

# IMAGINATION



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# Definition


**IMAGINATION** is where a mind mixes experiences, knowledge, hopes, and emotions into a haphazard concoction to create ideas and scenarios that can leap beyond the bounds of reality. Often associated with creativity.



# Imagination as a way of knowing



**Imagination** is not only a way of knowing but also a way of finding the known. It not only helps discover knowledge but also find knowledge.

The image features two silhouettes of human heads facing each other against a vibrant, cosmic background of purple and blue nebulae and stars. Inside the left silhouette, a dragon is depicted breathing fire, with a castle visible in the background. The right silhouette is empty. The text is overlaid on the silhouettes.

Reciting information from  
Wikipedia doesn't  
necessarily make you look  
smart. Having an imaginative  
idea, however, or being able  
to think for yourself, seems  
to suggest the opposite.

We now have access to an  
entire entertainment  
industry which thrives  
largely due to the power of  
imagination. Imagination  
has become part of our  
daily lives, whether we feel  
particularly creative or  
not.

*Ana Han*



# How does imagination affect reality?

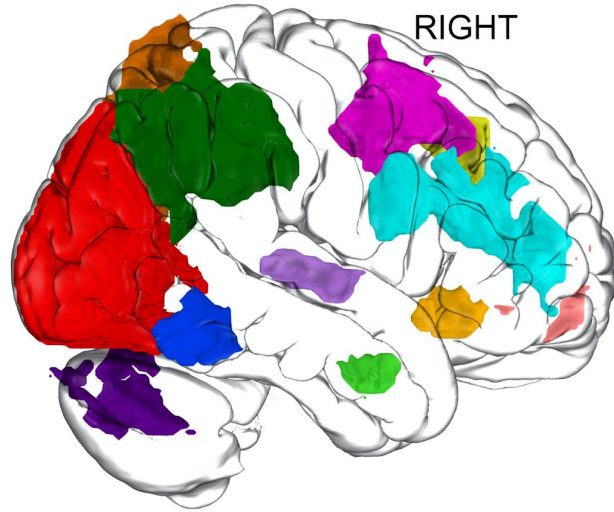
## Ways of knowing



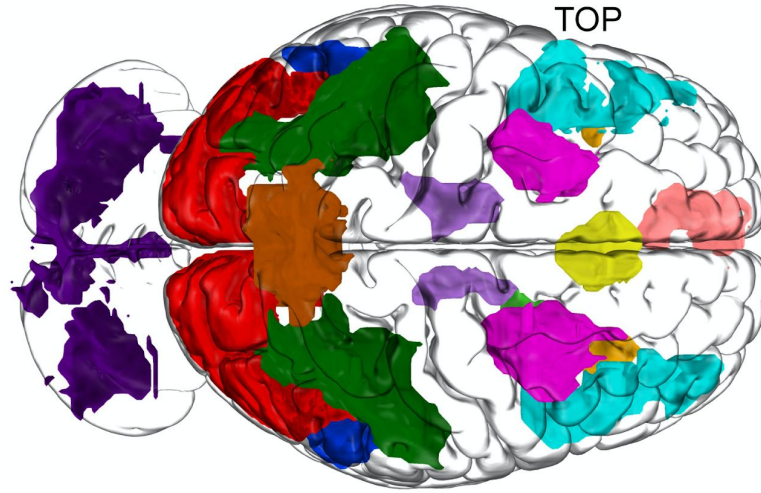
Imagination has much to do with reality. It shapes the way we see our reality, and therefore, affects our expectations and hopes, our actions and behaviour.

The imagination as a way of knowing is not “fantasy” and must be distinguished from fantasy.

The conception determines ahead of time how we experience reality. It provides us with our “understanding” of what we believe reality to be.



