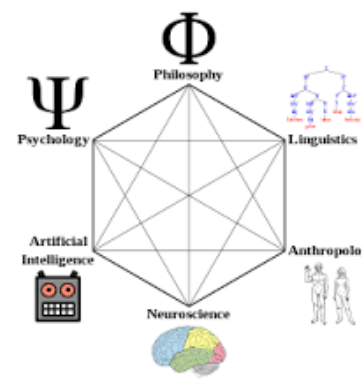




# Psychology and perception

# What is psychology

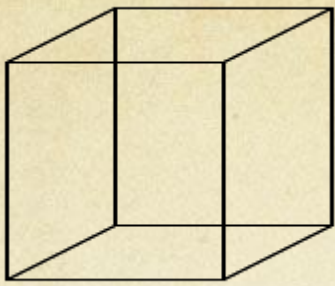


- Psychology is the scientific study of the mind and its functions. An American philosopher, William James, defined psychology as ‘the science of mental life’ in 1890, and while this is a great starting point there has since been improvements in technology and therefore our understanding of the human mind.
- Psychology contributes to what is known as cognitive science. The work of psychologists is closely linked to the work of other scientists, all of which helps us to understand human kind.

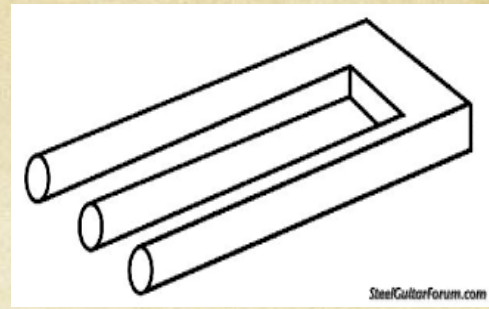


# What is perception

- Perception is the process of recognizing and interpreting stimuli in order to understand the environment.
- The study of perception includes areas such as optical illusions, perceiving the real world, perceptual processes and selective attention. All of which will be covered in later slides.



# Optical illusions

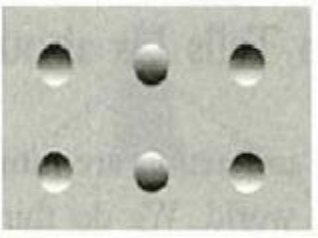


- What is an optical illusion?
- An optical illusion is something that deceives the eye, it appears to be one thing when in reality it differs from your perception.
- The Necker cube:
- A cube formed of 2d lines perceived as a 3d shape. If you stare at the cube long enough what you perceive as the front and back face will alternate.
- The devils turning fork:
- at any given time you either can or cannot see three prongs

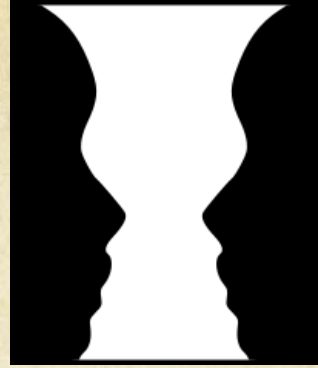


# Perceiving the real world

- The first stage of perception is detecting signals; even though, the human eye can detect less than one percent of the visible spectrum our sensitivity is exceptional. On a clear night a single candle flame could be seen from 30 miles away.
- Once a signal is detected our sensory receptors convert one form of energy into another, so that the information gathered can be transmitted as a pattern of neural impulses that can be perceived in the brain.
- Our perception of reality can differ from the truth because of factors such as attention, expectations, motivations and inclinations, as well as sensory deprivation or overload.
- Sensory deprivation is when you habituate to the environment, resulting in strange experiences and hallucinations. sensory overload for an extended time can have the same results.



# The process of perception



- One of the most basic perceptual processes is distinguishing objects from their surroundings, a stimuli where this can be observed is known as 'Rubin's vase'. At any one time you will only be able to see either a vase or two silhouettes, when one becomes prominent the other becomes the background.
- Another perceptual process allows us to perceive important things before unimportant ones. In the source 'h before s' both letters are equally visible but our brain has decided their level of importance making us see the h first.
- The domino illusion - our brain has a predisposition to believe the sun comes from above so when our view of the domino changes so does our interpretation of the spots.



# Making use of a limited capacity system

- Our brains make the best use of a limited capacity system by only paying attention to things that are important to us.
- When in an extremely crowded area we block out all background noise, only paying attention to conversations that we were involved in, all other noise is completely inaudible until your name is mentioned. Our brain filters low-level information in order for us to make the best use of a limited capacity system.
- Sometimes we perceive things without realizing this is known as subliminal perception, such as hearing our name mentioned.
- There are two types of processing:
- Bottom-up processing - seeing something in the real world that triggers brain activity.
- Top-down processing - bringing up past experience when reacting to stimuli, relying on internal information

Thank you for listening!