- Sarah is sitting in a crowded coffee shop, engrossed in a book. Suddenly, her friend waves at her from across the room. Without looking up, Sarah immediately recognizes her friend's gesture. What type of attention is Sarah using in this scenario?
    a) Overt attention
    b) Inattentive attention
    c) Covert attention
    d) Passive attention

- Alex is driving on a busy highway when he notices a flashing red traffic light ahead. He quickly shifts his gaze towards the signal, evaluating the need to slow down. What type of attention is Alex using in this situation?
    a) Covert attention
    b) Selective attention
    c) Overt attention
    d) Divided attention

- David is watching a magic show. The magician asks the audience to focus on a specific card while performing a sleight of hand. What attention phenomenon is the magician utilizing in this situation?
    a) Divided attention
    b) Attention as a Spotlight
    c) Cocktail Party Effect
    d) Involuntary attention

- Alex is playing a video game that requires both shooting enemies and collecting items. Suddenly, a new wave of enemies appears, and he struggles to switch to collecting items. Which cognitive process is evident in this delay?
    a) Involuntary attention
    b) Stroop Effect
    c) Psychological Refractory Period
    d) Reaction time

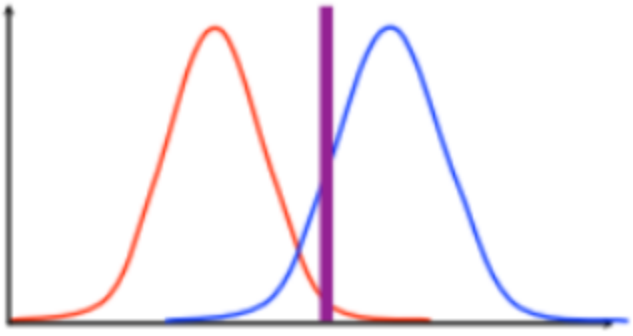
- Agent X is tasked with identifying enemy signals amidst a barrage of background noise. Applying Signal Detection Theory, what does it mean when Agent X has a high hit rate and a low false alarm rate?
    a. Agent X is an exceptional spy, accurately detecting enemy signals and rarely mistaking harmless noise.
    b. Agent X is overly cautious, often mistaking innocent background noise for enemy signals but rarely missing actual threats.
    c. Agent X is a risk-taker, frequently identifying enemy signals but also raising alarms for harmless background noise.

d. Agent X is struggling with the task, frequently missing enemy signals and misinterpreting harmless background noise.

- David is at a party where multiple conversations are happening simultaneously. He finds it challenging to keep up with more than one conversation at a time. What aspect of attention does David's experience illustrate?
  a) Covert attention
  b) Inattentional blindness
  c) Capacity limited attention
  d) Cocktail Party Effect

- _____is the general level of stimulation or readiness to act.
  Arousal
- An _____is a rapid sequence of changes in the voltage across a membrane
  action potential
- In _____, electrodes are placed outside the cell to detect the summed electrical activity of nearby neurons, providing information about action potentials and neural communication.
  Extracellular recording
- _____ is a neuroimaging technique that measures brain activity associated with blood flow.
  fMRI (Functional Magnetic Resonance Imaging)
- In terms of measuring rapid changes in neural activity, which technique is more suitable?
  a) EEG
  b) fMRI
  c) Both have equal sensitivity to rapid changes
  d) Neither EEG or fMRI can capture rapid changes

- Given figure is example of what in signal theory where Criterion is shifted towards Noise —



