

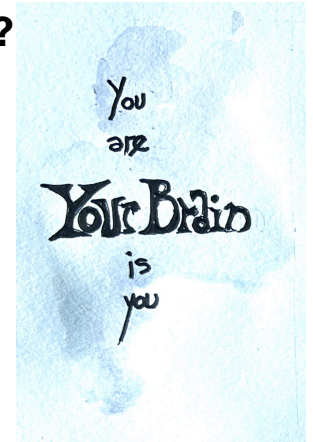
# Art & Your Brain

Suzi Shapiro 2024



## Why do we think this is true?

- Our awareness of who we are seems to be related to the physical function of the brain.
- We may feel “not myself” when brain function is changed by outside elements.
- Permanent or temporary damage to the brain tissue can limit ability or awareness.



## Who you are is created by ... Everything in your life.

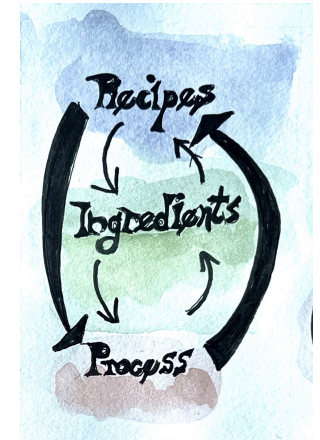
- What you inherit provides:
  - Strengths
  - Weaknesses
- What is around you provides:
  - Opportunities
  - Limitations
- What you do provides:
  - Physical changes
  - Increases in ability

**These all interact and change each other**



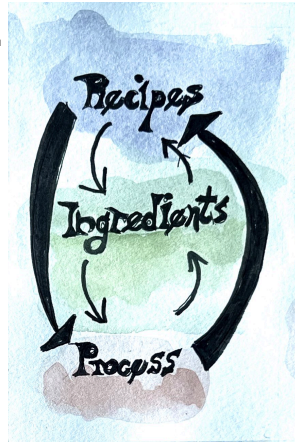
## In terms of your creative work you choose...

- Who you want to become or what you want to create (Creativity is an ability like others. It can be enhanced or learned, but not everyone can be good at it.)
- What tools and materials you select
- What skills and habits are available
- How you are going to use what is available to you



## Your success depends on ...

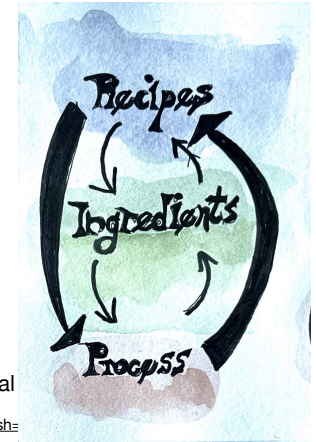
- Do you have the needed abilities?
- Do you have access to tools or materials?
- Can you substitute when necessary?
- Do you invest time in learning?
- Do you enjoy the process?



## Extreme Example

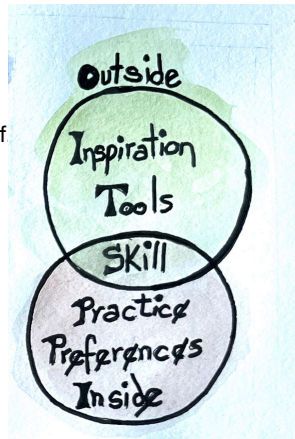
You are born without eyes

- This limits your ability to experience what people with eyes experience
  - It would be easier to choose to create:
    - Music
    - Sculpture
    - Paintings that emphasize physical texture
- (Intro to Tactile Art, Made by Artists with Visual
- <https://www.youtube.com/watch?v=7k1szT56img&themeRefresh=>



## You have access to resources

- Some you can seek out in your environment
- Others you will need to develop inside of yourself
- The resources you choose to collect and develop will determine your final skills.

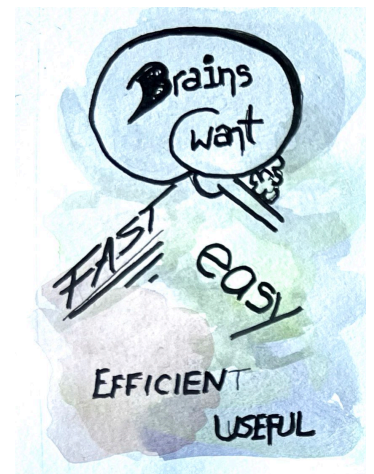


## What are you most likely to choose?

- Most brains prioritize things that help us get by in the physical world
- Other priorities are things that
  - Need little learning
  - Are rewarded

