

# Not spooked by Halloween ghost stories? You may have aphantasia

October 29 2021, by Rebecca Keogh

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Credit: Beyzaa Yurtkuran from Pexels

Halloween movies often feature kids sitting around a campfire sharing gory, spooky stories, trying to get someone to scream in fear.

This weekend you might be doing the same—sharing a horror story with friends. You may find one friend doesn't get scared, no matter how frightening a scene you try to paint in their mind.

So why are some people more easily spooked by stories than others? We ran an experiment to find out.

## Can you see it in your mind?

One reason some people are more easily spooked could relate to how well they can visualize the scary scene in their mind.

When some people listen to a [story](#) they automatically conjure up the scene in their mind's eye, while others have to focus really hard to create any sort of mental image.

A small proportion cannot visualize images at all. No matter how hard they try, they do not see anything in their mind. This inability to visualize is known as aphantasia.

Although we have known people vary in their ability to visualize [for many years](#), the term aphantasia was not coined until [2015](#).

We don't yet know exactly how many people have aphantasia. But [estimates vary](#) at 1–4% of the population.

## How scared are you?

If the ability to visualize images and scenes in the mind plays a role in how we react to spooky stories, what does that mean for people with aphantasia? How do they react when reading scary stories?

We [ran a study](#) to find out. We had people sit in the dark and read a number of short stories—not ghost stories, but ones with frightening, hypothetical scenarios.

One example involved someone being chased by a shark, another being covered in spiders.

As people read these stories, we recorded their fear levels by measuring how much the stories made them sweat.

We placed small electrodes on their fingers and ran a tiny [electric current](#) from one electrode to the other.

When you sweat this allows the electric current to flow from one electrode to the other easier, due to less resistance, and this results in [increased skin conductance](#).

This measure can pick up even very small increases in sweat you wouldn't otherwise notice.

For most people who could conjure up images in their mind, their skin conductance increased when they read these stories. But people with aphantasia didn't show a significant increase in their skin conductance levels when reading the same scenarios.

There was no difference between the two groups when viewing scary pictures. This suggests aphantasic people's lack of a reaction to these stories wasn't due to a general dampening of emotional responses.

Instead, we concluded the lack of a change in [skin conductance](#) in these people with aphantasia is specific to being unable to *visualize* these fear-inducing stories.

## What's going on in the brain?

Very little work has been done to measure [neural activity](#) in people with aphantasia to give us a firm idea of why they cannot visualize images.

One [study](#) shows both the frontal and visual regions of the brain are linked to visualizing images. And in people with aphantasia, the connection between these two areas is weaker.

Another study found the pattern of activity in visual regions of the brain [is correlated](#) with the vividness of the mental images.

So any reduction in connectivity between the frontal and visual regions may result in less control over the visual regions. This might lead to the inability to visualize.

## So what if you have aphantasia?

If you have aphantasia, it might just mean reading a [Stephen King novel](#) is unlikely to ruffle your feathers.

Theoretically, remembering fearful experiences might also be less scary. We did not test personal memories in our study, but we hope to look at these in the future.

People with aphantasia report their [personal memories](#) ([autobiographical memories](#)) are [less vivid](#) and [detailed](#) than people with visual imagery.

People with aphantasia may also be less likely to develop disorders associated with fear memories, such as post-traumatic stress disorder (PTSD).

Another possibility is they still may develop PTSD but it presents [in a different way](#) to people with visual imagery—without flashbacks. But more research is needed.

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