



# ATTENTION AND HOW TO IMPROVE ATTENTION

[Document subtitle]

## ABSTRACT

People who pay attention to details have a better memory than others. If you start paying attention more often in your life, you will soon notice that you remember a lot more details than usual.

Zaib Samraz Pirzada

Introduction to psychology

# **Attention & how to improve attention.**

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## **Let's gain some insight about attention!**

Attention is a concept studied in cognitive psychology that refers to how we actively process specific information in our environment. As you are reading this, there are numerous sights, sounds, and sensations going on around you—the pressure of your feet against the floor, the sight of the street out of a nearby window, the soft warmth of your shirt, the memory of a conversation you had earlier with a friend. All of these sights, sounds, and sensations vie for our attention, but it turns out that our attentional resources are not limitless. How do we manage to experience all of these sensations and still focus on just one element of our environment? How do we effectively manage the resources we have available in order to make sense of the world around us? Answer is attention.

## **Understanding Attention**

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. But attention is not just about centering your focus on one particular thing; it also involves ignoring a great deal of competing for information and stimuli. Attention allows you to "tune out" information, sensations, and perceptions that are not relevant at the moment and instead focus your energy on the information that's important.

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. In some cases, our attention might be focused on a particular thing, causing us to ignore other things. In some instances, focusing our attention on a primary target might result in not perceiving the second target at all.

In other words, by focusing our attention on something in the environment, we sometimes miss other things that are right in front of us. You can probably immediately think of a situation where you were so focused on a task that you neglected to notice someone walking in the room or talking

to you. Since your attentional resources were so focused on one thing, you neglected something else.

## Key Points About Attention

In order to understand how attention works and how it affects your perception and experience of the world, it's essential to remember a few important points about how attention works, including:

**Attention is limited:** There has been a tremendous amount of 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 distractors we experience and attention is limited in terms of both capacity and duration. The illusion that attention is limitless has led many people to practice multitasking. Research published in 2018 has pointed out how multitasking seldom works well because our attention is, in reality, limited.<sup>2</sup>

**Attention is selective:** Since attention is a limited resource, we have to be selective about what we decide to focus on. Not only must we focus our attention on a specific item in our environment, but we must also filter out an enormous number of other items. We must be selective in what we attend to, a process that often occurs so quickly that we don't even notice that we have ignored certain stimuli in favor of others.

**Attention is a basic part of the cognitive system:** Attention is a basic component of our biology, present even at birth. 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. Newborns attend to environmental stimuli such as loud noises. A touch against the cheek triggers the rooting reflex, causing the infant to turn his or her head to nurse and receive nourishment. These orienting reflexes continue to benefit us throughout life. The honk of a horn might alert us about an oncoming car. The blaring noise of a smoke alarm might warn you that the casserole you put in the oven is burning. All of these stimuli grab our attention and inspire us to respond to our environment.

## Types of Attention

### Selective attention

Have you ever been at a loud concert or a busy restaurant, and you are trying to listen to the person you are with? While it can be hard to hear every word, you can usually pick up most of the conversation if you're trying hard enough. This is because you are choosing to focus on this one person's voice, as opposed to say, the people speaking around you. **Selective attention** takes place when we block out certain features of our environment and focus on one particular feature, like the conversation you are having with your friend.

### Divided attention

Do you ever do two things at once? If you're like most people, you do that a lot. Maybe you talk to a friend on the phone while you're straightening up the house. Nowadays, there are people

everywhere texting on their phones while they're spending time with someone. When we are paying attention to two things at once, we are using **divided attention**.

Some instances of divided attention are easier to manage than others. For example, straightening up the home while talking on the phone may not be hard if there's not much of a mess to focus on. Texting while you are trying to talk to someone in front of you, however, is much more difficult. Both age and the degree to which you are accustomed to dividing your attention make a difference in how adept at it you are.

### **Sustained attention**

Are you someone who can work at one task for a long time? If you are, you are good at using **sustained attention**. This happens when we can concentrate on a task, event, or feature in our environment for a prolonged period of time. Think about people you have watched who spend a lot of time working on a project, like painting or even listening intently to another share their story.

Sustained attention is also commonly referred to as one's attention span. It takes place when we can continually focus on one thing happening, rather than losing focus and having to keep bringing it back. People can get better at sustained attention as they practice it.

### **Executive attention**

Do you feel able to focus intently enough to create goals and monitor your progress? If you are inclined to do these things, you are displaying executive attention. **Executive attention** is particularly good at blocking out unimportant features of the environment and attending to what really matters. It is the attention we use when we are making steps toward a particular end.

