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LAB REPORT

**Introduction**: Signal detection theory is way to measure the difference between information bearing patterns and random patterns which distracts from the information, this theory is basics states that detection depends on both intensity of stimulus and also psychological state of every individual, we notice things on how strong they are also on how we are paying attention to that particular things, studies conducted and came to conclusion that when stimuli are difficult to detect individual rely on their abilities to check whether the signal was present or wasn’t present, basically the individual person makes the decision, it is wrong to say that stimulus was present when it was, or to say that stimulus was present when it wasn’t,

**Method:** first we would add polygon and name it fixation, also change the size to 10 by 10, now we would add grating into it, adding grating property, and start time from 1.0, and duration till.3, orientation would be variable for us which would be tilt, and change to set every repeat, and changing size to .2, changing appearance to color and contrast value 0.3, texture mask to cosin, spatial frequency 5 rows, now adding key board response, start at moment grating comes on screen, and keeping up down response, if grating is vertical up arrow key and not vertical down arrow key, now adding correct answer, now we are done with keyboard response, now we need to add, codes, and paste the same codes to end of the routine, now adding loop, and lets go for 10 trials,

**Results:**

**Discussion:** signal detection theory has d and c in it where d is called dee prime which is the standard deviation between the means, of signal present also signal absent distribution, it is most commonly used in signal detection , where false alaram and hit rates are been measured, respectively, which corresponds to right-tail probability, on normal distribution, thus, FA and H are the scores, to measure the correspondence to right tail.

So d makes us inform standardized difference between signal present and signal absent distribution,

Now cming to c in signal detection , c in signal detection theory inform us propotions of hits, and misses, represented under the signal distribution, where B reflects us with subject criterianand c reflects bias