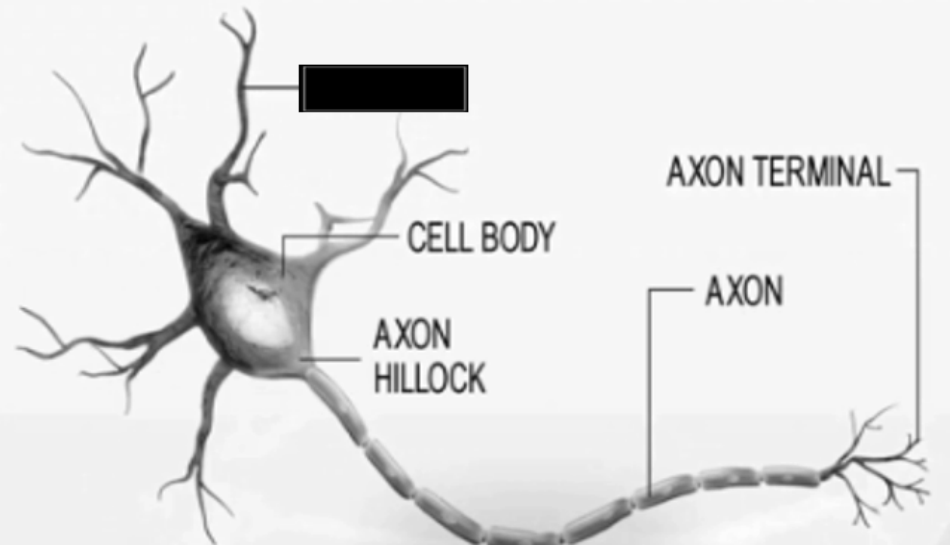
A. Liberal Bias
B. Conservative Bias
C. No Bias
D. None of these

S1

- Which of the following is not a technique used in measuring brain activity
    a) Electrocorticography(ECoG)
    b) Fluorescence Calcium Imaging
    c) Functional magnetic resonance imaging(fMRI)
    d) Mass Spectrometry

- During a signal detection task, if Sam could not detect any signal despite a signal being present, this must be case of
    a) False alarm
    b) Hit
    c) Miss
    d) None of the above

- Refer to the figure. The blank label corresponds to



    a) Dendrite
    b) Cell Membrane
    c) Nucleus
    d) Node of Ranvier

- What is the speed and accuracy trade-off?
    A) decisions are made slowly with high accuracy or fast with high error rate
    B) decisions are made fast with high accuracy or fast with high error rate
    C) decisions are made fast with high accuracy or fast with low error rate
    D) decisions are made slow with high accuracy or fast with low error rate

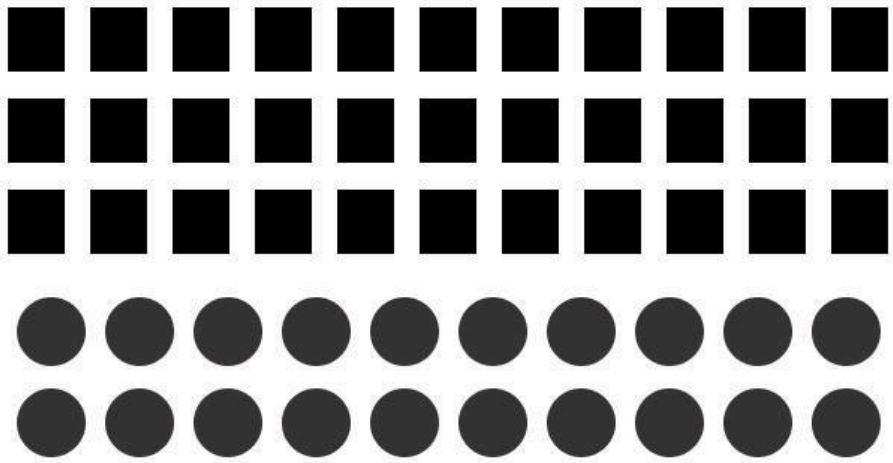
- Which of the following is one of the functions of Temporal lobe?
    A. Face Recognition.
    B. Depth Perception.

C. Spatial Location.
D. Speech and Language Control.

- What term refers to the process by which the brain organizes and interprets sensory information to give it meaning?
  A. Sensation
  B. Perception.
  C. Attention.
  D. Memory.

- Which part of the brain is responsible for depth perception?
  A. Occipital Lobe.
  B. Temporal Lobe.
  C. Frontal Lobe.
  D. Parietal Lobe.