For example, maybe you need to finish a research project by the end of the day. You might start by making a plan, or you might jump into it and attack different parts of it as they come. You keep track of what you've done, what more you have to do, and how you are progressing. You are focusing on these things in order to reach the goal of a finished research paper. That is using your executive attention.

## **What are the determining factors of attention?**

There are determining factors that can affect the functioning of attention and can define which stimulus you will direct your attention to. These can be external or internal:

**External factors (external determiners)**: come from surroundings and make concentration on relevant stimuli easier or more difficult. Some examples are:

- **Intensity**: the more intense a stimulus is (strength of stimulus) the more likely you are to give attention resources to it.
- **Size**: the bigger a stimulus is the more attention resources it captures.
- **Movement**: moving stimuli capture more attention than ones that remain static.

- **Novelty:** newer or strange stimuli attract more of our attention.
- **Change:** if a different stimulus appears that breaks the dynamic, our attention will be directed to the new stimulus.
- **Colour:** colourful stimuli are more attention grabbing than black and white ones.
- **Contrast:** stimuli that contrast against a group attract more of our attention.
- **Emotional burden:** positive just as much as negative stimuli attract our attention more than neutral ones.

**Internal factors (internal determiners):** come from the individual and therefore, depend on each person. Some examples are:

- **Interests:** we concentrate more on stimuli that interests us.
- **Emotion:** stimuli that provoke stronger emotions attract more attention. However, it must be kept in mind that positive moods contribute to focusing attention resources, but negative moods make concentration more difficult.
- **Effort required by the task:** people make a prior evaluation of the effort required to do a task and depending on this, it will attract more or less attention.
- **Organic state:** depends on the physical state that the person is in. So, states of tiredness, discomfort, fever, etc. will make mobilizing attention more difficult. If, on the other hand, a person is in a state relating to survival, for example, thirst or hunger, stimuli related with the satiation of these needs will attract more attention resources.
- **Trains of thought:** when thoughts follow a determined course, based on concrete ideas, the appearance of stimuli related to these will capture more of our attention.

## **Attention span**

**Attention span** is the amount of time spent concentrating on a task before becoming distracted. Distractibility occurs when attention is uncontrollably diverted to another activity or sensation. Most educators and psychologists agree that the ability to focus and sustain attention is crucial for a person to achieve their goals. Attention training is said to be part of education, particularly in the way students are trained to remain focused on a topic of observation or discussion for extended periods, developing listening and analytical skills in the process.

## **4 Major Conditions of Attention**

Four major conditions of attention which refer to the duration and degree of attention are as follows: 1. Fluctuation of Attention 2. Distraction of Attention 3. Division of Attention 4. Span of Attention/Apprehension.

There are four conditions of attention which refer to the duration and degree of attention.

### **1. Fluctuation of Attention:**

It appears for us that our attention can be concentrated on a particular act for more time. But careful observation clearly shows that we cannot concentrate on a single act or stimulus for more than few seconds.

When we are seeing an object or listening to a sound, after few seconds, the attention will be shifted towards other stimulus or other area of the stimulus for a fraction of time and returns to the original stimulus.

This process is called fluctuation. Here we will be unable to notice this short shift. This phenomenon can be demonstrated experimentally. In Figure 3.1 on constant observation the figure of the book appears for some time as partially closed and partially open for some time. Similarly, in the figure of a woman, constant attention leads to perception of the faces of old woman and young lady alternately. Such a temporary shift in attention is called fluctuation of attention.

### **2. Distraction of Attention:**

When our attention is concentrated on a particular act or stimulus, some other more powerful stimulus may draw our attention and holds it to remain there for more time.

It may or may not return to the earlier stimulus. For example, while reading a book, our concentration will be on the book. Meanwhile if we listen to an attractive music sound, our attention may be shifted towards that under such circumstances, physically we may be reading the book, but we may not follow the contents. Students are much affected by distraction. Hence, they should learn to have concentration of mind on studies.

### **3. Division of Attention:**

Attending to more than one act at a time is known as division of attention. In such situations, we will divide our attention towards more than one act. For example, a tailor will be stitching the cloths and also speaking to his customers.

A nurse will be observing the pulse of a patient and also changes on his face. We ride a scooter while speaking to our friends. In such activities the attention is not divided, but it is possible to perform more than one act because, either our attention is shifted from one act to another rapidly, or our attention is concentrated on only one act and the remaining activities are carried on automatically.

