

Perceptual Set/ Expectancy



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The New Beetle, by special delivery only.



Perceptual set

- **A readiness to perceive in a particular manner, induced by strong expectations**



Perceptual set

- **A readiness to perceive stimuli in a specific way**



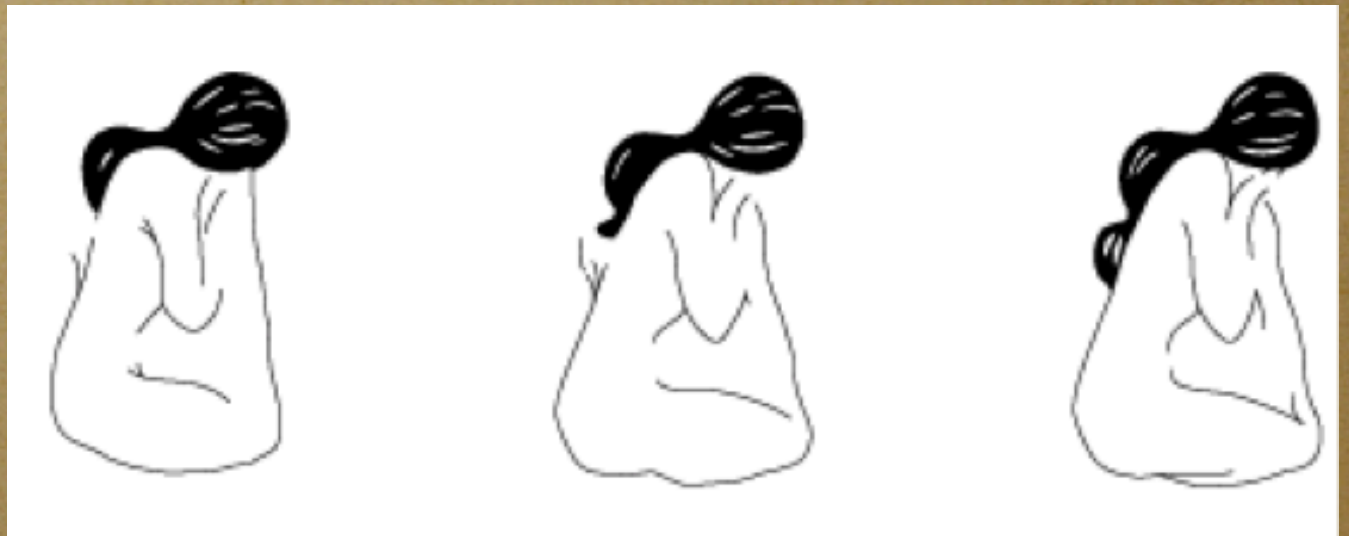
Perceptual set

- A readiness to perceive stimuli in a specific way



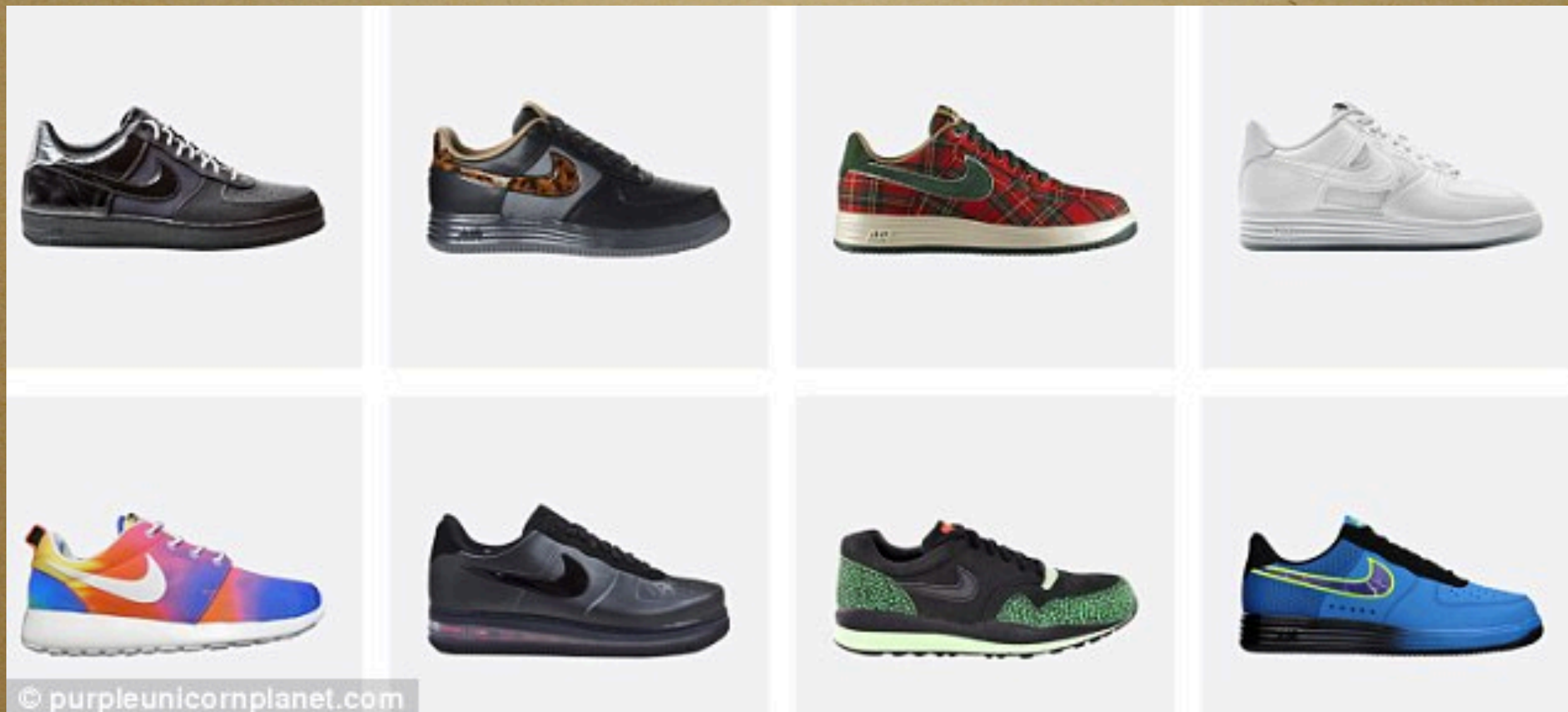
Perceptual set

- A readiness to perceive stimuli in a specific way



Perceptual set

- A perceptual bias, predisposition or readiness to perceive particular features of a stimulus.



Perceptual set

- For instance, you might have a tendency to notice some aspects of the available sense data and ignore others.



Sunday, March 16, 14

Perceptual set

- For instance, you might have a tendency to notice some aspects of the available sense data and ignore others.

Context → Expectation
→ Perceptual Set



Factors that influence perceptual set...

