

We are programmed to be lazy

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It is often easier to give in to the impulse of sedentarity. Credit: Shutterstock

If you have to force yourself up off your couch to try to get in some physical activity, rest assured, you are not the only one in this situation. For decades, communication campaigns have encouraged us to exercise, yet an estimated 30% of adults aren't active enough. And this inaction is constantly increasing everywhere on the planet.

France is no exception to this rule. If "doing more [physical activity](#)" is classed in the top five good resolutions for the New Year, 75% French people are not sufficiently active. And yet according to the World Health Organisation, each year 3.2 million deaths can be attributed to this [lack of physical activity](#), that is one death every 10 seconds.

This observation raises the question: why are we incapable of being physically active even when we want to?

The conflict between reason and emotions

To understand this battle between our positive intentions and our contradictory impulses, scientific theories such as dual process models have been developed. In these models, the mechanisms that

explain our behavior are divided into two categories: the rational mechanisms, managed by the reflective system, and the emotional mechanisms, managed by the impulsive system. The latter organizes the automatic and instinctive part of our behaviors. It can facilitate or, on the contrary, prevent the reflective system from putting our intentions into place.

This second instance has been clearly illustrated in a study we have conducted. Its goal was to understand the conditions of efficacy of the messages promoting physical activity. In other words, we wanted to find out if reason can win out over our impulses when it comes to motivating ourselves to be more physically active.

First, participants had to attend a presentation outlining the recommendations in regards to physical activity that is beneficial to their health (30 minutes of daily exercise, spread out in sessions of 10 minutes minimum). To measure their impulsive tendency to approach sedentary behaviors, they were asked to perform an experimental task, the manikin game.

This game consists in moving around an avatar on a computer screen using a keyboard. In one of the conditions of the experiment, the participant has to move the avatar as fast as possible toward images representing physical activity (walking, biking, swimming...) and move it away from images representing a [sedentary activity](#) (television, hammocks, escalators...). In the other condition, it is the opposite; the avatar has to be moved toward images evoking sedentary activities and moved away from the exercise images. The faster the participant is to approach sedentary images versus moving away from them, the more their impulsive tendency toward a [sedentary lifestyle](#) is considered to be high.

In the face of prevention messages, we are not all equal

After this task, participants were given an

accelerometer destined to record their daily physical activity and were sent on their way home. A week later, the debriefing took place.

First, results revealed that participants who received the message promoting physical activity expressed an increased intention to exercise. Thus, well-formulated health messages prove to be effective in triggering an intention. However, having the intention of exercising does not mean that we will actually do it, and all participants did not succeed in converting their intentions into behaviors.

Only those with a low impulsive tendency to approach sedentary behaviors were successful. Conversely, participants with a high tendency were not able to transform their intention into action. In other words, the conscious intention of being active lost the battle against the automatic tendency to seek sedentary behaviors.

Why are these sedentary behaviors attractive when they are harmful to our health?

The principle of least effort: a cumbersome legacy of evolution

If this attraction toward sedentarity seems paradoxical today, it is logical when examined in the light of evolution. Indeed, when it was difficult to gain access to food, sedentary behaviors allowed for the saving of energy that was crucial for survival.

This tendency to minimize unnecessary effort could explain the current pandemic of physical inactivity since the genes allowing individuals to survive are more likely to be present in the next generation.

In a recent study, we aimed to assess if our automatic attraction toward sedentary behaviors is engraved in our brains. The participants in this study also had to play the manikin game, but this time, electrodes were measuring their brain activity.

The results of this experiment show that to get away from sedentary images, our brain has to deploy a greater amount of resources than to get away from physical activity images. In daily life,

getting away from the omnipresent opportunities to be sedentary in our modern environment (escalators, elevators, cars...) would therefore require us to beat this sedentary attraction that is ingrained in our brains.

Efficient, not lazy

Nevertheless, it should not be believed that we have solely evolved to minimize unnecessary effort; we have also evolved to be physically active. Nearly 2 million years ago, when our ancestors were adapting to a hunter-gatherer lifestyle, physical activity became an integral part of their daily life: they traveled on average 14 km per day.

Natural selection thus favors individuals that are able to amass a large quantity of physical activity in an energy-saving way. These individuals were the ones whose physical activity was associated with the secretion of pain relieving, anxiolytic, or even mood-enhancing hormones.

The good news is that these hormonal processes are always present within us and they are only waiting for one thing: to be solicited. The first step toward an [active lifestyle](#) is to become aware of this force that is driving us to minimize effort. This awareness allows us to resist the countless sedentary opportunities that surround us.

Moreover, much like our ancestors, the majority of us engage in a physical activity only when it is fun or necessary, so the best way to promote physical activity is to make it pleasant. It is therefore necessary to (re)structure our environment to favour it, especially during our daily trips.

Public policy should for example develop safe and well-maintained infrastructures and open public spaces, in order to favour access to places that are suitable for walking, biking and any other physical activity. New buildings' architecture should also encourage our physical activity during the day by prioritizing access to the stairs, or standing desks, etc.

It is then up to us to know how to take advantage of these opportunities to reduce our sedentarity... Come on, let's get on our trainers!

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