

Unit 3 Harmonize

You're Just Hangry!

"You're not You when you are hungry."

Jenny was up late last night finishing an assignment after her part-time job. She had to skip breakfast this morning in a rush to catch the bus for school. By doing so, she made matters worse because she has to sit through and focus on her difficult science class. As the class drags on, her hunger builds, and she starts tapping her pencil on her desk and shooting angry glances at the clock. Her classmates start noticing her mood, and some are even laughing at her stomach noises. Embarrassed and angry, she snaps at her friends. Have you ever felt like Jenny?

A New English Word

After eating a delicious meal, we feel full, happy, and relaxed. That doesn't occur when we are hungry; hunger causes discomfort and weakness and often sparks negative emotions. "You're not you when you're hungry," was a famous candy bar commercial slogan a few years ago. What this slogan means is hunger can seriously change your mood and performance. The phenomenon of getting annoyed and irritated due to hunger is so common that the word "hangry," a combination of hungry and angry, has become an official English word in many international dictionaries. So how does it work?

Hunger and Psychology

The word hangry caught the attention of psychologists, so researchers conducted a series of experiments with over two hundred U.S. college students. Participants were asked to either skip eating or eat a big meal right before the experiment. Their performance and behavior at varying levels of difficulty in tasks involving selective attention, mental rotation, writing, and frustration management were recorded and analyzed. The results showed that participants who skipped eating had poorer performance than those who ate beforehand. For example, they made more errors on the Stroop task, in which the participants were shown a color name printed in a different colored ink, and they were asked to say either the word or the color of the ink. Consequently, psychological studies seem to support that an empty stomach contributes to lower attention span and self-control.

Hunger and Hormones

Psychology is not the only field of science concerned with the relation between hunger and anger; physiologists know that hunger leads to changes in body reactions, too. When we eat bread, rice, or fruit, our digestive system breaks these foods down into glucose, the main fuel source for the cells in our body. It circulates in the blood and gets absorbed by cells for the energy required for their proper performance. But glucose levels fall when we are hungry, preventing cells from performing what they are supposed to do, an obvious threat to the proper functioning of the body. The human body responds to this threat by releasing cortisol, a hormone that helps our body cope with stressful situations. Elevated cortisol levels lead to an increase in heart rate and blood pressure along with many psychological effects including anxiety, irritation, and depression. These physiological reactions seem to be in line with psychological studies.

Hunger and the Brain

What is also affected by an empty stomach is the brain. Neurologists have found that high levels of cortisol cause the serotonin level in the brain to drop. Serotonin is a neurotransmitter that helps communication among neurons in different parts of the brain. Neurotransmitters play a crucial role in maintaining emotional balance and an overall sense of well-being. When serotonin levels are not balanced, normal functioning of mood regulation is disrupted, which can lead to feelings of sadness, increased irritability, and higher levels of anxiety. Neurologists have also come across interesting findings related to hunger and mental state by using brain imaging techniques to take pictures of brain activity. These images clearly show that, when people are hungry, areas related to threat and negative emotions increase in activity, while the activity patterns in areas responsible for higher cognitive skills like self-control and decision-making are greatly altered. Psychology, physiology, and neurology seem to agree that "You're not you when you're hungry."

You Are in Control

Does this mean that everyone who is hungry gets irritated about something? No. Individuals vary in their genes and personality as well as in their lifestyle and experiences, so their physiological or neurological reactions to hunger can vary as well. In fact, scientists have observed that the behavior of many animals is closely linked to the availability of nourishment, too. For example, fruit flies get more aggressive when deprived of food, and schooling fish exhibit reduced group unity when hungry. Regardless, there is another interesting finding from the research of psychologists on hunger: People seem to be able to control their negative emotions, but only if they are able to recognize them. If you happen to find yourself angry, take a few deep breaths and ask yourself if you skipped lunch. What might be happening is you're just hangry.

Loneliness and Hunger

While being hangry refers to the emotional feelings of anger caused by the physical needs of the body, a phenomenon called "lonely hunger" works the other way around, namely from the feelings of loneliness to the need for physical nourishment. That is, some people feel hungry when they feel lonely and isolated from others, often looking for a comfort in excessive "emotional eating." Emotional eating may be a good way to relieve negative emotions in the short term, but it is not necessarily a good long-term solution due to health risks.

Interestingly, the human brain's response to loneliness is similar to its response to hunger, as brain imaging studies have shown that the same area in the brain is turned on when a person has these feelings. Studies also support the notion that loneliness serves as a signal similar to hunger, indicating a lack that needs to be addressed. Just as a lack of physical nourishment leads to psychological discomfort, a lack of social nourishment results in feelings of social hunger, a deficit that needs to be addressed.