



Manage your levels of alertness, focus, and motivation

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Hello,

In his book, "Your Brain at Work" (2009), David Rock talks about the search for the zone of peak performance. What he is referring to is having just the right amount of activity levels in the brain (specifically the prefrontal cortex where decision making and problem solving take place) to perform optimally. At too low activity levels you are not sufficiently alert or motivated to do very much other than lie in the sun and snooze (or lie in the dark and snooze for that matter). With too much activity you fall apart from pressure and stress as you experience overwhelm. To be focused, alert, and motivated, you need just the right amount of brain activity levels.

For messages to travel between neurons in the brain at the right level of activity depends on having just the right amount of two neurochemicals present - dopamine and norepinephrine (also called noradrenaline). Without enough of these two chemicals you experience boredom and under-arousal. Too much and you experience stress and over-arousal. For the brain to function optimally it must deliver just the right amount of these chemicals. Norepinephrine is known as the chemical of alertness, and dopamine as the chemical of interest.

If you suspect you have a deficiency, for instance you are never alert, focused or motivated, then don't diagnose yourself, see a medical professional. If, however, you think you are mostly a fairly normal person (whatever that is) and are just having a day when you need to feel more alert or motivated, focused or interested, you can shift your own chemical states through various mental and physical interventions.

So what can you do if you wake up and realise today you need some more alertness, focus, or motivation?

"The successful warrior is the average man, with laser-like focus." Bruce Lee

Mental Techniques

- Stressful events release norepinephrine. Creating a mental state of urgency, moderate fear, or excitement will raise your levels of norepinephrine and get you to feel and act more alert and focused. To create a state of urgency imagine or set a deadline to complete something. One way to do this is to write down a set of tasks you will have finished by the end of the day. Visualising something challenging will also increase your alertness, but don't let your imagination run away with you - you want to be alert, not scared out of your wits. If planning a holiday or adventure of some sort gets you to feel excited then do that to wake up your brain.
- When the brain detects something unexpected or new, dopamine (chemical of interest) levels rise. Even something as simple as re-arranging the layout of papers on your desk can increase your dopamine levels. Watching funny clips or hearing jokes increases dopamine levels, which is probably why so many people giving presentations do this. It stops the audience from falling asleep. So to raise your dopamine levels and get more interested in whatever you are doing, make some changes in your surroundings or tell jokes.

- Rewards also impact on dopamine levels. When a signal from the environment indicates that you are going to get a reward, dopamine is released in response. So if you hear that you will get a pay rise, or someone you adore returns your love, you will release more dopamine.
- The expectations you hold also influence dopamine. Expecting a positive event (something that will make you happy such as a dinner at your favourite restaurant) raises dopamine. The expectation of a negative event (something that will make you unhappy such as having your car repossessed) reduces dopamine. Unexpected rewards increase dopamine more than expected ones. If you are expecting a reward and do not get one, dopamine levels fall off steeply and this feels like pain. These unmet expectations and large drop in dopamine levels cause your body to respond as if it is under threat.
- Meeting goals increases your levels of neurochemicals in the brain, and so makes you feel more alert, focused, and motivated. This is true even if the goals seem to be small. Similarly, not meeting goals lowers your levels of both chemicals, and with that your alertness, interest, motivation, and focus. In fact, if you find you are not meeting goals, or failing many times in succession, your neurochemical levels keep dropping and you get into a downward spiral. If you find this is happening to you, that you are experiencing repeated losses or failures, then you need to engineer a success for yourself, in order to stop the downward spiral. Engineering a success could mean setting a small goal for yourself and achieving it. But you must then mentally acknowledge that goal achievement as a success. Then create another opportunity for you to succeed at a goal and so on, until you have created a succession of wins for yourself and established an upward spiral of mood and neurochemicals.

Physical techniques

- Exercise causes your body to stimulate production of norepinephrine. This is why if you exercise just before bed time you struggle to fall asleep; your brain is ready for you to do things that require you to be alert. Exercise before you need to be alert, and do exercise appropriate to your level of fitness. If you overdo what is usual for you, you will not feel alert, you will feel like collapsing.
- Tyrosine is the amino acid in our food that the nerve cells turn into norepinephrine and dopamine. Tyrosine is the precursor of dopamine, and dopamine is converted into norepinephrine. Dairy products - especially cheese, red meat, nuts, eggs, and fish are necessary precursors for norepinephrine and dopamine.
- Avocados and bananas are two fruits that are good food sources of tyrosine and hence help the body create norepinephrine and dopamine.

If you are feeling too alert and too motivated, which could happen if you are under huge stress, then understand you don't need to elevate your levels of these neurotransmitters - you need to do the opposite of what is suggested to lower them and feel better.

And note that this doesn't mean that if you want to be really alert and focused you live on avocados and cheese, and visualise stressful events each hour of the day for months on end. You will rapidly become unhealthy and neurotic if you do that. In the short term, however, when you find yourself feeling apathetic and bored, and you need to increase your alertness and motivation, know that there are some simple things you can do to change your state immediately.

"If you do not conquer self, you will be conquered by self." Napoleon Hill

Have a wonderful February,

Best wishes

Penny