

Using Relaxation to Rev Up and Rev Down

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Some people find writing a paper the night before it's due to be a very effective way of focusing and psyching themselves up to work. Some people find the stress of a competition or exam to be exhilarating, while others find it debilitating. Some people lie down to sleep and drop off instantly. Others find that they cannot shut down their brain. They keep thinking about different things, unable to relax and go to sleep. So what is going on here anyway?

The Story of Og

Once upon a time, around 25,000 years ago, there lived a caveman named "Og." A Cro-magnum man, Og probably spent his time hunting and trying not to be hunted. In the course of a busy day on the job, Og might have run into a sabre-toothed tiger. Upon recognizing the danger he was in, Og would have immediately started producing adrenaline. Because his body would need every bit of energy it could find in order to survive, blood would be routed away from non-essential functions such as digestion, and into his muscles. Heart rate and breathing would increase, so that he could take in more oxygen and pump it out to the muscles. In short, Og would instantly prepare to fight or run.

Fast forward 25,000 years to today. Og's great, great, great, etc, grandson, Jefferson Herringbone-Smythe IV, is sitting in an office. Jefferson is not likely to run into any sabre-tooth tigers in the course of his day. However, he might be told by the phone company that, "I'm sorry, sir, but our records show that you did call Outer Mongolia and speak for 16 hours. The charge is \$1270.23, and is overdue." Or his boss might come in, screaming that he needed that report ten minutes ago. Or he may be cut off in traffic while rushing to a meeting. Or his computer might crash just as he was about to hit the print button on that report.

In response to each of these situations, Jefferson's body would immediately start producing adrenaline. Heart rate and breathing would increase, blood would be routed away from non-essential functions such as digestion and into his muscles. In short, like Great Granddaddy Og, Jefferson is preparing to fight or run.

It may seem a bit odd that Jefferson's response to a perceived threat is essentially identical to Og's. This response is the product of millions of years of evolution. The 25,000 years between Og and Jefferson are a blink in evolutionary time. Give Og a shave, a haircut, and a good suit and he could be anyone, from janitor to CEO to president of the country. Although life has changed a great deal since Og's day, how our bodies respond to threats has not.

This reaction is known as the "Fight or flight" response, and it helps us survive sudden dangers. It puts the body into overdrive, shifting control from the parasympathetic nervous system to the sympathetic nervous system. Unfortunately, while Og gets to burn off his energy by running or bashing on the tiger, Jefferson does not get that option. Bashing in the head of one's boss is

typically frowned upon, as is running screaming from the office. As a result, Jefferson is unable to meet the threat in the traditional fashion, and his body continues to act as though he is in danger.

What Jefferson is experiencing is, of course, stress. While stress is not inherently bad, how long it lasts and how we respond to it can be. When the body is constantly on high alert, blood pressure and heart rate remain elevated, digestion is hampered, and healing and the immune system are suppressed. This isn't generally a concern if the stress lasts for a few minutes or hours, but it becomes problematic when it lasts for days at a time, or longer. In the latter case, Jefferson could end up experiencing anything from indigestion and distractibility to more serious problems such as reduced attentional capacity, high blood-pressure, and heart disease.

Arousal

There is no question that stress revs the body up to meet challenges. Increased physiological arousal increases energy and concentration. As mentioned earlier, many people have found that writing a paper at the last minute can produce excellent work. They may even become addicted to doing it that way.

Initially, as arousal increases, performance also increases, as energy goes up and the ability to pay attention improves. Indeed, for any task, there is an optimal level of arousal at which effectiveness at that task is maximized. However, too much stress can also cause arousal to overshoot, going past that optimal point. Once that happens, focus decreases, concentration slips, and distractibility increases. Performance will steadily degrade right up to the point where it abruptly collapses completely. If the person is unable to relax and recover, it can take a very long time before performance returns to pre-collapse levels.

Relaxation Response

So what does all this have to do with "using relaxation to rev down and rev up?" It turns out that, just as we have a fight/flight response, our bodies also have what Dr. Herbert Benson dubbed the *relaxation response*. The relaxation response is almost the exact opposite of the fight/flight response: blood pressure and respiration drop, muscles relax, and instead of preparing to fight or run, the body enters a restful state. Initially, the relaxation response was seen as a way to turn off the flight/fight response, reduce stress related illnesses, and promote healing. Subsequent research, by Dr. Benson and others, found that the relaxation response is key to a variety of other mental skills, and can be used not just to reduce arousal, but to increase it as well. With practice, the relaxation response can be used to modulate arousal with a much finer level of control than the flight/fight response on its own.

Invoking the relaxation response requires two basic components:

1. A mental device, such a sound, word, phrase, or prayer, or fixing your eyes on an object or spot. Deep breathing, in which you focus on each breath, is a common technique.
2. A passive attitude, in which you don't worry about how well you're doing and in which you gently dismiss distracting thoughts. It is important to simply acknowledge distractions as unimportant rather than investing energy in ignoring them or trying harder to relax.

