

General:

Pervasive - we know what it is to be conscious if only from our experience of sleep; we know our own conscious experiences; it is personal, subjective experience.

Linton's diary study is an example of conscious recall of memories

Müller-Lyer illusion relies on us being consciously aware of the line lengths

Semantic & episodic memories are said to be declarative because 'they are consciously accessible and can be described in words'

Contemporary study of consciousness brings together insights from *cognitive, biological (neuroscience) & philosophical perspectives*.

Thinking about Consciousness:

It's tied closely to our experience of 'now', but we have to rely on our memories of conscious experiences to be able to reflect on it

You can't understand consciousness simply by listing what you are conscious of!

Sapir & Whorf suggest the nature of language determines the thoughts we can have => language may determine our conscious experiences.

Consciousness is the 'raw' feel or experience of being aware or our relationship with the environment - e.g. 'what it is like' to taste/smell fresh coffee.

Illustrations:

1. Somnambulism - Ken Parkes killed in his sleep but was acquitted of murder as 'he was not acting voluntarily with the requisite intent'. **There appears therefore to be a moral dimension to consciousness** - imp. implications for society - e.g. animal experiments?

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2. Visual Neglect - **Marshall & Halligan** and the case of PS. Damage to parietal lobe caused rhs unilateral neglect - did not know why she favoured houses that were not on fire over houses that were on fire on the rhs - was not consciously aware of the difference. **Not a visual problem** - **Bisiach & Luzzatti** asked patients to describe their journey across a Piazza del Duomo in Milan - only rhs buildings described regardless of end of the square they started from. **Sensory material is processed but does not enter consciousness.**

3. Blindsight - **Weiskrantz** and the case of DB. Scotoma resulted from operation. Could 'see' lights and was able to predict above chance when one flashed in the area of the Scotoma - **even though DB insisted he was guessing**. Research by **Stoerig & Conway** confirm:

- i) Blindsight patients can access visual information in the Scotoma, but less efficiently than the normally sighted
- ii) They do not typically believe they are seeing - they believe they are guessing

Shows that certain aspects of the visual world are not available to consciousness but may be available to other processes.

4. Post-traumatic amnesia - **Damasio** - the case of DT's head injury.

- i) Woke agitated, confused, no sense of who he was & why he was on the ground
- ii) Sense of identity started to return; announced he wanted to jog (original intention before injury)
- iii) Normal sense of self returned in the ambulance

Non consciousness -> Automatism -> Aware of environment, not self -> Full consciousness

Shows that more than one level of consciousness exists and that they are qualitatively distinct.

Four Different Kinds of Consciousness - Block & Young

Access Consciousness - Involves access to information from different mental processes, including verbal reports. Conscious perception is a kind of access consciousness.

Monitoring Consciousness - Conscious experience that happens when you reflect on your own actions & thoughts. e.g. unwrapping a sweet involves this - **Reason's** diary study of errors - failures of monitoring consciousness. Also seen in anosognosia - the inability to recognise one's own illness (**Damasio**, case of DJ, lhs paralysis).

Self-Consciousness - The concept of self in the past, present & future - autobiographical. Asomatognosia is the inability to recognise you have a body (**Damasio**, case of LB)

Phenomenal Consciousness - 'Raw Feel' or experience. **Nagel** - if an organism is conscious there must be something 'that it is like' to be that organism.

This framework shows that:

Descriptions of consciousness dominated by descriptions of objects we are conscious of = Access Consciousness

Experience or feeling = Phenomenal Consciousness

Somnambulism = absence of access & self consciousness

Visual Neglect / Blindsight = absence of phenomenal consciousness but some access consciousness

Amnesia - appears to be a stage where everything except self-consciousness is present.

