

Sensation versus Perception

Learning Objectives

By the end of this section, you will be able to:

- Distinguish between sensation and perception
- Describe the concepts of absolute threshold and difference threshold
- Discuss the roles attention, motivation, and sensory adaptation play in perception

Introduction

Paying attention, being interested in something, and getting used to certain sensations are all



important for understanding the world around us. When we focus on something, we pay attention to it and understand it. If we want to see something, that can change how we see it. Also, our bodies get used to things over time, so we notice them less. For example, if we put our hand on a table, we feel it at first, but then that

feeling fades as we get used to it. This helps us pay attention to more important things.

Key Concepts

Sensation is input about the physical world. These sensations are received through our sensory receptors. Then a process we call perception is when the brain selects, organizes, and interprets the varied sensations.

Understanding the crucial role of sensory adaptation in the brain's information processing is key. Sensory adaptation is the process by which the brain filters out constant and unchanging impulses, allowing us to focus on more significant changes in our environment.

In psychophysics, the concept of sensory threshold is crucial in understanding how our senses operate. It's the weakest stimulus that an organism can detect. Typically, it's defined as the lowest stimulus that can be detected half the time, as indicated by a point on a probability curve.

Attention, motivation, and sensory adaptation all play different roles in perception, which is the process of organizing, interpreting, and experiencing sensory information:

Attention

Also known as selective attention, this process involves focusing on one stimulus while ignoring others. When someone focuses on a stimulus, they sense and perceive it. Still, stimuli outside their attention span are only sensed and not processed.

Motivation

Motivation plays an important role in how we perceive things, especially when we strongly desire to see something. Even small rewards can alter our perception of objects. Motivation can also influence our ability to distinguish between sensory stimuli and background noise.

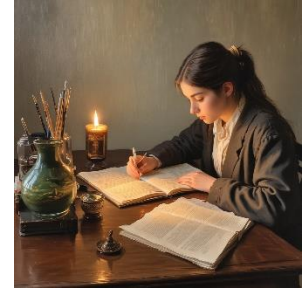
Sensory adaptation

Sensory adaptation, also known as neural adaptation, is a remarkable process that allows our sensory systems to become less responsive to a constant stimulus over time. For instance, when you rest your hand on a table, you immediately feel the surface, but the sensation gradually fades. This fading sensation is the work of sensory adaptation, enabling us to concentrate on more significant environmental changes.

Real-life examples

Sensory Adaptation

A high school student might identify with the experience of entering a room with a strong scent, such as a scented candle or air freshener. The smell may be very noticeable when they first walk into the room. Still, they get used to it after a while, and the scent becomes less intense or even unnoticeable.



Becoming less sensitive to the constant smell over time demonstrates sensory adaptation.

Attention

A student might be studying homework while there is background noise, like music or people talking. When deeply focused on their work, they may not notice the noise as much. Still, if something unusual or important happens in the background, they might suddenly become aware of it. This shows how attention affects what we perceive. When we focus on one thing, we may not fully notice other things happening around us.

Motivation

A similar real-life example of motivation influencing a high school student's perception of their world is when they are excited about attending a school event or a sports game. Their excitement and anticipation can make them more alert and focused on the event's details, such as noticing the crowd's energy, the players' skills, or the venue's atmosphere. This heightened perception is influenced by their strong motivation and desire to experience and enjoy the event fully.

Summary

Sensation is how our bodies receive information about the world, while perception is how our brains understand and interpret that information. Our brains can filter out constant sensations through sensory adaptation, allowing us to focus on important changes in our environment.

Factors like attention and motivation play roles in how we perceive things, like focusing on one thing while ignoring others, or being more alert and focused when we're excited about something. For example, when a student is studying with background noise, they might not notice it as much until something important happens.

Sensory adaptation is when we get used to constant sensations over time, like a strong scent in a room becoming less noticeable after a while. Attention helps us focus on specific stimuli, while motivation can make us more alert and focused on things we're excited about, like a school event or a sports game. These factors all affect how we perceive and understand the world around us.

Credits

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References

Mulin, G. (2022). Introduction to Psychology. (B. H. College, Ed.) Retrieved 2024, from Achieving the Dream: <https://library.achievingthedream.org/bhccintropsych/>

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