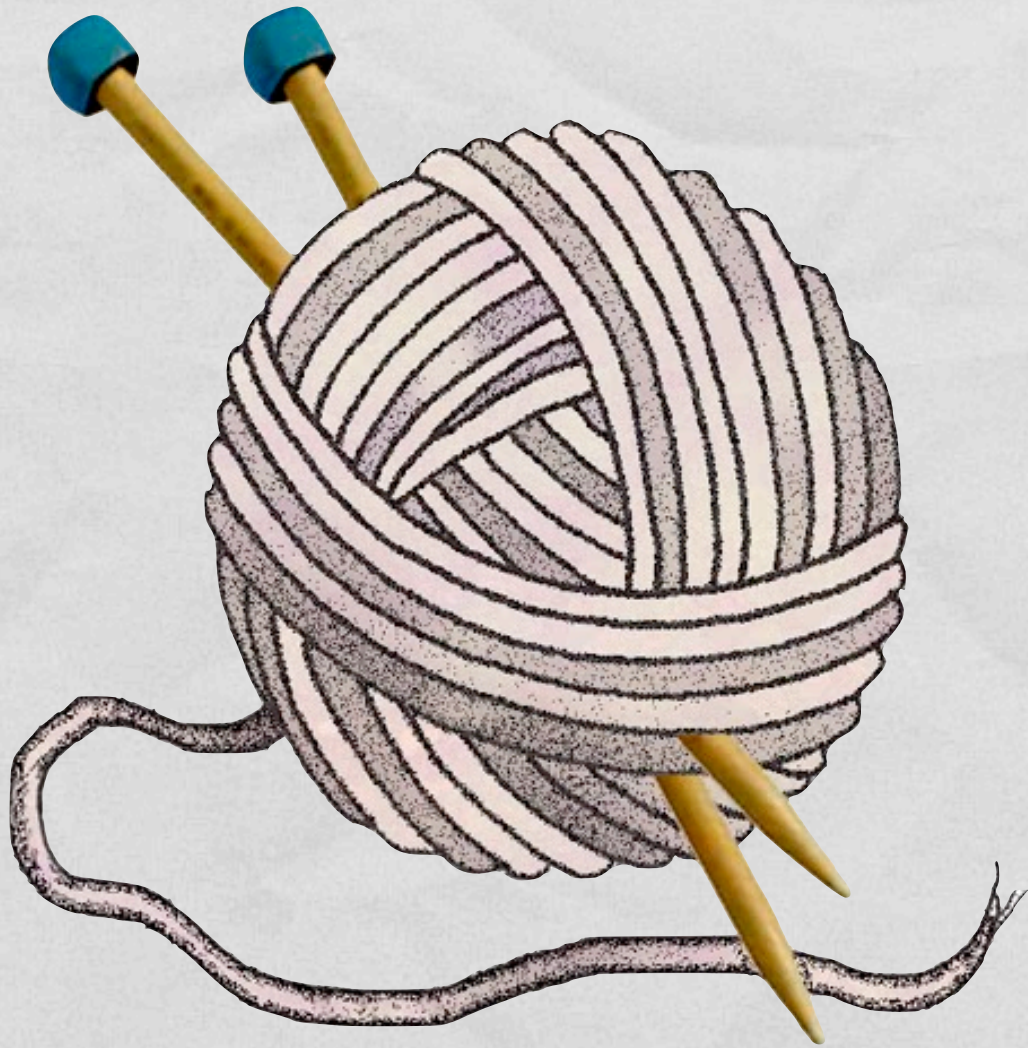
- Prior experience
- Instructions
- Context
- Motivation
- Emotion
- Cultural factors/background

Definition of perceptual set once more:

- A perceptual bias, predisposition or readiness to perceive particular features of a stimulus, for instance, to notice some aspects of the available sense data and ignore others.

- What sorts of things do you notice in the “sense data” that your friends / relatives might not?
 - What factors might influence the variations between your perceptions and those of your friends?

