

WellBeing International®

# Animal Sentience: A Fundamental “Invisibility”?

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# Outline

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- **Terminological Issues – Sentience, Consciousness, Feeling**
- **Animal Pain, Distress & Suffering – a Schematic**
- **Consciousness & Sentience**
- **Phylogenetic Distribution – Mammals, Birds, Fish, Invertebrates, Unicellular Organisms, Plants**
- **Implications**



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# Pain, Distress & Suffering

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- Dictionary definitions are circular
- “Stress” commonly used to refer to the “stressor” not the experience
- Commentaries frequently refer to organic versus psychological pain
  - Organic pain mediated via specialized neurons - nociceptors
- Differences between Distress & Suffering
  - Eric Cassell talks of “suffering” occurring when one’s **personhood** is threatened
  - Requires sense of self in time and space



# Cassell on Pain & Suffering - 1

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- **Extracts from paper given at a SCAW Conference (June, 1988)**
  - “Relief of pain and suffering has been the warrant for medicine since antiquity.”
  - An understanding of “these two phenomena which are central to all of medicine continue to elude us. That fact is interesting in itself. ... Pain continues to pose difficulties for scientific research.”
  - “The anatomy and the physiology of nociception have, for the most part, been well worked out.” Important to distinguish the nociception system from the response.
  - Suffering is experienced by persons and not objects: pain and suffering are frequently equated but can have pain without suffering and vice-versa.



# Cassell on Pain & Suffering - 2

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- **Suffering – involves a lost of “intactness” as persons**
  - Self-reflection not required for suffering – merely a sense of self.
  - Do animals have a sense of themselves in time – have some notion of themselves as containing past, present and future meanings?
  - Per Cassell, to suffer – it is necessary to have a sense of oneself as a whole being.
  - “evidence all around us that supports the belief that animals have purposes, that they have concepts of past, future and themselves and that they are able to assign meaning and value to events.”
  - “Nothing that I have said necessitates that animals have rights, that they should not be used in research, as food ... Those are entirely separate (albeit important) questions...it is our humanity, not theirs, that demands that we treat them better.”



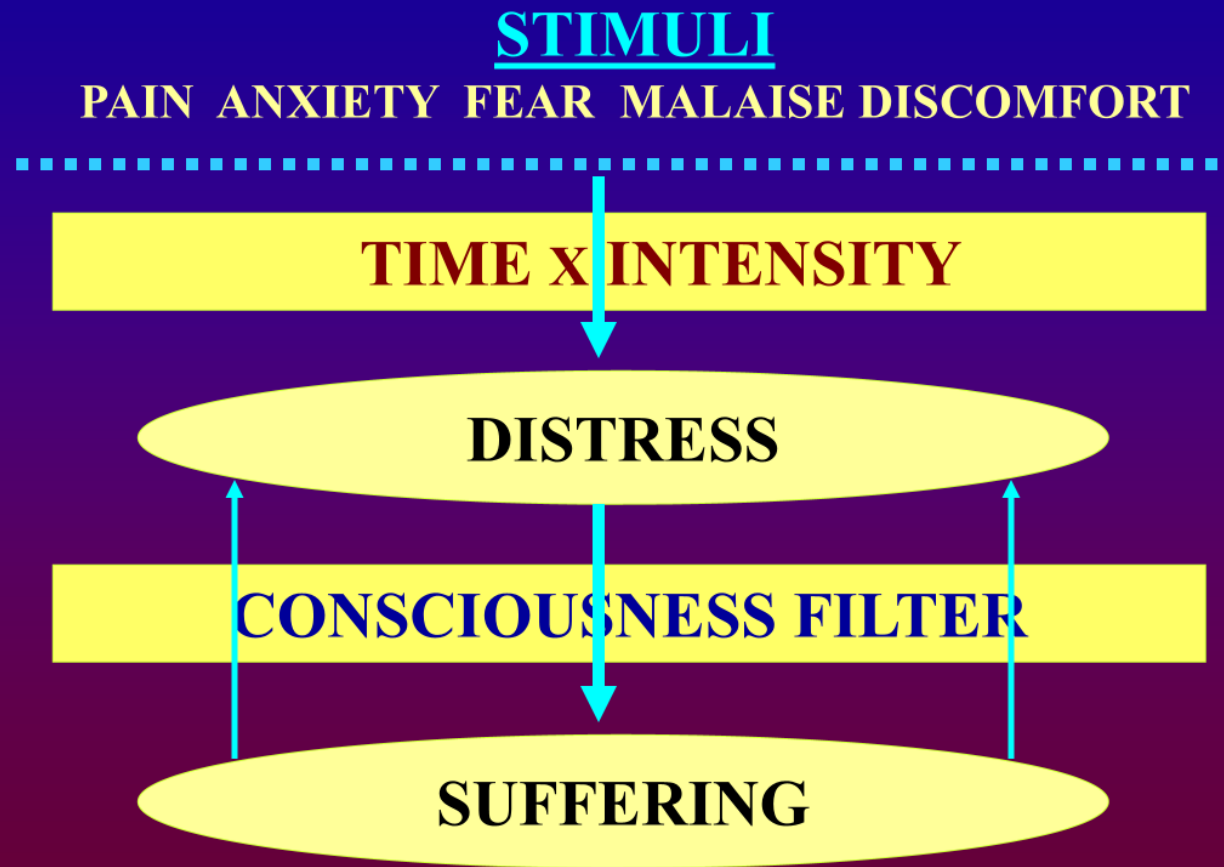
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# Schematic to Discriminate Stimuli from Feelings