RIGHT



TOP

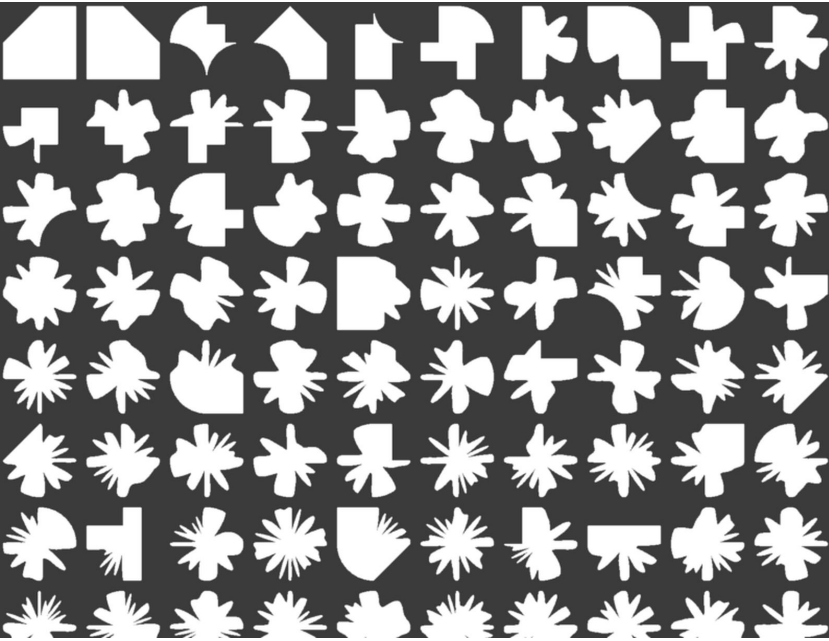
■ OCC 
 ■ CERE 
 ■ PPC 
 ■ PCU 
 ■ PITC 
 ■ THAL 
 ■ MTL 
 ■ FEF 
 ■ DLPFC 
 ■ SEF 
 ■ FO 
 ■ MFC

How  
imagination  
works?  
Brain  
workings

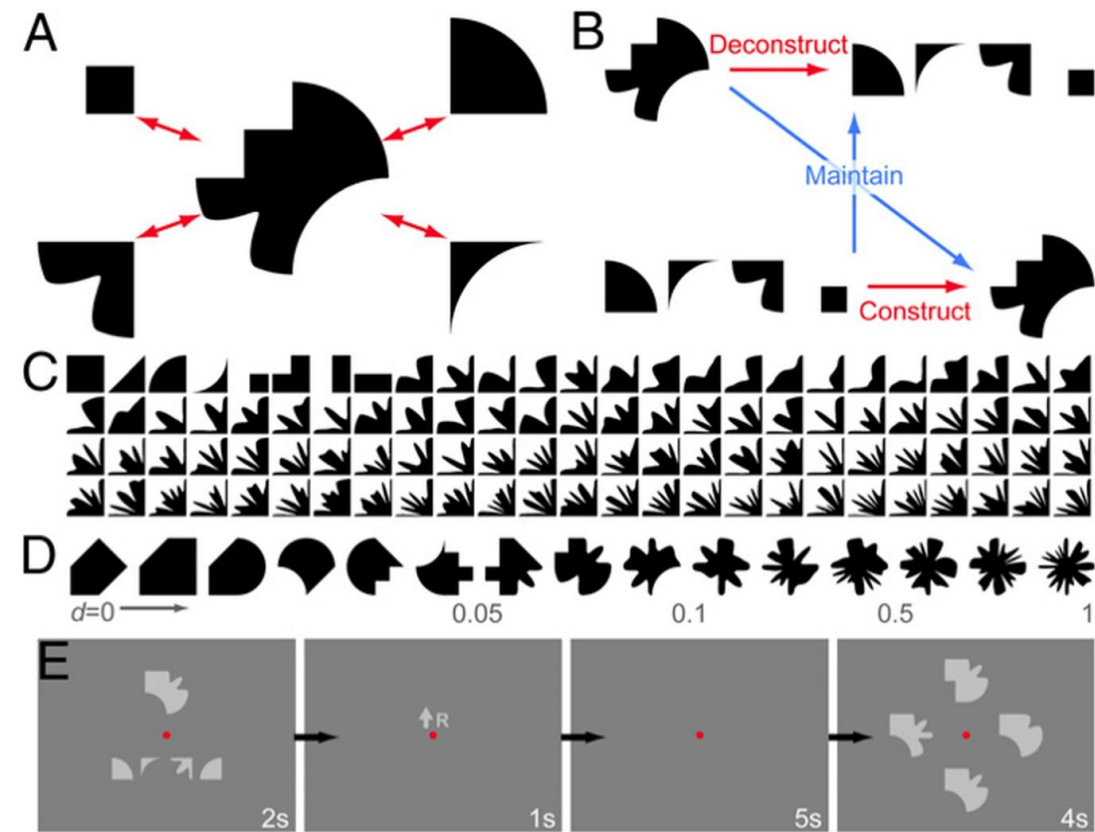
Imagination involves a network that helps share information across different regions of the brain. These different regions all work together to form mental images in our head. This is no easy task: Researchers found that as many as 12 different brain regions are involved when people imagine rotating a shape in their mind.