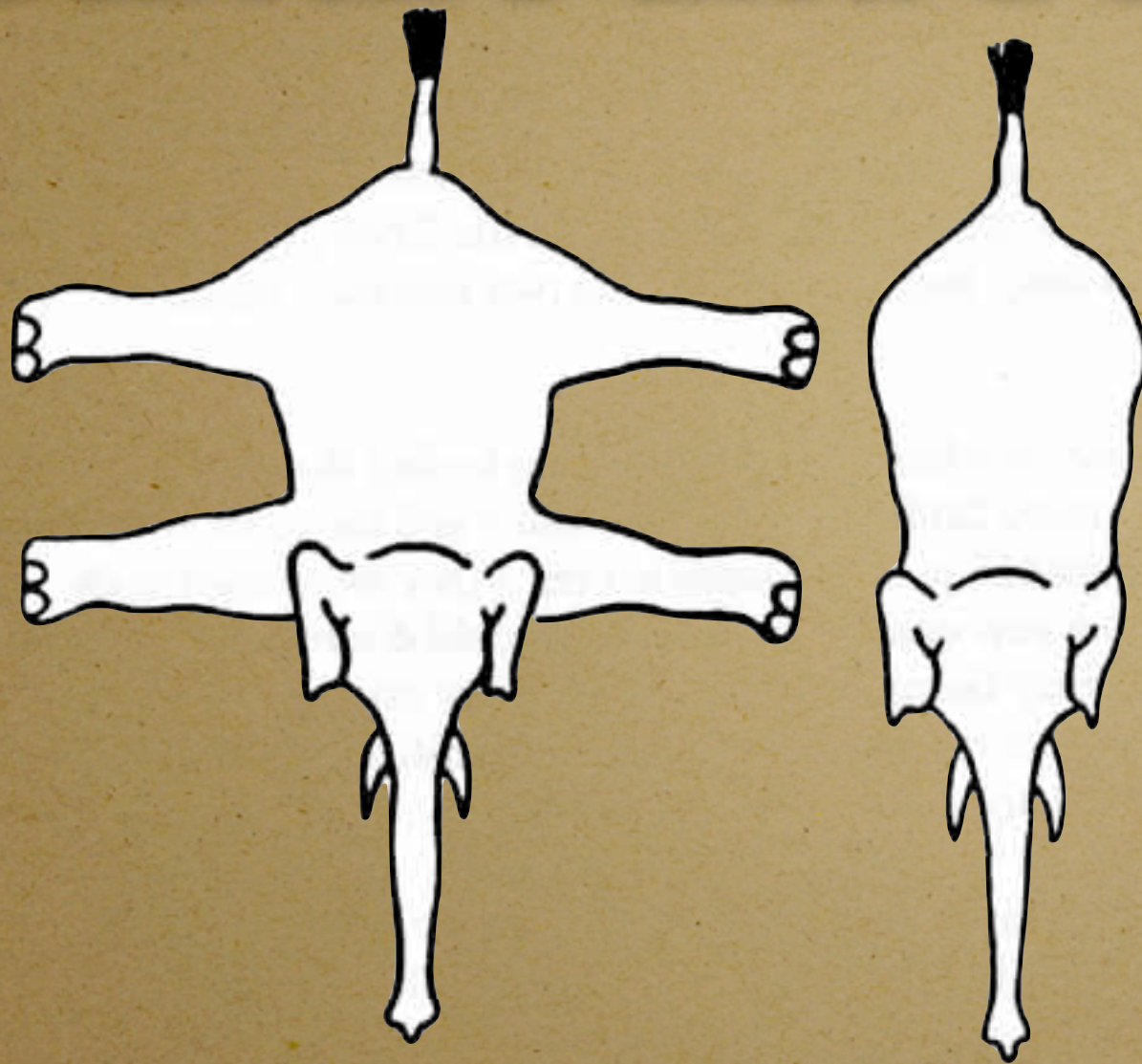
Motivation and perceptual set



- For instance, a knitter might notice yarn and knitting needles.
- She might focus on ply, whether the yarn is wool, mohair, alpaca, cashmere...
- If someone is knitting, she might look closely at the pattern being created...

She could also be better than average at perceiving yarn. She might perceive how it's twisted, whether it's consistent in texture and thickness...

Culture and Perceptual Set



Which figure
looks more
“right” to you?

Deregowski
(1972)

Most Africans have been found to prefer the drawing on the left to the one on the right. The Western/European preference for perspective drawings like the one on the right appears to be learnt.

PRIOR EXPERIENCE AND PERCEPTUAL SET

- **Our education or training equips us with various perceptual sets that enhance our performance.**



**For instance, I am good at picking out errors
when proofreading. In choosing which
sense data to focus on, I have long, bitter
experience.**

effect/affect

loose/lose

a lot

separate

embarrassment

there/they're/their

**where/
wear/were**



In the same way, a policeman or policewoman might become particularly skilled at noticing and perceiving the salient features of a crime scene, a getaway car or a criminal.

PRIOR EXPERIENCE AND PERCEPTUAL SET

- What experiences have you had that might influence how you perceive the visual world?
- Consider for instance your experience of art, sport, visual landscapes, photography, etc.