<p>Explaining Consciousness:</p> <p><u>Cognitive Perspective</u> - Baar's Global Workspace theory</p> <p>Efficient, domain specific, competing input processors (non-conscious) write to a global workspace of limited capacity, serial in nature. Broadcasts information to specialised receiving processors that are efficient and receive in parallel, but only act on information relevant to their function.</p> <p>His model has components described in terms of:</p> <ul style="list-style-type: none"> i) Computational inefficiency (e.g. long division in head is difficult => small global workspace) ii) Wide range of possible contents in workspace (we can bring anything into consciousness) iii) Consciousness is consistent (unlike the processors - it makes a decision e.g. Necker cube) iv) Consciousness is serial in nature <p>A unifying theory for concepts such as activation, novelty & non-conscious processes.</p> <p><u>Explains:</u></p> <p>Access Consciousness - occurs when things appear on the global workspace</p> <p>Monitoring Consciousness - similar - specialised processors to guide actions broadcast to the global workspace</p> <p>Self-Consciousness is perhaps explained by further refinements to the model.</p>	<p><u>Biological Perspective</u> - Damasio</p> <p>Three distinct kinds of 'self' explain consciousness:</p> <ul style="list-style-type: none"> i) Proto-self - gives us a sense of stability, despite changes in our appearance over time with ageing - we are the same entity. It is a collection of brain representations derived from somatosensory mechanisms - the physical structure of the organism. Body has homeostasis mechanisms. The pre-cursor to consciousness, but is not available to it. ii) (Core Self) - Consciousness - arises from the relationship between two kinds of neural pattern - those that represent the organism and those that represent the outside world. Transient. iii) Autobiographical Self - extended consciousness - arises from the long term storage of the contents of core consciousness. Enables thoughts about objects we recall in the 'here and now' and in broader contexts. <p><u>Explains:</u> Why objects in the environment dominate consciousness.</p> <p>Self-consciousness, monitoring consciousness & access consciousness from brain representations - but does not cover phenomenal consciousness as it does not explain how 'raw' feeling can arise from them. Damasio suggests it 'emerges', but is aware of the argument's weaknesses.</p> <p>Amnesia, anosognosia & asomatognosia are explained as disorders of the autobiographical self.</p>	<p><u>Philosophical Perspectives</u></p> <p>Tries to address the hard question of phenomenal consciousness - i.e. qualia - individual feelings & experiences.</p> <p>Descartes - how do you explain the relationship between a conscious mind and a physical body? (I think therefore I am thought experiment)</p> <p>Searle - our conscious states are inner, qualitative and subjective.</p> <p>Dennett says PC does not exist, as if we believe language determines the nature of consciousness then that language may mislead us into thinking PC exists!</p> <p>Jackson's colour TV thought experiment - does having colour after being able to describe the world in b&w add anything to what an individual already knows? Yes = PC exists; No = PC does not exist</p> <p>Chalmers - all physical things have PC - a fundamental feature of the physical universe. Zombie thought experiment illustrates this. If you accept Ken Parkes was without PC, the logical consequence is that consciousness does not arise as a result of the brain & its physical state.</p> <p>McGinn - Mysterianism - it is outside the realm of science to explain PC - in the same way cats don't understand the cause of their behaviours, PC may just be too big for humans to understand.</p>
<p>Thought Experiments</p> <p>Intended to stimulate & question our own thinking - 'is it conceivable that' type questions. A good experiment should teach us something, regardless of our conclusion. Examples:</p> <p>Tye - super-blindsight => both normal & blindsight individual have the same consciousness</p>	<p>Descartes - 'I think therefore I am' => he could doubt his own body & senses, but not that he was thinking, therefore, whatever the mind is, its physical basis is immaterial.</p> <p>Jackson - colour TV introduced to a b&w observer</p> <p>Chalmers - Zombie - consciousness is product of physical composition.</p>	<p>CONCLUSIONS - The Mystery of Consciousness</p> <p>Baar & Damasio provide explanations at different levels of analysis for access, monitoring & (perhaps) self consciousness.</p> <p>Can a single theory be expected to describe all kinds of consciousness - and is PC explicable in scientific terms at all?</p>