- In the picture below, you can see a couple of square and rounded shapes. Though they all are separated by space, but perceptually, we can make some groups out of them i.e all the square shapes together create a perceptual group.

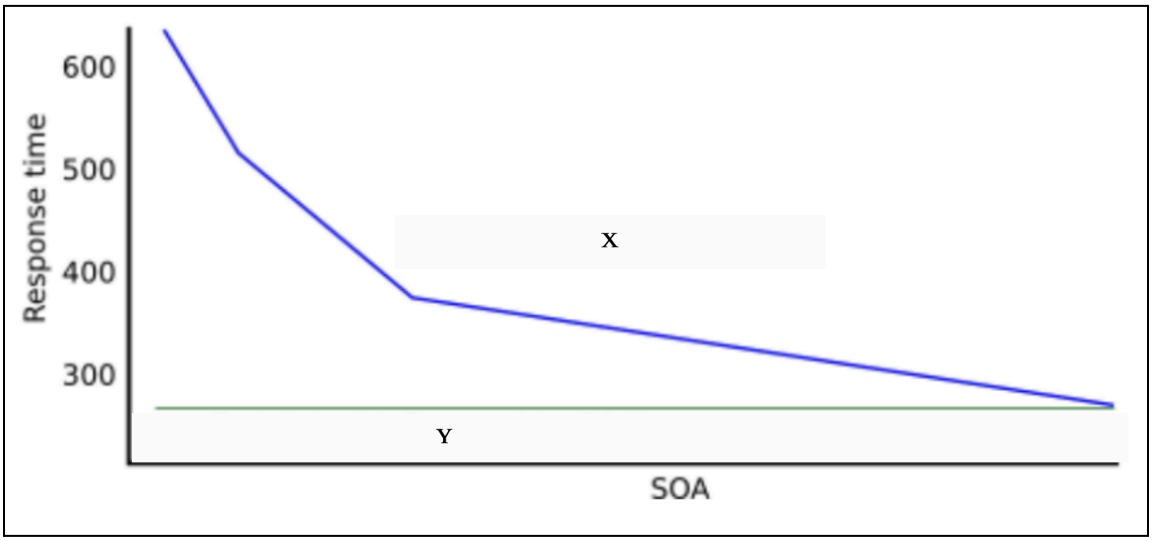


- What kind of attention is crucial in gathering information and making perceptual grouping?
  A. Transient attention
  B. Visual spatial selective attention
  C. Temporal attention
  D. Object-based attention

- Imagine you are attending a party with multiple conversations happening simultaneously. According to Broadbent's model, which stage of information processing is responsible for filtering out irrelevant conversations before further analysis?
  A) Sensory input.

B) Filter processing.
C) Pattern recognition.
D) Response selection.

- An experiment was conducted with 2 tasks shortly after each other (task 1 & task 2), the experimental data was then used to plot the graph given below. Identify the X and Y in the graph



A. X - Task 1 influenced by SOA, Y - Task 2 not influenced by SOA
B. X - Task 2 influenced by SOA, Y - Task 1 not influenced by SOA
C. X - Task 2 not influenced by SOA, Y - Task 1 influenced by SOA
D. X - Task 1 not influenced by SOA, Y - Task 2 influenced by SOA

- The dynamics of pupil diameter can be recorded using an eye tracker. Pupil constricts and dilates based on different situations and circumstances like changes in light intensity or cognitive processing. Choose the most appropriate option from the below
    a. Pupil can only be used to study the changes in light intensity, not anything else
    b. Though pupil dynamics can be used to study cognitive processes it can't be used as study mental and behavioral disorders i.e ADHD
    c. Pupil can be used only to study Attention, not other cognitive processes like Learning or memory.
    d. None of the above is correct

- The conflict between the Filter Attenuation Theory of Attention and Late Selection theories revolves around the crucial question:
    A) Whether irrelevant information is completely filtered before or after meaningful processing.
    B) How attentional resources are allocated in the presence of irrelevant stimuli.
    C) Whether working memory capacity influences the selection of irrelevant information.
    D) The extent to which sensory input is attenuated in the presence of attentional filters.