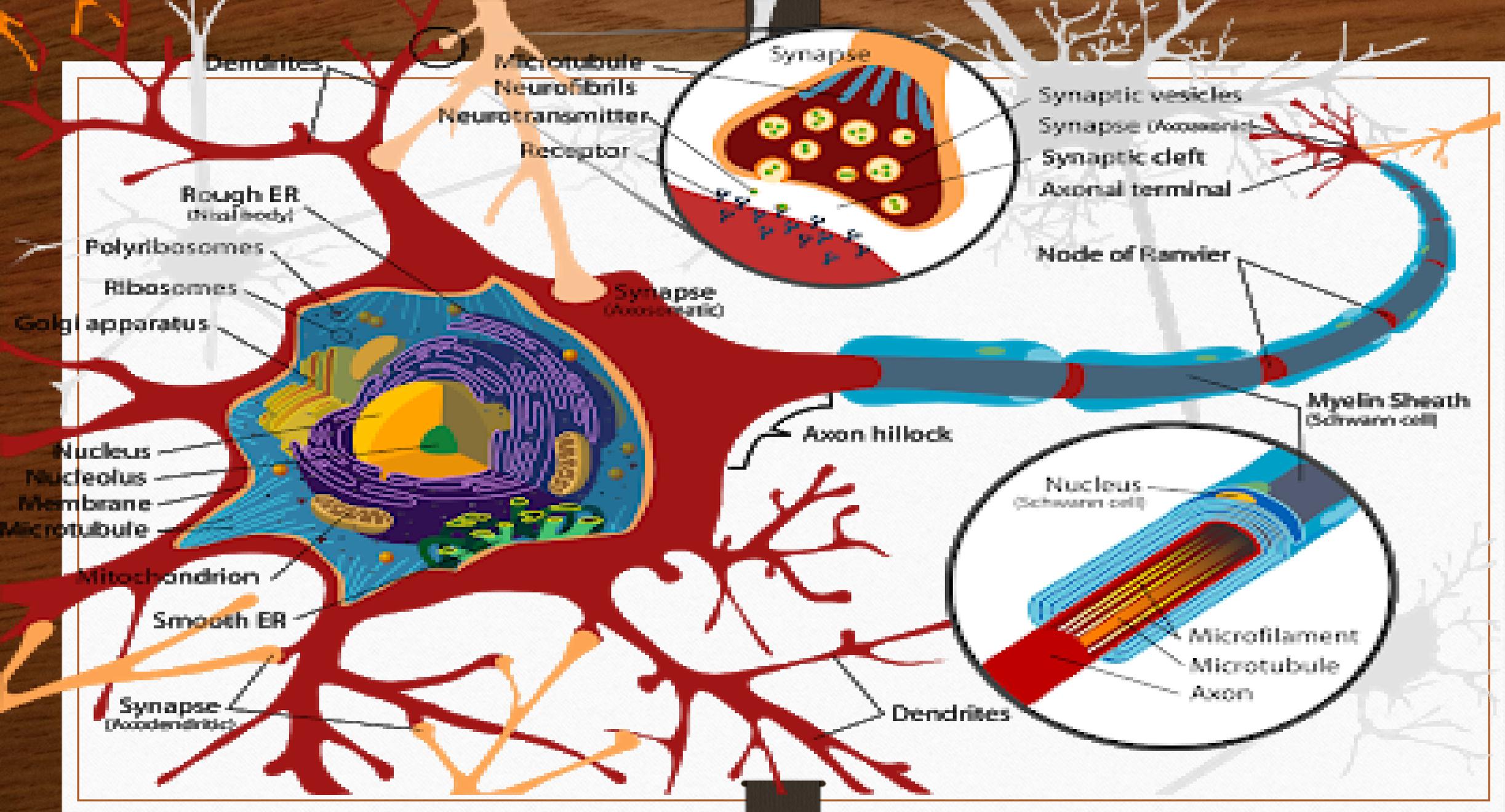


NUERO-SCIENCE

PART 2: NEURO SCIENCE

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- The matter holding the brain cell, surrounding the brain cell is what scientists call the glia

- SCIENTISTS SEEM TO THINK THAT IT MAY ACTAULLY BE THE THINCKNESS OF connections, and the number of connecting brains cells to each other is what creates a persons overall intelligence
- Think of it this way: the thicker the fiber optic bandwidth, the sharper and faster The signal.



