

WHAT IS VISUAL PERCEPTION?

Visual perception is the ability to interpret the surrounding environment using light in the visible spectrum reflected by the objects in the environment. This is different from visual acuity, which refers to how clearly a person sees (for example "20/20 vision"). A person can have problems with visual perceptual processing even if they have 20/20 vision.

The resulting perception is also known as visual perception, **eyesight**, **sight**, or **vision** (adjectival form: *visual*, *optical*, or *ocular*). The various physiological components involved in vision are referred to collectively as the visual system, and are the focus of much research in linguistics, psychology, cognitive science, neuroscience, and molecular biology, collectively referred to as vision science.

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THREE FACTORS ASSOCIATED WITH VISUAL PERCEPTION

1. Psychological factors

Physiological factors involve the ways in which our eyes, nervous system and brain process visual information. It also involves mental processes such as our past experiences, socio-cultural background, memory, thinking, language, motivations, emotions.

Examples:

- Mouse keyboard movement (affects choice of which controls operate which actions of the system)
- Time taken to move to a target on screen.
- Careful arrangement of menu-items so that frequent choices are placed first

2. Perceptual set: Readiness to perceive something in accordance with what we expect it to be. Our expectations of what an object or event will be make us more likely to interpret the object or event in the predetermined way.

Things that influence perceptual set?

context, motivation, emotional state, culture and past experience.

• Context:

refers to the setting or environment in which a perception is made. When organising and interpreting visual information, we take account of the setting and pay more attention to those aspects of the setting that are immediately relevant.

• Motivation:

refers to processes within us which activate behavior that is directed towards achieving a particular goal.

• Emotional State: .

can also influence the way in which we perceive visual information. Different emotions can 'set' us to perceive information in a particular way which is consistent with the emotion being experienced

• Past Experience:

refers to our personal experiences throughout our lives. This includes everything we learn through experience, both intentionally and unintentionally.

- Culture:

refers to the way of life of a particular community or group that sets it apart from other communities and groups.

3. Cognition

The processes by which we become acquainted with things, how we gain knowledge.

Involves understanding, remembering, reasoning, attending, awareness, acquiring skills, creating new ideas.

The HCI objective is to understand the interaction between humans and computers in terms of how knowledge is transmitted between the two. Cognitive psychology underpins this understanding.