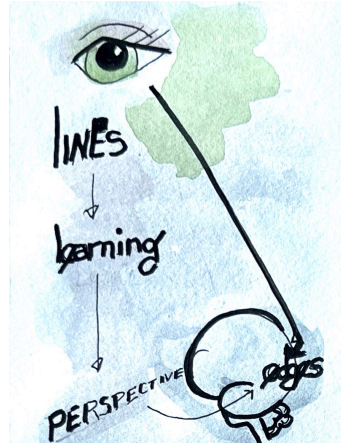
### Your brain constantly lies to you

- Developing a "style" in your art can
  - Improve how efficiently you can create products.
  - Or be a way to avoid effort



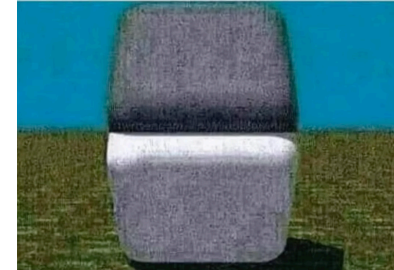
## How does the brain SEE?

- The first things recognized in seeing are EDGES
- Contour drawings
  - Seem to make sense to most people
- Perspective needs to be learned
  - Children often draw things larger or smaller based how important they are.
  - Perspective requires understanding that things farther away appear smaller



## Your brain enhances perceived edges

Both blocks are grey in color.  
Use your finger to cover the  
middle line.



## Some ways of seeing appear without learning

- Babies seem to recognize a face even when it is only two dots and a line
- Advanced versions of recognizing faces need to be learned
- A built in ability allows us to see faces in unusual situations
- If part of the brain is not working, you may not be able to recognize individuals by just looking at their faces



## We tend to pay more attention to things that appear separate from their background

- While ambiguous figure/ground situations can be fun they are also confusing and may be distracting
- Selecting a clear focal point or figure can be important in some types of art
- Your culture may teach you to pay more attention to figure or ground



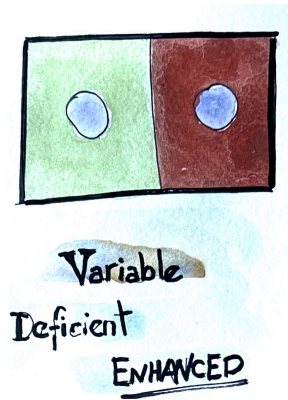
## We often assume that others experience the same world as we do

- Some people cannot imagine an object
- They may recognize things in the world, but may depend on reference images to draw a specific thing, or create in a limited style, or prefer to create abstract art
- Some people can imagine something so well that they can manipulate it in their mind, rotating it, or imagining aging or wear points



## Color is not absolute!

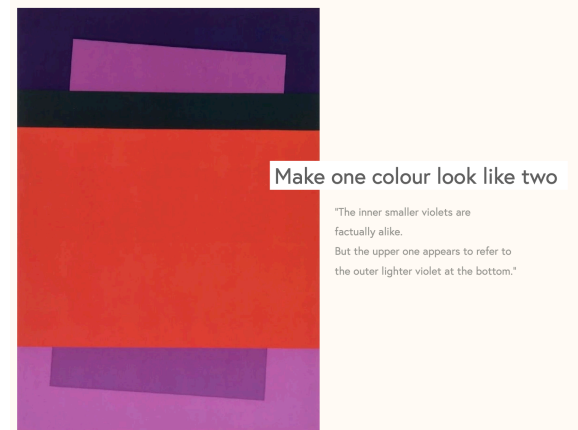
- You may experience color differently than anyone else
- You may confuse some commonly identified colors as the same as another color (red and green as a yellowish shade)
- You may notice color differences that most other people can't detect
- Colors can also have different meanings and associations
- Colors are influenced by the colors near them



## Josef Albers

“In visual perception a color is almost never seen as it really is—as it physically is.  
This fact makes color the most relative medium in art.  
In order to use color effectively it is necessary to recognize  
that color deceives continually.  
To this end, the beginning is not a study of color systems.”

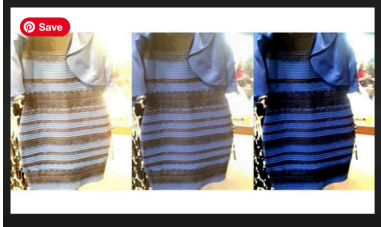
<https://www.albersfoundation.org/alberses/teaching/interaction-of-color>



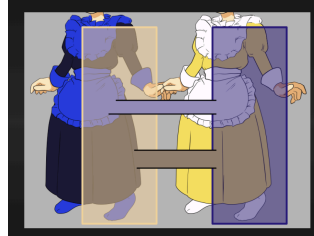
<https://www.harrietelemerrion.com/blog/2022/1/18/understanding-josef-albers-interaction-of-colour>