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# Chalmers – Easy & Hard Problems of Consciousness - 1

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- **“Easy” problems are those that appear to be directly susceptible to the standard methods of cognitive science.**
- **E.g. differences between wakefulness & sleep, the deliberate control of behavior, the ability to discriminate, categorize and react to environmental stimuli (explainable in terms of computational or neural mechanisms). NOTE: “Easy” is a relative qualifier!**



# Chalmers – Easy & Hard Problems of Consciousness - 2

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- “Hard” problem – explaining “Experience” – “something it is like” to be a particular organism”
- E.G. – the “felt” quality of redness, the quality of depth in a visual field, the sound of a clarinet, the smell of mothballs, internal mental images, felt emotions, pains and pleasures.
- Widely agreed that experience arises from a physical substrate – but we have no good explanation of why and how it arises. Why do we have a rich inner life?



# Chalmers – Easy & Hard Problems of Consciousness - 3

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- Recommends using “consciousness” to refer to the hard problem of experience and “awareness” to refer to the “easy” problems (e.g. waking state vs. sleep, etc)
- The ambiguity of “consciousness” often leads to scientists and philosophers talking past one another – and to considerable confusion. (Papers claiming a resolution to the Hard problem tend to be Bait and Switch productions.)
- Where cognitive science is successful, it is usually explaining the performance of functions (e.g. how do we learn, remember?)