Painting by John Glover



Painting by John Wilson

Motivation and Perceptual Set

Hungry college students were found to be more likely to perceive ambiguous pictures as being food (Bruner and Goodman, 1947)

Poor children estimated the size of coins as larger than children from higher income families.
(Bruner and Goodman, 1947)



This one is really sad:

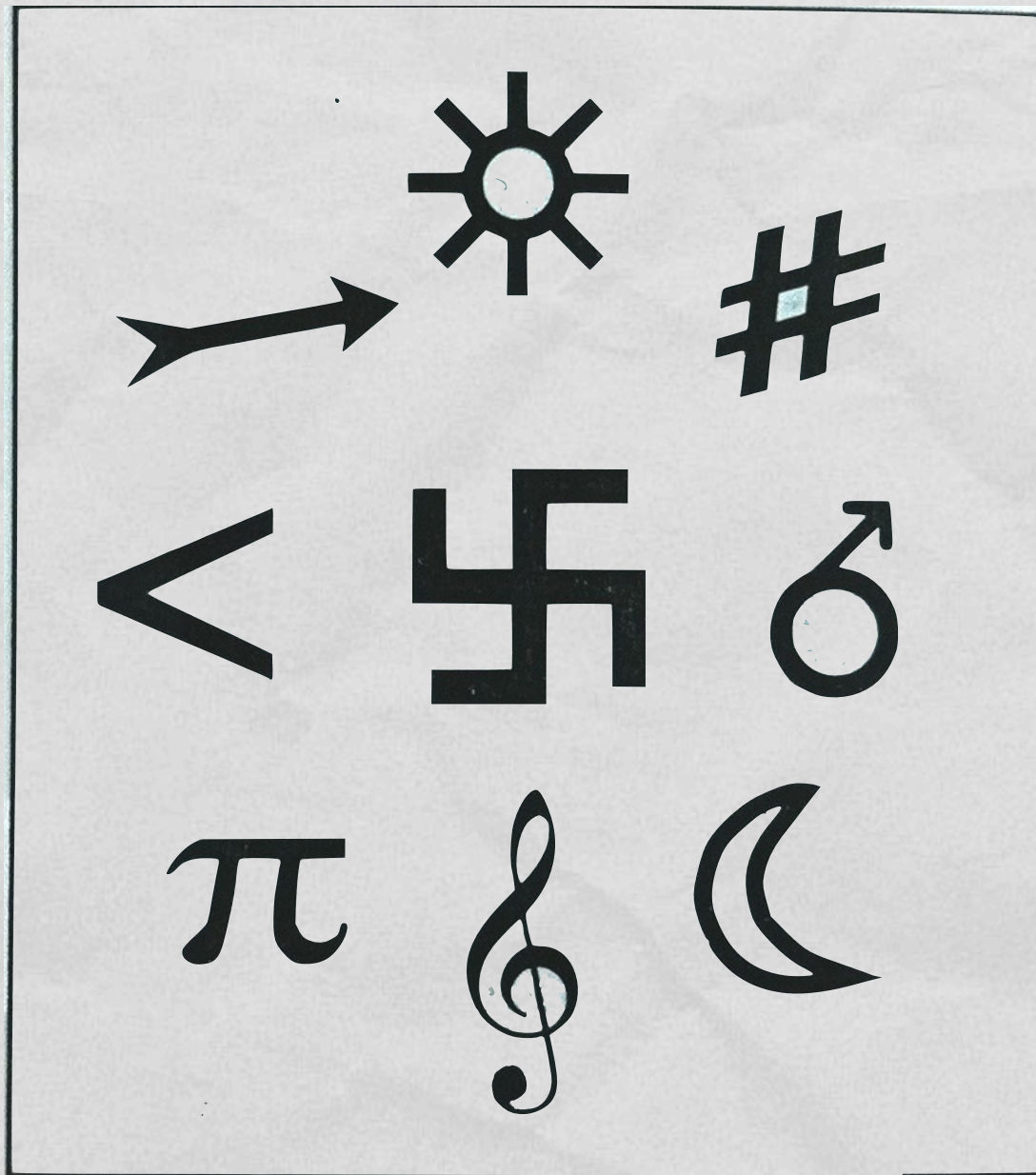
Sexually aroused males perceived females as being more attractive.