Such activities do not need our attention, because these are almost mechanical. But in some technical jobs, attention has to be divided to perform more than one act at a time. However, under such circumstances, the quality and quantity of the task is affected. This can be proved experimentally by using a “Division of attention board”.

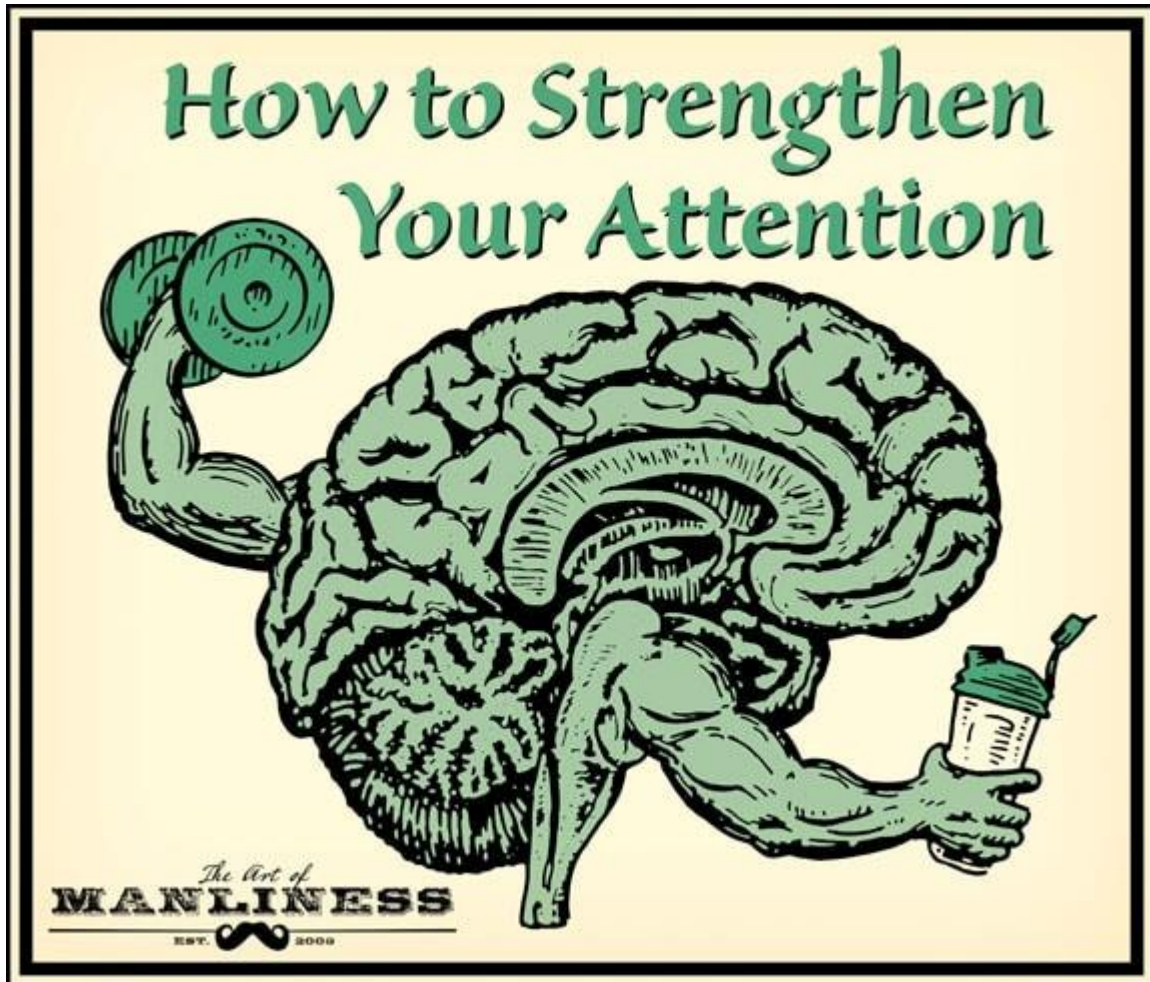
#### **4. Span of Attention/Apprehension:**

Span refers to the number of letters or digits or sounds that an individual can grasp within a given period of time. Using an instrument called ‘Tachistoscope’, it is experimentally proved that an individual can grasp 4-5 digits or letters easily within a fraction of time.

It is also proved that span will be more for meaningful material like words, than digits or nonsense syllables. It may be observed that digits on number plates of automobile vehicles are restricted to 4 only.

