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The Sense of the Siesta *

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Many people in the United States smugly ridicule that afternoon "*siesta*" that is so common in Mexico. However, recently scientists indicated that the human body was meant to have an afternoon nap. What brought scientists to this opinion?

Scientific interest in naps happened accidentally. In studying the cycles of waking and sleeping throughout the day, a wide range of studies came to the same conclusion. There is a strong biological tendency for people to fall asleep in the middle of the afternoon — even if they have had a full night's sleep.

Some people believe that becoming drowsy in the middle of the afternoon is caused by eating a big lunch. However, this is not true. A dip in afternoon alertness and intellectual ability is found in people — whether or not they have eaten lunch.

In 1975, Dr. Roger Broughton of the University of Ottawa first proposed that naps were a natural part of the sleep cycle. This seemed radical to those who saw naps as indicating laziness or being an artifact of some societies. Either way, naps seemed to be irrelevant for scientific study of sleep.

After a period of ignoring napping, scientists started to study it in 1986. In a series of studies, volunteers were put for weeks in an underground room. They were completely isolated from all indicators of time. The volunteers were told to sleep whenever they wanted.

Without any reference to external time measures, volunteers tended to sleep in two time periods — one long session at night and another shorter one (1-2 hours) in the afternoon. Because the body's daily rhythm in a time-free environment is about 25 hours, the actual time of the naps changed systematically as the days progressed. However, the naps typically happened 12 hours after the middle of the longer period of sleep.

Another source of evidence is the napping behavior of children. Beginning with frequently napping all through the day, the last nap to be given up by children is the one in the middle of the afternoon.

The siesta seems to be a cultural endorsement for a biological need.

In countries where the siesta is a custom, it is *always* in the middle of the afternoon. Even in the United States, those who take naps usually do so in the mid-afternoon. Additionally, there is repeated evidence that performance drops in the mid-afternoon — and accidents resulting from sleepiness increase at this time.

Recently, Dr. Peretz Lavie, a sleep researcher in Israel, kept volunteers on a 20-minute sleep cycle — sleeping for 7 minutes and awake for 13 minutes. He wanted to find out how easily they fell asleep at various times of the day. Besides falling asleep easily at night, Lavie's subjects found it easier to sleep in the mid-afternoon. During periods of alertness in the morning and early evening, people found it harder to go to sleep — even when deprived of sleep the previous night. But the volunteers still fell asleep easily at their typical bedtime and mid-afternoon.

Since the need for naps is weaker than the need for sleep at night, naps can be relatively easily skipped. However, skipping naps does lead to increased drowsiness. Many cultures, particularly tropical ones, have developed the afternoon siesta. However, with the advent of industrialization and afternoon work hours, the siesta has waned around the world.

Even so, naps are still alive and well in the United States. Surveying over 10,000 subjects in the United States, researchers found that people of all ages averaged 1-2 naps a week. About 25% never napped, while 33% napped 4 or more times a week. Typically these naps ranged from a half-hour to an hour and a half.

For those who have too little sleep the previous night, naps increase their ability to pay attention. Those with enough sleep find the main benefit of naps to be mood improvement rather than improved thinking ability. As one researcher says —

> *"If you don't get enough sleep the night before, an afternoon nap will improve your alertness and give you a feeling of more energy, so you can take on more tasks. After napping, people not only feel better, but do significantly better on tests of mental performance."*

Medical interns and others — who must stay awake for a day or more at a time — need to take a nap at night and in the afternoon. (Of course, someone needs to cover their duties at those times.) In New York State, they recently cut interns' hours back from 100 to 80 hours a week. In the words of one researcher, "*It's not going to help much if they have to stay awake for a day or more at a stretch. It would make more sense to give them regular naps instead.*" Rather than being a function of any culture, naps seem to be an inborn human need. (Now you don't need to feel guilty about your afternoon snooze.)

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* Adapted from Daniel Goleman's article, "Feeling Sleepy? An Urge to Nap Is Built In," *The New York Times*, September 12, 1989. Reprinted in Stephen Worchel and Wayne Shebilske's *Psychology: Principles and Applications*, Prentice Hall Publishers, 1992, pages 188-189.