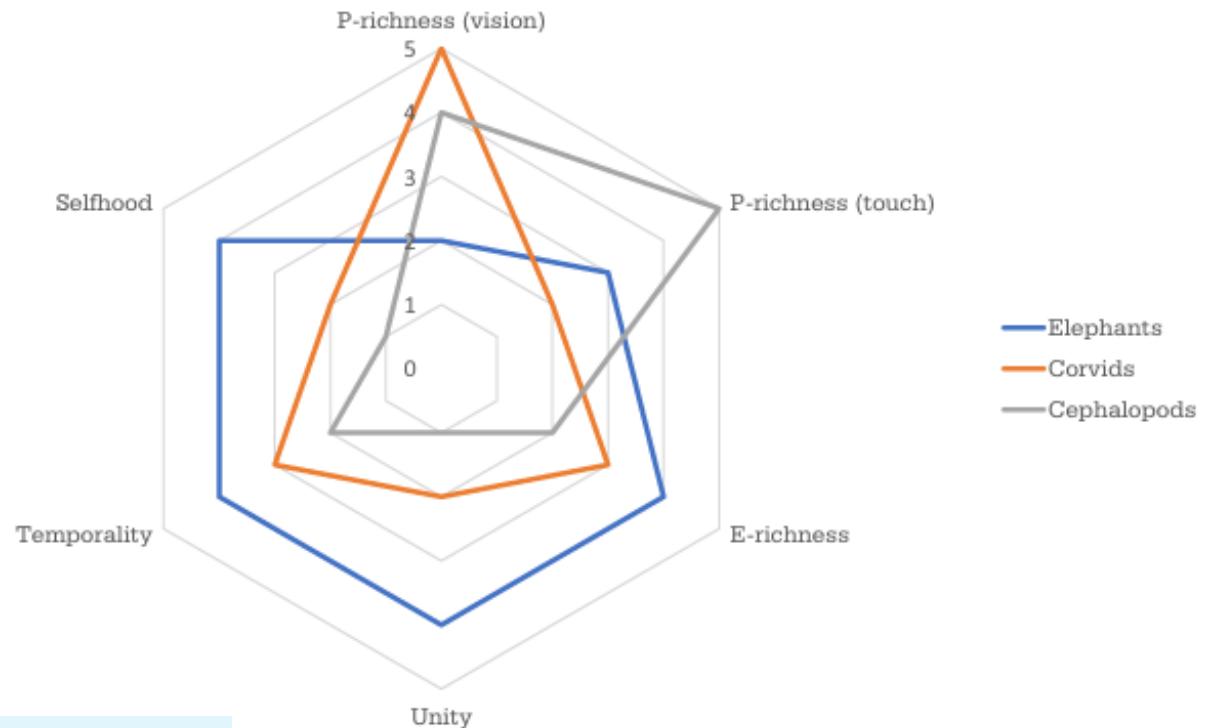


# 5 Dimensions of Consciousness

- **P-richness (perceptual)** e.g. vision, touch, smell – disentangle conscious & unconscious perception – e.g. blindsight!
- **E-richness (evaluative)** – experiences feel good or bad – valenced items
- **Unified** – do not have two or more subjects inside single person (normally) – birds have split brains & octopus (9 brains?)
- **Temporality** – integrate over time – color-phi
- **Selfhood** – distinguish self from outside world – mirror test
- **Challenging areas to investigate**

## Key Figure

Hypothetical Consciousness Profiles for Elephants, Corvids, and Cephalopods





# Blindsight – Separating Function from Experience?

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- There are people whose primary visual cortex has been destroyed who report that they cannot “see” anything but are able to navigate around objects successfully and guess the shapes they are being shown with 90% accuracy.
- Yet, they swear they cannot see anything.
- Challenge for consciousness researchers



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# Distribution of Sentience

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- **Mammals and Birds widely viewed as sentient.**
- **Less consensus re reptiles, amphibians & fish.**
- **Birch et al report arguing that cephalopods and decapod crustaceans are sentient.**
- **Growing support for insect sentience**
- **But not for plant sentience**





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# IMPLICATIONS

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- **National & Local Governments commenting on animals being sentient**
  - EU, Australian Capital Territory, Tanzania
- **Sentience Act in the UK**
- **Limited outcomes in courts so far**



