Lecture 6 Perception

* All perception wrong! Our brain construct understanding based on limited info!

#1 Biological Basis

> Vision as example

photon - a bunch of other stuff 2 rooks \$ comes (cells) - electrical signal visual cortex

Fire differences at diff places in visual field

(feature detection in NN)

Loderal inhibition see sth interesting > make surrounding not fire - color delection

Hermin Grid

Should fire but not firing

Hey don't fire

Hey don't fire

Retinotopic mapping Make visual representation Near things on near neurous

part of brain

 $\longrightarrow \mathscr{F}$

Receptive fields Respond to certain region in visual field / certain feature / certain stimulus

- Motion - Orientation

- Direction - Length

i.e. extra stimuli

* Relative Treshold - How much need to change

to make your notice something

→ candle in dark is candle here in lecture hall.

#2 Visual Deficits

* Visual Pathway

Brain

they are in separate parts! So where. visual info what. > perception

- What system damage
 Visual agnosis com4 recognise things
 Prosopagnosia com4 recognises faces specifically
- Where system damage
 Only able to draw part of sth.
 Fail to dress / clean / make up etc.
- Blind sight
 - Not aware they can see, but they can

#3 Perceptive Strat & Illusions

Expectation — knowledge of world, etc.

| top-down
| perception
| 1 bottom - up

Outside info

3 Some illusions
- Brightness constancy: brain auto correct brightness using context
- Colour - - - colour - - Shape - - - - shape - - -

size

- Size