## Do you remember “THE DRESS”?



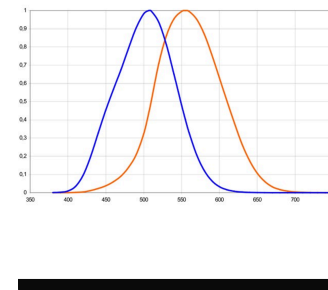
<https://www.trendingbird.com/wp-content/uploads/2023/04/The-Science-Behind-White-and-Golden-Dress-Illusion-Explained.jpg>



<http://mesosyn.com/dress-12.png>

## Purkinje effect

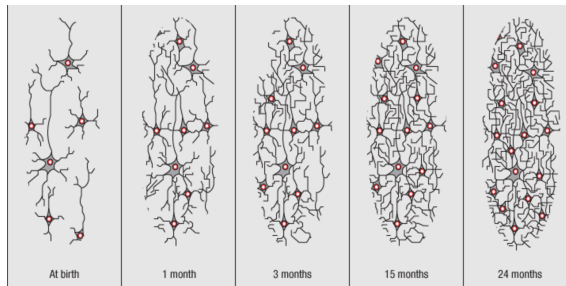
### Purkinje-Effekt



- <https://www.ecured.cu/images/5/53/Purkinje-effect.jpg>

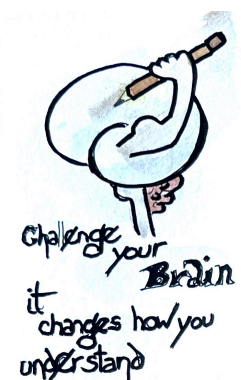
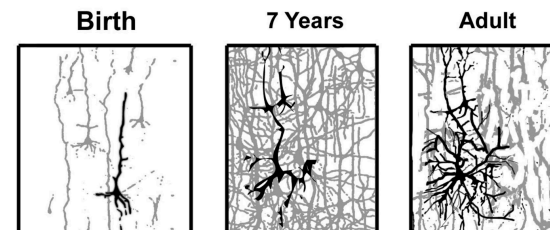
## What changes take place in your brain over time?

Infants are born with between 100 and 200 billion neurons

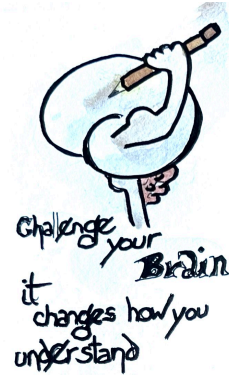


## What changes take place in your brain over time?

Neurons in an adult are fewer but more complex and may have more than 5,000 connections

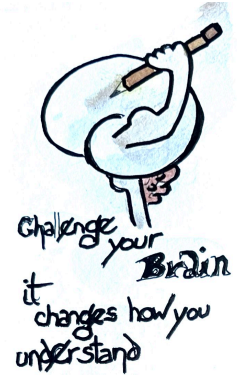


# Use it or lose it

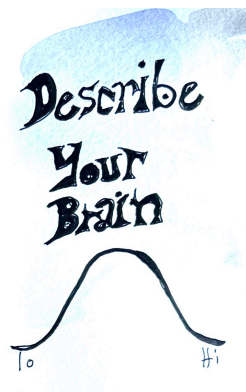


## Brains Love **NOVELTY!**

### Trying new things and failing is good for your brain

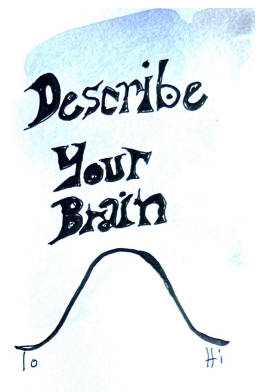
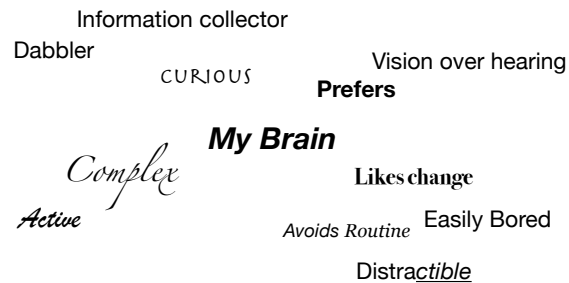


- What abilities are similar to others in your family?
- Are these related to a physical similarity?
- Do these seem to depend on observing and being taught how to do things?
- What skills are easy for you to learn?
- What skills do not seem to improve with practice?
- What feels good?



## Assignment

Make a mind map describing your brain



Thanks for listening