## How to improve attention

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How you pay attention will either help or hurt you on a day-to-day basis. This is because attention plays a critical role in what you think, feel, remember, and how you act. It affects your motivation and ability to hit your goals and in particular, goals that are meaningful to you. Attention affects the accuracy of your decisions and how they snowball into purposeful living. It will clarify who you are and the person you want to be and help you build the scaffold to get there. And all of this grows into your life's story. Good attention is controlled attention guided by good choices.

### Start by Assessing Your Mental Focus

Before you start working toward improving your mental focus, you might want to begin by assessing just how strong your mental focus is at the present moment.

**Your Focus Is Good If...**

- You find it easy to stay alert
- You set goals and break tasks up into smaller parts
- You take short breaks, then get back to work

#### **Your Focus Needs Work If...**

- You daydream regularly
- You can't tune out distractions
- You lose track of your progress

### **EXERCISE**

Exercise doesn't just improve your physical fitness; it increases your focus, and a short brisk walk will do. A study from the University of Illinois found that physical activity increases cognitive control. According to a research all Students with attention problems who participated in 20 minutes of moderate exercise were able to pay attention longer and scored better on academic achievement tests, especially in the area of reading comprehension.

### **STAY HYDRATED**

Being dehydrated isn't just bad for your body; it's bad for your attention span. A study done at the University of Barcelona, found that mild dehydration—as little as 2%—can negatively impact your ability to concentrate. In fact, a 2% drop in dehydration isn't enough to trigger thirst. So before you go into a situation where you need to focus, make sure you bring along plenty of water.

### **ASK QUESTIONS**

Asking questions not only keeps you engaged; it allows you to contribute to the conversation and learn something new: “Good questions give you information that helps you improve your job performance,” says Acuff. “Bad questions are those where you already know the answer or just want to look smart.”

### **DRINK TEA**

Coffee might make you alert, but tea can help you pay attention. Black tea contains an amino acid called L-theanine, which has been shown to directly affect areas of the brain that control attention. In a study done in the Netherlands, tea drinkers were able to pay attention and perform tasks better than those who were given a placebo to drink.

### **TAKE NOTES BY HAND (key points)**

If you're trying to pay attention in a meeting or at a conference, leave your laptop at home and take notes via pen and paper. Researchers at Princeton and UCLA found that when students took notes by hand, they listened more actively and were able to identify important concepts. Laptops also provide an easy distraction, such as checking email or logging on to social media. Taking notes on a laptop also leads to mindless transcription.

## **Stop Multitasking**

Juggling multiple activities not only divides your attention among the tasks — *but you also pay a cognitive “penalty” on top of that to manage the switching.*

This results in more errors and makes things take longer than they would have if you had done them each separately.

## **Eliminate Distractions**

Admit it, you saw this one coming. While it may sound obvious, people often underestimate just how many distractions prevent them from concentrating on the task at hand. Such intrusions might come in the form of a radio blaring in the background or perhaps an obnoxious co-worker who constantly drops by your cubicle to chat.

Minimizing these sources of distraction often sounds easier than it really is. While it might be as simple as turning off the television or radio, you might find it much more challenging to deal with an interrupting co-worker, spouse, child, or roommate.

One way to deal with this is to set aside a specific time and place and request to be left alone for a period of time. Another alternative is to seek out a calm location where you know you will be able to work undisturbed. The library, a private room in your house, or even a quiet coffee shop might all be good spots to try.

## **Value attentiveness**

Realize that you create your personal reality by what you pay attention to. All of us get much less out of life than we could, because we are not paying attention.

## **Live in the now**

An expert on this philosophy, Eckhart Tolle, says, "The clock's hands move, but it is always now." Grab the present intensely. You cannot know the future and you cannot re-do the past. You can correct for past weaknesses and mistakes and reduce their likelihood in the future, but it has to be done in the now.

## **Set goals, and monitor your progress.**

Keep track of how you are getting goals achieved and what adjustments need to be made along the way.

## **Learn how to meditate**

See how long you can sustain focus on your breathing and keep out all intruding thoughts. Notice all things associated with the breathing, but nothing else. Hear the sound of the moving air with each breath. Feel the pulse in your neck. If you don't feel it, crook your neck or lie down to feel it in your back or hear it by turning your ear to a pillow. Notice the rhythm and the gradual slowing. Feel your clothes shifting position and the tension flowing out of your muscles, first in the jaw, then in the back and legs. Not only does meditation teach your brain how to concentrate, it also lowers blood pressure and contributes to peace of mind.

***Task:*** What about attention training games? Is there any game to increase the attention span? Do you think such games can increase

the attention? If your answer is yes/no, then explain how they will assist you?



Best of luck.