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# What Attention Means in Psychology

Focus is selective and limited

By [Kendra Cherry, MEd](#) | Updated on October 31, 2024

✓ Reviewed by [David Susman, PhD](#)



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We've all had those moments when it's hard to focus. You sit down to work on one project, only to get distracted by your full email inbox. Or you're just trying to get through the day but struggle with [brain fog](#) that makes it hard to focus. When our attention is impaired, it makes it really hard to function and get things done. Getting to the bottom of why it happens requires understanding a bit more about exactly *\*how\** attention works.

Attention is the ability to actively process specific information in the environment while tuning out other details. It's like a highlighter or spotlight and makes what we focus on stand out. However, attention is limited in terms of both capacity and duration. In other words, we can only focus on so much for so long. That's why it's important to have ways to effectively manage our attentional resources to make sense of the world.

Attention lets us focus on what's relevant and tune out what's not. We use attention to learn more about our environment, form memories, and perform tasks. However, not all types of attention are the same:

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Sustained attention allows us to focus for long periods while alternating attention allows us to switch between tasks.

Selective attention allows us to choose what we want to attend to

Focused attention helps us notice stimuli that require an immediate response.


While attention is limited and imperfect, there are things you can do to improve it, such as getting enough rest, avoiding multitasking, and practicing mindfulness.

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## Understanding Attention

In his 1890 book “The Principles of Psychology,” psychologist and philosopher [William James](#) wrote that attention "is the taking possession by the mind, in clear and vivid form, of one out of what may seem several simultaneously possible objects or trains of thought...It implies withdrawal from some things in order to deal effectively with others." <sup>[1]</sup>

**Think of attention as a highlighter. As you read through a section of text in a book, the highlighted section stands out, causing you to focus your interest in that area.**



It's not just about centering your focus on one particular thing; it also involves ignoring a great deal of competing information and stimuli. Attention allows you to "tune out" information, sensations, and

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Not only does our attentional system allow us to focus on something specific in our environment while tuning out irrelevant details, but it also affects our perception of the stimuli surrounding us.

## **The Role of Attention in Learning and Thinking**

Attention is a basic component of our biology, present even at birth.<sup>[2]</sup> Our orienting reflexes help us determine which events in our environment need to be attended to, a process that aids in our ability to survive.

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Newborns attend to environmental stimuli such as loud noises. A touch against the cheek triggers the rooting reflex, causing the infant to turn their head to nurse and receive nourishment. <sup>[3]</sup> These orienting reflexes continue to benefit us throughout life.

Attention plays a critical role in almost every area of life, including school, work, and relationships. It allows people to focus on information to create memories. <sup>[4]</sup> It also allows people to avoid distractions so that they can focus on and complete specific tasks.

Considering how important attention is, it's no wonder there's been such a great deal of interest and research looking at exactly how many things we can attend to and for how long. Key variables that impact our ability to stay on task include how interested we are in the stimulus and how many distractions there are. <sup>[5]</sup>

## Types of Attention

Attention isn't a one-size-fits-all ability. There are actually many different types of attention that people may use. Some of these include:

### Sustained Attention

This form of attention, also known as concentration, is the ability to focus on one thing for a continuous period. During this time, people keep their focus on the task at hand and continue to engage in a behavior until the task is complete or a certain period of time has elapsed.



Research suggests that sustained attention peaks during the early 40s and then gradually declines as people age. <sup>[6]</sup>

### Alternating Attention


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<sup>[7]</sup> It's not about focusing on more than one thing at the same time, but about stopping attending to one thing and then switching to the next task.

## Selective Attention

Since attention is a limited resource, we have to be selective about what we focus on. We must not only focus on a specific item in our environment but also filter out an enormous number of other items. Noise from the street outside, anxiety about an upcoming doctor's appointment, and pangs of hunger before lunch are just a few examples of distractions that can interfere with attention.

[Selective attention](#) involves being able to choose and selectively attend to certain stimuli in the environment while at the same time tuning other things out. <sup>[8]</sup> For example, you might selectively attend to a book you are reading while tuning out the sound of your next-door neighbor's car alarm going off.



Selective attention requires you to be able to tune out extraneous external stimuli and internal distractions, such as thoughts and emotions, to stay selectively attuned to a task.

## Focused Attention

This type of attention involves being able to be suddenly drawn to a specific visual, auditory, or tactile stimuli such as a loud noise or a flash of light. It is a way of responding rapidly to external stimuli, which can be particularly important in situations where something in the environment requires immediate attention and quick action.

## Limited Attention

Limited attention, or divided attention, is a form of attention that also involves multitasking. In this case, however, attention is divided between multiple tasks. Rather than shifting focus, people attend to these stimuli at the same time and may respond simultaneously to multiple demands.

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idea. Research published in 2018 has pointed out that multitasking seldom works well because our attention is, in reality, limited.<sup>[9]</sup> In other words, we are really \*bad\* at focusing on more than one thing at the same time.

## What Can You Do to Improve Attention?

For the most part, our ability to focus our attention on one thing while blocking out competing distractors seems [automatic](#). We do it without really even thinking about it. Yet the ability of people to selectively focus their attention on a specific subject while dismissing others is very complex.

For people with attention deficit hyperactivity disorder (ADHD), focusing attention is often more challenging. ADHD characteristics like inattention, hyperactivity, and impulsivity can affect a person's ability to concentrate and tune out irrelevant information.<sup>[10]</sup>

However, even people without attention problems can benefit from using strategies designed to improve attention and focus. Some things you can try include:

**Avoiding multitasking:** If you want to improve your focus, try to avoid multitasking. Juggling multiple tasks hurts productivity, so you can make the most of your limited attentional resources by only working on one thing at a time.

**Getting enough sleep:** Research has shown that [sufficient sleep](#) is essential for maintaining optimal levels of attention. Not only that, the two appear to have a bidirectional relationship; sleep helps regulate attention, but attentional demands can also play a role in sleep.<sup>[11]</sup>

**Practicing mindfulness:** [Mindfulness](#), which involves paying attention to the present moment, is sometimes conceived of as a form of attention. Research has shown that mindfulness training may be helpful for improving attention.<sup>[12]</sup>



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For example, research published in 2017 says that neural circuitry (pathways in the brain) related to attention are intricately related to conditions such as attention-deficit/hyperactivity disorder ([ADHD](#)). Achieving a greater understanding of this process holds promise for better treatments for people coping with attention problems caused by ADHD. <sup>[13]</sup>

## Takeaways

Attention is pivotal to who we are and how we function. It allows us to take in information about the world around us, learn new things, perform tasks, and create new memories. But it isn't perfect. Distractions can interfere with our ability to concentrate, and some people, such as those with ADHD, may have a more difficult time paying attention. You can improve your attention through mindfulness or limiting your multitasking, but talk to your doctor if you are concerned about your ability to focus.

**Related:** [Attention-Deficit/Hyperactivity Disorder](#)

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