With these two components, the relaxation response can be invoked. While sitting quietly in a chair is one of the easiest and most common ways of invoking the relaxation response, it can be invoked while standing, running, swimming, performing chi gong, etc. Of course, the more stress you are under, the harder it can be. Like any skill, regular practice is essential. It is also a good idea for beginners to find a quiet location and comfortable position when first learning to evoke the relaxation response. Minimizing distractions makes learning any new skill much easier.

In addition to the stress relief benefits, practicing relaxation technique has some other benefits as well. To begin with, you are practicing focus: learning to concentrate your mind on one thing, until that one thing completely fills your mind. By training yourself to focus on something that is not inherently interesting, you are developing your ability to focus on anything you may choose to.

You are also learning to determine saliency: are outside noises and events important or unimportant? With practice, the garbage truck picking up the trash shouldn't disturb you; a fire alarm should. You learn to discard irrelevant stimuli and only attend to those that directly matter to what you are doing.

Finally, you learn to obtain feedback and adjust your technique accordingly. As you enter a relaxation state, you will typically experience feelings of warmth spreading throughout your body. By learning to pay attention to those feelings, you can track how successful you are being and adjust your technique as necessary. Over time, you may notice other sensations as well, providing additional feedback. Thus, you gain better knowledge of your body and your own reactions, allowing you to more finely modulate your arousal.

Visualization

One of the benefits of practicing relaxation techniques while remaining motionless is that both body and mind become quiet. The mental and physical static is reduced or eliminated. This creates a very powerful foundation for practicing visualization. Although it is not entirely clear exactly why visualization works, it is clear that the body responds to your internal images just as it does to externally generated images. Relaxation plus visualization allows you even finer control over arousal because it enables you to imagine specific situations and scenarios: if you're a runner, rather than wonder how you'll respond if someone passes you, imagine the scenario and create the response you want to have. Rehearse it over and over until it feels natural. Need to write a paper? Imagine sitting down in front of your computer, pulling up your word processor, and writing. Imagine the different distractions that can occur and decide ahead of time which are important and which ones just slide by you. By imagining yourself working with appropriate focus and arousal, you help make that the reality when you actually sit down to work.

If you practice a sport or martial art, you can imagine yourself performing different techniques. You can rehearse individual moves or combinations, imagine assorted scenarios, and determine ahead of time how you'll respond. In short, you are learning to modulate your responses and arousal levels, instead of trying to figure it out on the fly.

Athletes who can invoke the relaxation response in a stressful, competitive situation are more likely to enter a state of extremely high performance called the Zone. Athletes in the Zone perform better and use less energy than athletes not in the Zone.

Flow

Another consequence of practicing relaxation technique is that it helps you develop the skill to increase your enjoyment of other activities. Mihaly Csikszentmihalyi describes *flow* as a state in which the activity you are performing completely fills your mind, where you have clear goals, and where you are constantly obtaining feedback as to how well you are doing. This is an incredibly enjoyable state; it is also a perfect description of practicing relaxation technique. If your relaxation technique enables you to enter a flow state, not only will you enjoy the experience more, but you'll be more likely to attain a flow state in other activities, further increasing your enjoyment of those activities as well.

Slow Time

Many people have experienced the sensation of time seeming to slow down in a crisis situation, such as a losing control of a car on an icy road. Athletes performing at a very high level have reported having the same experience. Some martial artists claim that it's possible to slow time. In each case, the same thing is happening. A consequence of flow is that all your concentration is focused completely on the task at hand. That means that no distractions enter your mind, and it means that all the processing power of your brain is focused on the activity. If you pretend that you're watching a movie, then you are, in essence, viewing many, many more frames per second than you would normally, creating the illusion of time slowing down.

All this from learning to relax!

A Simple Relaxation Technique

There are numerous ways of invoking the relaxation response. As mentioned earlier, the only two requirements are a mental device and a passive attitude. However, for the beginner, a quiet environment and sitting or lying motionless in a comfortable position will make it much easier to achieve. First learn the skill, then learn to do it in a distracting environment.

The following relaxation script is a simple, reliable method to train yourself to relax. It should be practiced while sitting comfortably in a quiet location. Each step should be practiced at least once, preferably twice, a day, 15-20 minutes each time. Optimal times are early morning and late afternoon. Perform each step for 3-4 days before moving to the next one. This script utilizes a technique known as autogenic control, and is discussed in greater detail in Charles Garfield's book, "Peak Performance."

As you do this exercise, breath in through your nose and out through your mouth. Fill your abdomen with air, and slowly release it. At any time in the process, if you notice that you are shifting away from abdominal breathing, gently shift back. Not everyone is used to abdominal breathing, and it can feel quite awkward at first.