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- **Consisted**



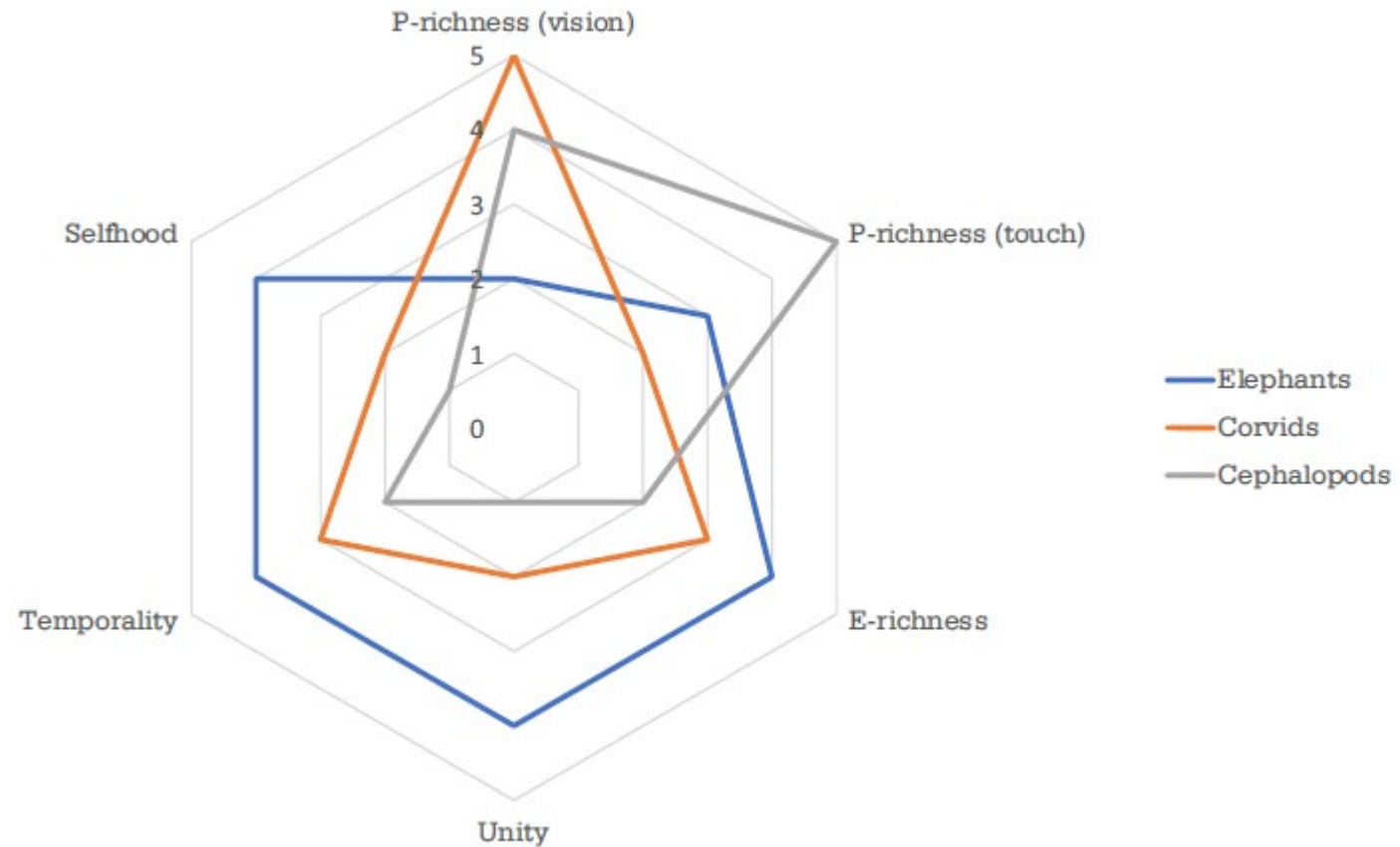
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- Num



# Possible Consciousness Profiles

- Multidimensional components of consciousness?
- No levels



Trends in Cognitive Sciences



# Possible model to discriminate pain, distress & suffering

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- Num



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- Num



**STIMULI**  
**PAIN ANXIETY FEAR MALAISE DISCOMFORT**

**TIME x INTENSITY**

**DISTRESS**

**CONSCIOUSNESS FILTER**

**SUFFERING**