- Take 15 seconds to answer: What are the benefits of being stupid? What are the benefits of being smart? Do you think Does a lot of drug use make you stupid or not?



- NEUROTRANSMITTERS ARE THOUGHT TO create THE FEELINGS THAT we all have

- There happen to currently only be 5 major neuro transmitters that Scientists Know of currently.
- dopamine
- Serotonin
- GABA
- Epinephrine
- Nor-Epinephrine

- THE INTELLIGENT COMMUNICATION IS THOUGHT BY SOME SCIENTISTS TO BE CARRIED IN THE ELECTRICAL IMPULSES FROM BRAIN CELL TO BRAIN CELL

- These signals are called “action potentials”, which are voltage traveling through the axon fiber

- But the brain doesn't just send communication with electricity, like cable might send an electrical message to a tv,
- for every bit of voltage, there may be a little bit of the 5 chemicals that are either released, or sucked up by each cell in the communication chain, making it so that each neuron in the network is basically voting on how they feel about the information in the electrical signal.

- If you want to have more action potentials about different things, then you have to
- “upload”
- data into this electrical model, so that you may have more channels to watch in your head.
- What is the best way to upload data?

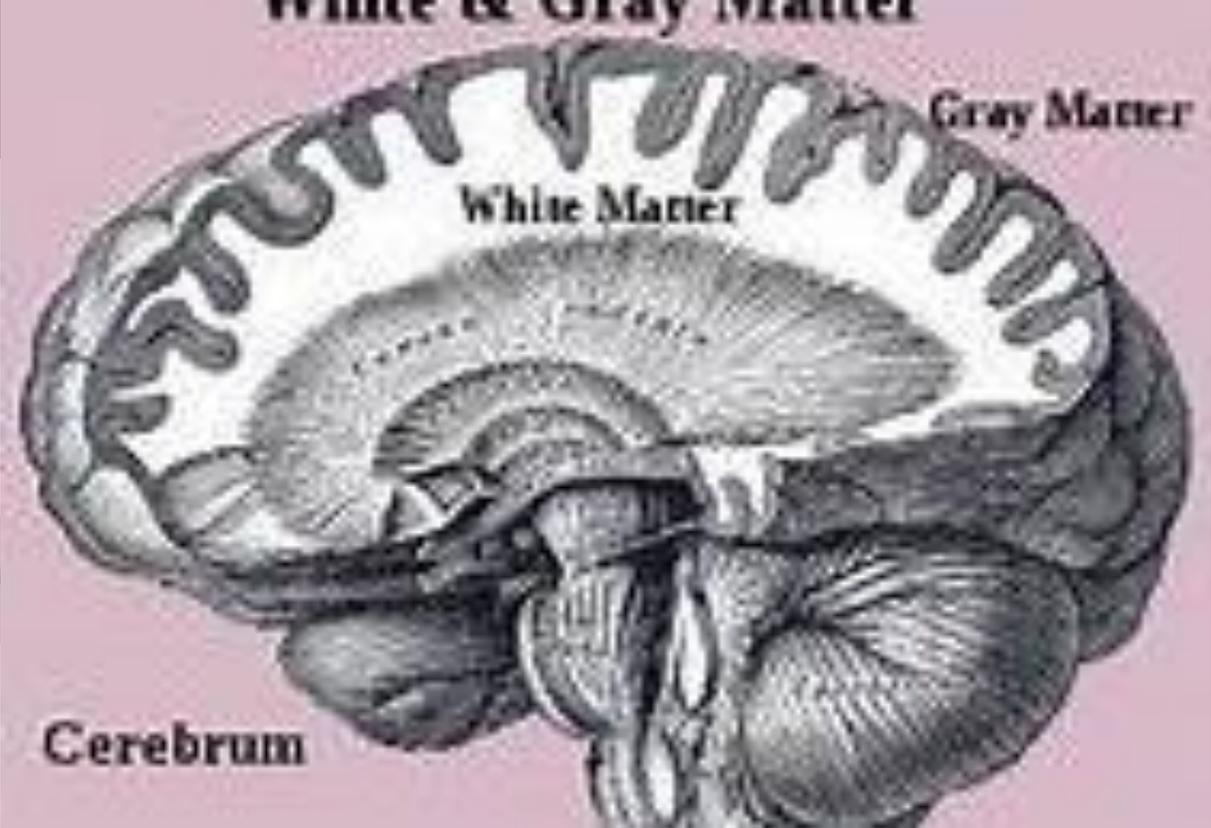
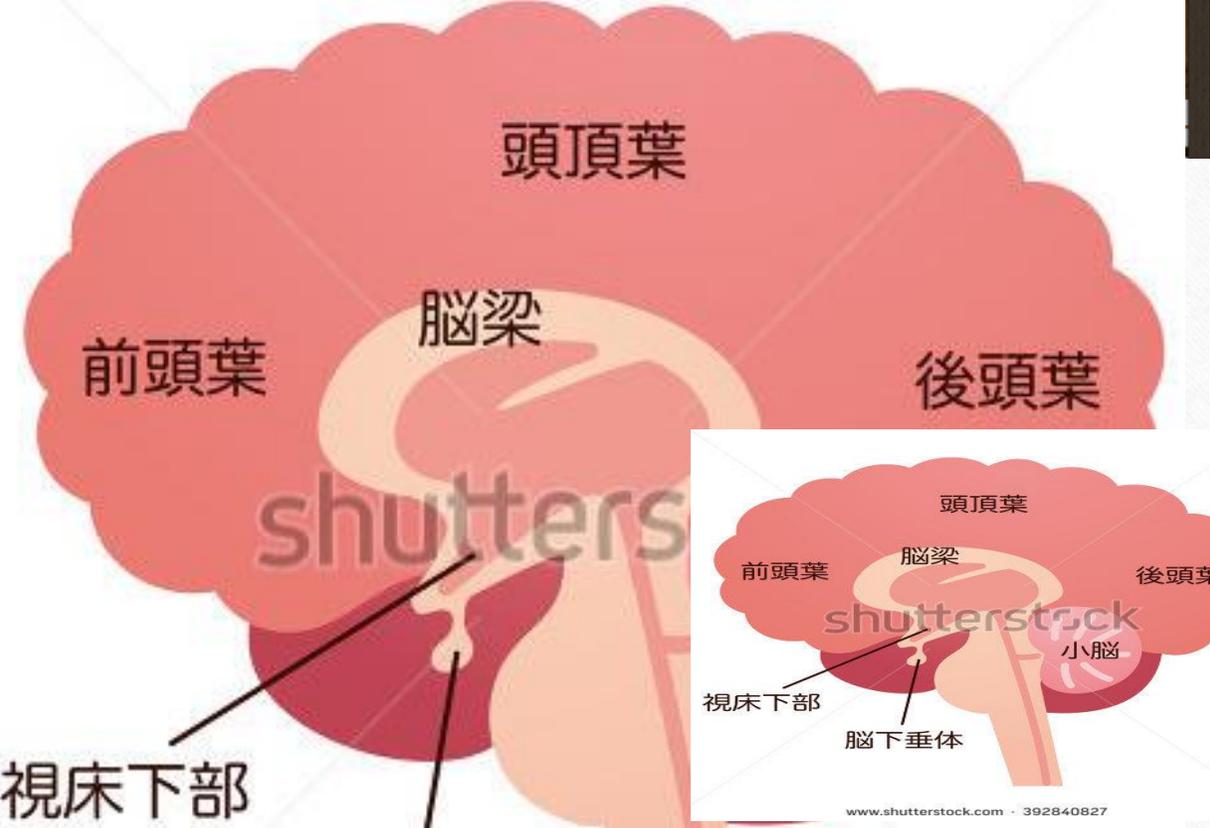
- NEURO SCIENCE IS A FIELD THAT IS VIRTUALLY JUST BEGINNING. SCIENTISTS ARE JUST NOW BEGINNING TO MAP THE BRAIN. THE SPECIFIC WAYS THAT DRUG USE PSYCHICALLY DESTROY PEOPLES BRAIN ARE ON THE HORIZON. FOR NOW, THE LEAST YOU NEED TO KNOW Is that drug use of coke and meth will eventually Diminish YOUR ABILITY TO FEEL PLEASURE BECAUSE OF THE DIMINISHED DOPAMINE RECEPTORS.