After you finish the script associated with each step, spend the rest of the time just focusing on your breathing and sensations you are evoking. This script is designed to provide you with feedback as you progress; each step does not have to be perfect before you move on to the next.

Start: Imagine a fine cloth settling over your face. As it settles, the muscles of your face start to relax. Say to yourself, “I am putting on my relaxation mask. My face is smooth and relaxed.” Always start by putting on your relaxation mask before moving on.

Step 1: “My right leg is feeling limp, heavy, and warm.” Repeat three times.

“My right leg is feeling heavier and warmer.” Repeat three times.

“My right leg is completely heavy and warm.” Repeat three times.

As you repeat each phrase, imagine your leg immersed in warm water. If you don’t care for that image, pick something else that suggests warmth and comfort to you.

Step 2: “My left leg is feeling limp, heavy, and warm.” Repeat three times.

“My left leg is feeling heavier and warmer.” Repeat three times.

“My left leg is completely heavy and warm.” Repeat three times.

As you repeat each phrase, imagine your leg immersed in warm water.

Step 3: “My legs are feeling limp, heavy, and warm.” Repeat three times.

“My legs are feeling heavier and warmer.” Repeat three times.

“My legs are completely heavy and warm.” Repeat three times.

As you repeat each phrase, imagine your legs immersed in warm water.

Step 4: “My right arm is feeling limp, heavy, and warm.” Repeat three times.

“My right arm is feeling heavier and warmer.” Repeat three times.

“My right arm is completely heavy and warm.” Repeat three times.

As you repeat each phrase, imagine your arm immersed in warm water.

Step 5: “My left arm is feeling limp, heavy, and warm.” Repeat three times.

“My left arm is feeling heavier and warmer.” Repeat three times.

“My left arm is completely heavy and warm.” Repeat three times.

As you repeat each phrase, imagine your leg immersed in warm water.

Step 6: “My arms are feeling limp, heavy, and warm.” Repeat three times.

“My arms are feeling heavier and warmer.” Repeat three times.

“My arms are completely heavy and warm.” Repeat three times.

As you repeat each phrase, imagine your legs immersed in warm water.

Step 7: “My arms and legs are feeling limp, heavy, and warm.” Repeat three times.

“My arms and legs are feeling heavier and warmer.” Repeat three times.

“My arms and legs are completely heavy and warm.” Repeat three times.

As you repeat each phrase, imagine your arms and legs immersed in warm water.

Step 8: “My relaxation mask is on; my face is smooth and relaxed.”

“My arms and legs are feeling limp, heavy, and warm.” Repeat if needed.

“My arms and legs are feeling heavier and warmer.” Repeat if needed.
“My arms and legs are feeling completely heavy and warm.” Repeat if needed.
“My chest is feeling warm and pleasant.” Repeat if needed.
“My heartbeat is calm and steady.” Repeat if needed.
“I am supremely calm and relaxed.” Repeat if needed.

Step 9: “My relaxation mask is on; my face is smooth and relaxed.”

“My arms and legs are feeling limp, heavy, and warm.” Repeat if needed.
“My arms and legs are feeling heavier and warmer.” Repeat if needed.
“My arms and legs are feeling completely heavy and warm.” Repeat if needed.
“My chest is feeling warm and pleasant.” Repeat if needed.
“My heartbeat is calm and steady.” Repeat if needed.
“I am supremely calm and relaxed.” Repeat if needed.
“My stomach is soft and warm.” Repeat if needed.
“I am supremely calm and relaxed.” Repeat if needed.

Step 10: “My relaxation mask is on; my face is smooth and relaxed.”

“My arms and legs are feeling limp, heavy, and warm.” Repeat if needed.
“My arms and legs are feeling heavier and warmer.” Repeat if needed.
“My arms and legs are feeling completely heavy and warm.” Repeat if needed.
“My chest is feeling warm and pleasant.” Repeat if needed.
“My heartbeat is calm and steady.” Repeat if needed.
“I am supremely calm and relaxed.” Repeat if needed.
“My stomach is soft and warm.” Repeat if needed.
“I am supremely calm and relaxed.” Repeat if needed.
“My forehead is cool.” Repeat if needed.
“I am supremely calm and relaxed.”

And that's it! Don't worry if the sensations are not that strong at first. Once you reach step 10, you'll have your basic relaxation script down. If you practice regularly, you'll find that you need less repetition and that the relaxation response will trigger more rapidly each time. Eventually, you may find that you can shorten the script to a few trigger words combined with the mental image of relaxation spreading throughout your body, or just to deep breathing and a focus on your breaths. You are limited only by your imagination.

Invoking the relaxation response is a straight-forward process. The secret is regular practice. Stick with it, and you will find the benefits worth the time invested.

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