

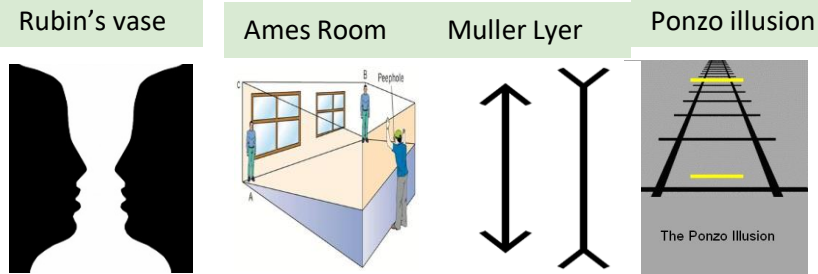
Sensation: the information we receive through our senses.
Perception: how we interpret or make sense of the sensory information that we receive.

Visual illusions

Happen when our visual perception is tricked into seeing something inaccurately. We misinterpret what is actually there in reality.

Reasons/Explanations

Misinterpreted depth cues- a depth cue is used inappropriately – e.g. Ponzo & Muller-Lyer, Ames room.
Ambiguity- having more than one possible meaning or interpretation - Rubin's vase
Fiction – creating something that isn't really there to complete an image - Kanizsa triangle
Size constancy – keeping our original perception of the size of an object, even when the image received by the eyes changes.



Visual cues

Monocular depth cues



A way of detecting depth or distance which works with just one eye.



Binocular depth cues

A way of detecting depth or distance, which requires two eyes in order to work.
 Using binocular depth cues allows us to be much more accurate in our judgement of depth.

Gibson theory- KEY THEORY

Perception is innate it isn't based on past experience, contrasts with Gregory's theory.
 Sufficient information for direct perception – sensation and perception are the same. Eyes detect everything we need without having to infer.
 Motion parallax- when moving items closer to us appear to move faster than objects that are further away tells us about speed and distance.
 Texture and colour gradient – changes in patterns, shades, tones.
 Affordances- uses of an object can be perceived without need for past experience.

Gregory's theory- KEY THEORY

Perception and sensation are not the same.
 Perception is a construction: brain uses incoming information and information we already know to form a hypothesis/guess.
 Inference fills gaps to create conclusions about what is being seen.
 Visual illusions occur because of incorrect conclusions from visual cues.
 Perception is learnt from experience. The more we interact the more sophisticated our perception.

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+ Support from visual cliff – babies didn't crawl off shows depth cues innate

- Can't explain why visual illusions trick us

+ Real world application – pilots in WW2 used information from nature to land planes

Evaluation

+ Support from Hudson research into culture interpreting cues differently .1

- Used 2D illusions which are artificial so may not apply to real world

- Visual cliff study shows some cues innate

Types of monocular depth cues:

Height in plane: How high the object appears in the image

Relative size: How large an object appears in an image

Occlusion: When one object seems to cover part of another object

Linear perspective: When straight lines are angled so that they would come together at a point on the horizon

Convergence: eyes point closer together when an object is close. Muscles work harder so know distance and depth

Retinal disparity: difference between the view of the left and right eye gives the brain information about depth

Factors affecting perception

Motivation- KEY STUDY

Gilchrist and Nesberg

Aim: To find out if food deprivation affects perception of food.

Method: 26 students. Half had no food 20 hours other ate normally.

Shown slides with images of food e.g. hamburger. Had to adjust light to level of slide shown previously.

Results: food perceived as brighter longer they went without food.

Conclusion: hunger can affect how we perceive images of food therefore hunger is a motivating factor.

Expectation- KEY STUDY

Bruner and Minturn

Aim: To see if expectation can direct perception.

Method: 24 students show sequence of letters or numbers with an ambiguous figure in the middle that could be interpreted as a B or 13 asked to write down what they had seen.

Results: Participants in the letter condition wrote a B, participants in the numbers condition wrote 13.

Conclusion: participants expectations had directly affected how they interpreted the ambiguous figure.

Culture

The way we are brought up can influence our perception. Hudson research showed that children from tribal cultures interpreted the depth of an image showing a hunter, antelope and elephant differently.

Emotion

Our moods can affect how we perceive. Children who are excited about Christmas time drew pictures of Santa bigger and with more presents than they did after Christmas and the excitement has gone. Upset people notice more upsetting events and actions

Evaluation

- + High ecological validity as participants actually hungry
- + further research support from similar study
- Sample size was small and all students so difficult to generalise
- Ethical issues of depriving participants from food may cause discomfort

- + applications to real world as explains why people make mistakes
- + controlled & counterbalanced improves validity
- Sample size was small and all students so difficult to generalise
- Artificial task lacks ecological validity