- DOPAMINE:
- When transmitted via action potentials helps with motivation
- Perhaps the reason it helps with motivation is because it makes us feel good, and therefore acts to reinforce these behaviors by “rewarding” us for that behavior
- Helps with movement when it is transmitted in the cerebellum

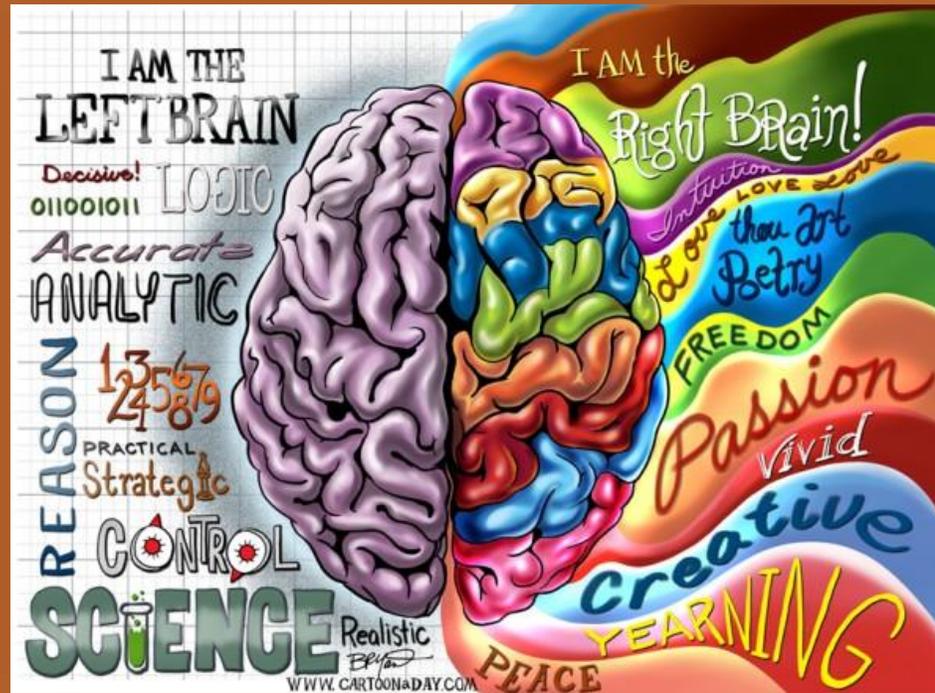
- SEROTONIN:
- Some scientists think that when serotonin is inside the brain cell, it can may cause anger, and when it is outside in the glia or synaptic cleft, being transmitted and communicated, this brings a sense of happiness, pleasure, even confidence and laughter. This is the idea behind ssri's that prevent serotonin from being sucked back into brain cells, thereby leaving the serotonin outside.