There are three certain factors that guide how we imagine: our environment, our memories, and the inherent rules we know about how the world works.

## An experiment



Shlegel and his colleagues asked 15 participants to look at pictures of abstract shapes, then recall the shapes in their imagination while they were undergoing an fMRI scan. Some participants concentrated on maintaining the image of the shape, while others were asked to change the images in their mind, either imagining deconstructing the shapes into requisite parts or combining them with others to make a new shape.



The researchers expected the mental manipulation activity to involve the visual cortex, the part of the brain that processes imagery. By looking at activity in the visual cortex, scientists in the past few years have been able to decode the type of image that a person is imagining—something scarily akin to mind reading.



To what extent does  
imagination help with  
the development of  
society?

# Create new ideas, concepts, and scenarios

- Invent and innovate
- Make sense of the world
- Ask questions, hypothesise
- Plan for the future



# Investing in the wrong ideas



- Impossible inventions
  - Current technology
  - Ultimately unachievable
- Waste time and resources
- Overambition, overzealous

# Real-life situations

- Our imagination, for example, interferes in our day when we are looking at something and trying to figure out with what does that object looks like. And we spend a lot of time doing that, we also lose a lot of time daydreaming, which is also another type of imagination.
- And this may sound like something normal, as something usual, but in reality, if we add up all the time we spend imagining and daydreaming we are looking at many hours lost from our week.



# In sciences

- Imagination can also be used in many good ways. In science, scientists can use their imagination to try to create new hypothesis, solve problems and to find solutions
- For the development of new goods, the imagination is very important because it helps developers to find new solutions and different ideas, so they can be later studied, tested, and if it works, put in production.

# In Arts

- Art is basically made of imagination and creativity, you need to have the imagination to be able to create unique and differentiated pieces of art.
- In filmmaking which is somewhat a form of Art you also need the imagination and creativity to be able to create the scene, plot, the characters, the story, the costumes, ect.
- A great example is the movie Avatar, they've spent more more than 5 years in the making of this movie. They had to create from scratch literally everything, from the language the avatars used to speak, to the physiology of the animals.
- If you've watched this movie you probably remember the animals and plants present on the movie, the level of imagination they've had to have to create all of that was enormous.

# In history

- In history, imagination can also play an important role. When studying ancient civilizations the historians and archaeologists can use their imagination to try to recreate what they are researching, and this help them better visualize what they are looking for.
- An example of that is when they is when historians and archaeologists were studying the pyramids in Egypt. They weren't sure of how the pyramids were actually made, so had to come up with different hypothesis, and see which one would fit the best considering the facts they already had.