Perception revision notes

	PERCEPTION
KEY TERMS	**Structure of the eye:** retina (light sensitive – rods and cones), optic nerve (bundle of cells at the back of the eye), rods (light sensitive cells), cones (cells that detect colour) **Blind spot:** no rods or cones **Optic chiasma:** information crosses from left and right eye in brain **Visual cortex:** back of brain that interprets information **Depth cues:** monocular – superimposition, relative size, texture gradient, linear perspective, height in the plane. Binocular – stereopsis (dominant eye –map image) **Size constancy:** close to retina = scale down , far away from retina (scale up)
THEORIES	**Gestalt law:** figure-ground, whole stimulus, closure, proximity, continuity. Explains fictions well (weakness why don't we see 6 pointed star?) and Muller-Lyer (uses all stimulus) **Gregory's theory:** angled lines, depth cue, size constancy = good at explaining Ponzo and Muller-Lyer (fins) due to depth and angled lines, can explain some ambiguous (wart on Leeper's lady) (weakness can only explain Muller-Lyer with fins not circles) **Illusion:** fiction (Kanzisa triangle), after effect (colour/motion), ambiguous figures (Leeper's Lady), distortion (Muller-Lyer, Ponzo) Gestalt's Law - Uses all **stimulus** to make the whole image **Figure-ground** (figure = complex, smaller, symmetrical. Ground = simple, larger, disorganised) - Laws of **closure, proximity, continuity** - Explain fiction illusion such as the **Kanizsa triangle** due to law of closure and using all the stimulus as a whole to perceive image - Explains the **Muller – Lyer (distortion)** with fins and circles as using the whole image - Gestalt **explains figure-ground** = ambiguous illusions because we can't tell what is the figure/ground (e.g Rubin's Vase and Leeper's lady) they are made up of the same stimulus - It can't explain other distortions other than then Muller - Lyer (Gregory can) - It does explain fictions well apart from we should see the 6 pointed star if we are to perceive it as a 'whole'. Gregory's Perspective - Uses **size constancy, depth cues (linear perspective) and angled lines** to explain - Object far away = scale up as small image in retina. Object near = scale down as bigger image on retina - Explains **distortion illusions – Ponzo Illusion and Muller –Lyer (fins)** as we use the depth cue and apply size constancy which then distorts our perception. **Ponzo illusion** – apply linear perspective due to the lines converging at the top - Gregory is good at explaining distortion illusions if angled lines are used - It can't explain the Muller – Lyer with circles - Gregory can explain some ambiguous figures – Leeper's Lady (uses the wart on her nose as a depth cue)

RESEARCHING/MET HODOLOGY/ETHICS	**Hypothesis** – statement of prediction. **Aim** – what the researcher wants to find out. **IV –** manipulation of variable. **DV –** what is measured. **Controls –** something the researcher does to keep variables the same in the conditions. **Descriptive statistics –** mean, median, mode, range. **Ethics –** informed consent, right to withdraw, ethical guidelines. **Evaluating experiments** – strengths = right to withdraw; informed consent; controls; measuring DV. Weaknesses – hiding aims; deception; failure to represent real life.
STUDIES	**Palmer: aim –** whether context affects perception. **Method –** 64 students, lab, shown visual scenes for two seconds and provided a context, then shown an object. IV = appropriate, inappropriate similar object, inappropriate different object, no context. Repeated measures design. DV = correctly identified objects. **Results –** ps correctly identified most objects after seeing an appropriate context and the least after seeing inappropriate context. **Conclusion –** expectations affect perceptual set. **Strengths –** controlled length of time seeing objects, ps had instructions. **Weaknesses –** ps told what they were doing = demand characteristics. Data unreliable as some data was not used. **Bartlett: aim –** investigate how information changes. **Method –** folk tale 'The War of the Ghosts'. Serial reproduction task = ps read then waited 15-20 minutes then told the next person. Repeated reproduction = each ps tested separately. Read story and at intervals retold story. **Results –** few ps recalled story accurately. Details such as names are lost, events made less complex, inaccurate details are put in. **Conclusion –** unfamiliar material changes when it is recalled and becomes shorter and simpler. **Strengths –** both repeated and serial reproduction tasks were done many times. Other stories were used. **Weaknesses –** choosing unfamiliar material, Bartlett could not be sure that the changes he found would happen with familiar information. Bartlett did not always test the repeated reproduction ps after the same time intervals. **Carmichael et al: aim –** whether words shown with pictures would affect the way the pictures were remembered. **Method –** lab ext, 95 ps split into three groups. Shown 12 pictures followed by a word, 'they next stimulus resembles a…'. Independent groups design. Ps asked to draw the picture they had seen and were compared to the original. **Results –** over 3000 reproductions and 905 put into category into almost changed. List one 73% resembled word given, list two 74% resembled word given. Control group only 45% resembled either one of the words. **Conclusion –** context does affect the recall because the memory of the word alters the way the picture is represented. **Strengths –** control group used, two groups (lists) showed clearly that the verbal labels affected people's drawings. **Weaknesses –** study not very life like – when we see an object, we can generally tell what it is and any verbal cues tend to match the stimulus.
APPLICATIONS	**Schema and eye -witness memory-** eyewitnesses are important in crimes. What we see or hear can affect what is recalled – our expectations, and schemas. **Tuckey and Brewer (2003)** what was typical of bank robbers. Showed ps a video of a bank robbery that contained three kinds of facts: fitted the schema, opposite of the schema and irrelevant of the schema. When asked, they found that they remembered the facts that fitted the schema or were opposite well. **Boon and Davis (1987) –** showed ps slides of a violent knife attack – white man on London Underground. When asked to recognize the scene many ps wrongly chose the image with the black man holding the knife.