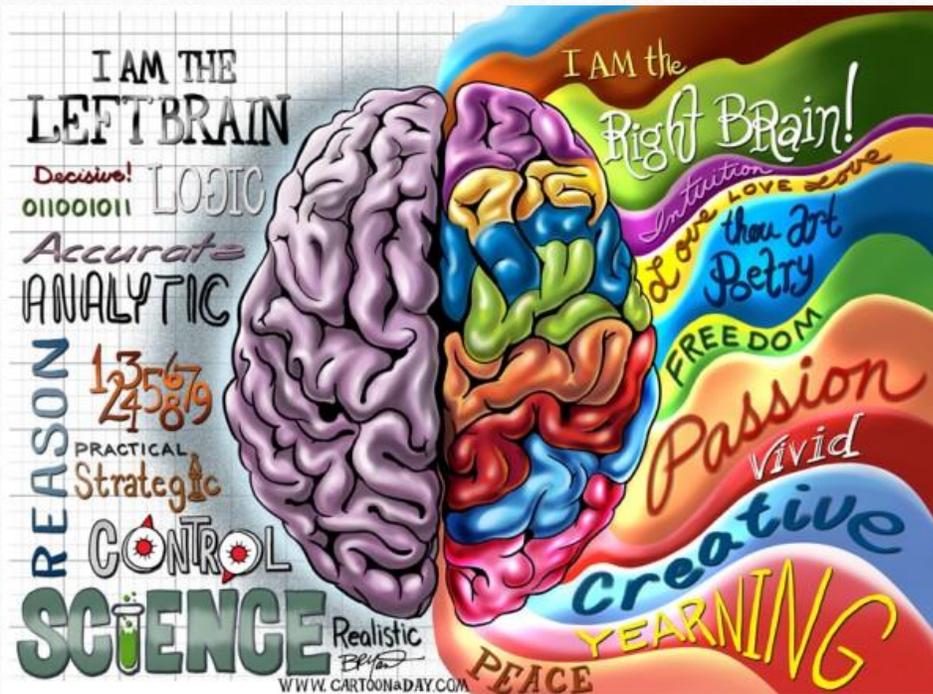
- Most of humans intense intelligence and awareness comes from the lower front side of the brain-
- the prefrontal cerebral cortex.
- The left side scientists have previously thought controls logical thought, and the right side deals more with emotions and creativity. But new science is coming in everyday, so stay tuned.

- Most of humans intelligence, or what separates us from other animals is thought to be our:
- Pre-Frontal cerebral Cortex



Thinking about the Brain





- This is to say, scientists used to think the right side is some what emotionally intelligent, and the left side is more calculating. But what will the future of learning about the brain hold for us? That is to say: the future “Intelligence” about “intelligence”

- The feelings we have about this “idea” will come from the neurotransmitters in our brain- whether they cause us fear, anxiety, Laughter, anger—it is all in the Chemicals. The way we feel about our thoughts will cause the most action in life, and thus direct our destiny to become our future selves. The more information you can collect, the more you have to go off of to direct yourself. However, we humans often collect a lot of information that we don't really like, and makes us feel bad- it seems that some of the information can even make us feel bad unconsciously.

- In the future they may have neuro-genesis, which would be the creation of brain cells.

- Perhaps in the future, someone will figure out how to prevent a baby's brain from “pruning” connections and brain cells, so that person will have more to work with in the future
- When a baby is young, it starts to prune brain cells and connections. If only a scientist could prevent a babies brain from pruning brain cells and axon fibers- then that baby would have more to blow in the future!

Back ground for drugs

- So that is a very small bit of back ground on the brain. Mind altering drugs may open the mind, and may even have therapeutic potential under the right supervision. But until we have more of a clue on just how bad drugs can warp this ultimate machine of such intensely complicated stuff going on, it would really just be better to wait, and not break this phenomenal machine that you have been given. It is like a super expensive super computer, that you don't want to smash- even when you want to smash it!
- Ps: always wear your geeking fr#\$^ing seat belt -- so you don't *accidentally* smash brain