(Eysenck, Mog, May, Richards and Matthews, 1991)

Context and perceptual set



This famous visual stimulus illustrates the power of context in the development of a perceptual set. The middle figure is perceived as either “13” or “B”, depending on which set of figures it is viewed with.



An emotion-provoking stimulus can shift a person's attention away from other stimuli. Members of a Jewish organisation had impaired perception of the symbols on the edge if a distressing or emotionally charged symbol, such as the swastika, was shown on a screen at the same time.

Erdelyi & Appelbaum 1973

**Perceptions are not simple,
objective reflections of external
reality. They are subjective.**

Perceptual hypothesis:

- An initial guess regarding how to organise and interpret a stimulus pattern
- An educated guess about what form could be responsible for a pattern of sensory stimulation.

The subjectivity of seeing...

The perceptual hypotheses we form are affected by the perceptual sets that influence our ways of responding to visual stimuli.

Given the same visual sensory data, one person's perceptual sets may lead him to formulate a specific perceptual hypothesis, while the other person's sets may lead her to quite different perceptual assumptions.

Perceptual hypothesising...

This process is particularly evident when the visual sensory data permit several possible hypotheses; for instance, when the figure being viewed is ambiguous, unclear or open to varying interpretations.



For example, a melee at the footy...

He fell on
top of the
Hawthorn guy...

The
Hawthorn guy
pulled him
down...

Person 1

Person 2

Look, he's
crushing him,
the mongrel!

That
Hawthorn thug
is choking
him...

**What psychological factors might influence
these opposing perceptual hypotheses?**



Q4 – OUTCOME:

Describing psychological factors in perceptual set:

- Describe a visual experience familiar to you or a friend/family member. Point out how this person's perception of a particular stimulus might vary from the norm.

Comment on the possible factors that might have led to this enhanced perception of a set of stimuli, e.g. motivation, prior experience.

Show how the visual perception might differ from another's because of this perceptual set.

- **Describe a visual experience familiar to you or a friend/family member. Point out how this person's perception of a particular stimulus might vary from the norm.**

Ms Green's mother, Joy Green, for instance, developed an **enhanced visual perception** for sheep checking. She could perceive problems with sheep that were not evident to Ms Green, even when the two were staring at the same visual sensory data.



For instance, she was able to notice sickly looking sheep in a large flock and always saw them before her daughter did. Her perception was **faster**, more **accurate** and **more precise** in this visual task.



Comment on the possible factors that might have led to this enhanced perception of a set of stimuli, e.g. motivation, prior experience.



Joy had spent her whole childhood and adulthood on a sheep farm. She had therefore had a great deal of **prior experience** and knew what kind of **visual stimuli** were meaningful and worth noticing...



For example, she would look for or pay attention to a sheep separating itself from the flock, a sheep with a particular way of walking or a certain discoloration of the wool, etc. Consequently she brought useful **perceptual sets** to her task.

Comment on the possible factors that might have led to this enhanced perception of a set of stimuli, e.g. motivation, prior experience.



Simply put, she knew what to look for and she could formulate **accurate perceptual hypotheses** from limited sensory data.

Comment on the possible factors that might have led to this enhanced perception of a set of stimuli, e.g. motivation, prior experience.



Joy's **motivation** was also influential. She hated to think of an animal suffering, so she was always particularly focused as she and her daughter drove around the sheep.

Show how the visual perception might differ from another's because of this perceptual set.

This prior experience and motivation allowed Joy to develop accurate **perceptual hypotheses**. With relatively limited **visual sensory data**, she could quickly identify fly-blown sheep, weak animals and mothers about to give birth.



Show how the visual perception might differ from another's because of this perceptual set.

She paid **attention** to the **vital visual sensory information**, which allowed her to locate the sheep that needed her help swiftly and easily. Although her daughter looked at the same flock from the same car, she almost never saw a problem sheep before Joy did.

