

# Why a holiday is good for you—even before you take time off

July 13 2023, by Juan Pérez Fernández and Roberto de la Torre Martínez



Credit: AI-generated image (disclaimer)

You have spent the past few days on a cloud over your forthcoming, well-deserved holidays, and will go back to daydreaming about them as soon as you finish this article. And the truth is that the benefits of a good holiday can be felt even before the trip begins. Scientific studies show that merely looking forward to a future reward can be even more



rewarding than the reward itself. This is so thanks to a small molecule called dopamine, which we will talk about later.

But, before we continue, let's think about a few questions. Are holidays really necessary? Why do we need them? And, above all, what are the benefits of a few idle days?

### Rest increases cognitive flexibility

Although this may seem unbelievable, there is very little scientific literature that explores the direct benefits of holidays on our brain. What does seem indisputable is that they are essential. This was concluded by a 2016 study in which 46 workers from a Dutch company participated.

The workers were asked to undergo a test in which they were given objects (for example, a hammer) and asked for the greatest number of uses for their objects in the shortest possible time (construction tool, weapon, paperweight, etc.). What the researchers observed is that, after two or three weeks of vacation, workers had greater cognitive flexibility. Or, to put it another way, they were able to think of a greater number of uses for the objects compared to the results obtained a couple of weeks before the holidays.

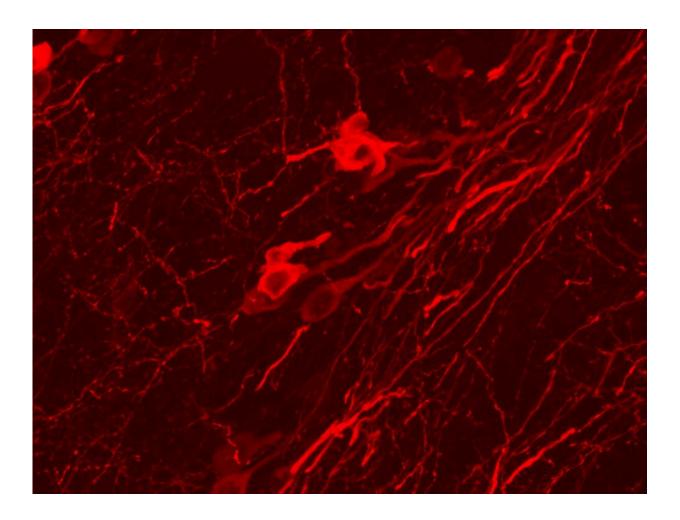
Most studies concur that, from a biological point of view, one of the main reasons for this increase in cognitive flexibility –and for the benefits of holidays in general– is <u>stress reduction</u>.

We will all agree that work generates <u>stress</u>. But we have to make a small distinction here: stress in and of itself does not have to be bad. When it is sporadic, <u>it is usually even beneficial</u> because it activates mechanisms that help us carry out the daily actions of our work, such as meeting a deadline (the authors of this article are working on that right now).



The "other stress"—the one that has negative connotations for everyone—is <u>chronic stress</u>. It occurs when it is prolonged over time, either because we are under constant pressure or due to situations that we cannot handle. It generates fatigue, higher levels of anxiety, irritability, and anger. And yes, it's definitely bad.

## Recipe for a holiday that recharges your batteries



Photomicrograph of neurons from the substantia nigra which release dopamine when faced with new situations and rewards, generating a pleasant feeling. Credit: Juan Pérez Fernández., Author provided



The main thing that a good vacation can do for our mental health is precisely to reduce chronic stress levels. When we are idle, our brain is able to reverse—at least temporarily—the negative effects of being under stress. And here comes the key: for holidays to be truly effective, we have to ensure that they really free us from the stress of our work. That is, we must avoid continuing with pending tasks, answering emails, etc.

On the other hand, it is essential to prevent our holidays from creating new stressful situations for us.

Another key is to enjoy the wait. Why is it that the mere act of waiting for our holidays makes us happy? We mentioned <u>dopamine</u> a few paragraphs ago, which is produced in the neurons of two <u>brain regions</u> known as the <u>substantia nigra</u> (because of its dark color under the microscope) and the <u>ventral tegmental area</u> (located in the center of our brain, more or less behind the ears).

Both regions, which are home to between 400,000 and 600,000 neurons in humans, send axons to numerous areas of the brain. Through the release of dopamine, they play a key role in the pleasant feelings brought on by new experiences and rewards. Therefore, knowing that our holidays are coming increases the dopamine levels in our brain and gives us that feeling of pleasure.

Similarly, the best holidays are those in which we enjoy new experiences (such as exploring <u>different places</u>) and rewards (like that seafood platter we have been waiting for all year). Of course, what one finds rewarding is entirely subjective, and what is pleasant for one person can cause stress for others.

#### To enjoy or not to enjoy



This system that generates pleasure is also affected during chronic stress. Science shows that high or chronic levels of stress, such as those we are subjected to throughout the year during our workday, are capable of causing a reduction in the amount of dopamine released and/or changes in how it is metabolized.

The worst thing is that the changes do not only occur in the <u>substantia</u> <u>nigra</u> or in the <u>ventral tegmental area</u>. <u>It has been found</u> that chronic stress is even capable of changing the number of dopamine receptors in the areas that receive these projections. When this occurs, depressive behaviors often develop. Therefore, a vacation that frees us from stress will help to rebalance the dopaminergic system.

What is still not entirely clear is whether taking holidays for a long period provides better effects than taking them in a staggered way and in shorter periods.

Be that as it may, good holidays are good for us. So, we encourage our readers to find activities that make them feel good, recharge their energy, and reduce their stress so as to reboot their dopaminergic system. Happy travels!

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