

Near-Death Experiences

Consciousness and Reality



Robert G. Mays, BSc
Suzanne B. Mays, AA, CMP

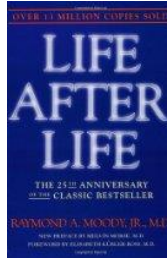
www.selfconsciousmind.com

youtu.be/NaNXTo5tZxM

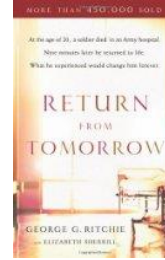
Background & Outline



Raymond Moody, *Life After Life*



George Ritchie, *Return from Tomorrow*



- Archetypal phenomenon
- Mind is a separate entity
- NDErs cross a threshold



*Journal of
Near-Death Studies*

- **Part 1: NDEs: the Mind-Entity Hypothesis** ←

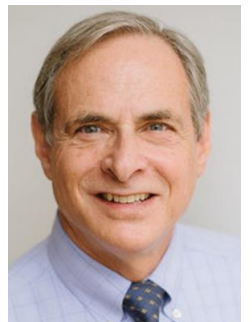
- **Part 2: NDEs and Mind-Brain Consciousness**

- **Part 3: NDEs and the Nature of the Transcendent Reality**

- Mays, R. G., & Mays, S. B. (2008). The phenomenology of the self-conscious mind. *Journal of Near-Death Studies*, 27(1), 5-45.
- Moody, Jr., R. A. (1975). *Life after life*. Covington, GA: Mockingbird Books.
- Ritchie, G. G., & Sherrill, E. (1978). *Return from tomorrow*. Waco, TX: Chosen Books.



Peter Fenwick



Bruce Greyson

What are Near-Death Experiences?

- Definition
- Striking elements of NDEs
 - Feeling peace and freedom from pain
 - Feeling separated from the physical body
 - Being aware of things going on elsewhere – veridical perceptions
 - Seeing deceased relatives or spiritual beings
 - Encountering a mystical presence or a brilliant light
 - Seeing scenes from one's past come to one (life review)
 - Entering some other heavenly or unearthly world – one's True Home
 - Choosing to return or being told to return to the body
- NDE scale (Greyson): measures number of elements, intensity of the elements (Greyson, 1983)
- “Near-death” is a misnomer
 - NDEs occur under many different antecedent physical conditions (e.g., sleep, meditation, fainting, alcohol use, etc.—as well as cardiac arrest and coma) (Charland-Verville, et al., 2014)
 - Regardless of prior conditions: the NDE elements & intensity are indistinguishable
 - Implies: a common proximate cause for *all* NDEs (Mays & Mays, 2015)

- Charland-Verville, V., Jourdan, J.-P., Thonnard, M., Ledoux, D., Donneau, A.-F., Quertemont, E., & Laureys, S. (2014). Near-death experiences in non-life-threatening events and coma of different etiologies. *Frontiers in Human Neuroscience*, 8(203).
- Greyson, B. (1983). The Near-Death Experience Scale: Construction, reliability, and validity. *Journal of Nervous and Mental Disease*, 171, 369–375.
- Mays, R. G., & Mays, S. B. (2015). Explaining Near-Death Experiences: Physical or Non-physical Causation? *Journal of Near-Death Studies*, 33(3), 125–149.

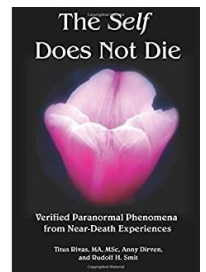


Hieronymus Bosch
Ascent of the Blessed c. 1510

NDE Phenomenology



- Sense of separation from the physical body – “out-of-body experience”
 - All cognitive faculties remain—self-conscious awareness, perception, thought, volition, memory, feelings
 - Lucid thoughts, hyperreal perceptions
 - Veridical perceptions of physical surroundings outside normal physical sight
 - Ability to move easily through solid walls, move large distances instantly
 - Prior knowledge & memories preserved, new episodic memories are vivid and unchanging
- Numerous aftereffects, loss of fear of death, most significant event of their life
- Evidence of the objective reality of the separate mind-entity: “apparitional” NDEs
 - 7 verified cases in *The Self Does Not Die*



The Self Does Not Die

- Mays, R. G., & Mays, S. B. (2008). The phenomenology of the self-conscious mind. *Journal of Near-Death Studies*, 27(1), 5–45.
- Rivas, T., Dirven, A., and Smit, R. (2016). *The self does not die: Verified paranormal phenomena from near-death experiences*. Durham, NC: International Association for Near-Death Studies.

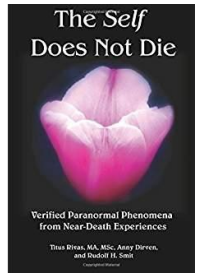
Can NDEs be Studied Scientifically?

- **Yes: NDEs have consistent, well-defined characteristic elements and qualities**
 - Vivid and hyperreal
 - Remembered as real, not imagined; the memory is indelible
 - Common proximate cause – separation of consciousness from the body
 - NDErs receive accurate, veridical information – both from the physical and transmaterial realm
- Taken individually, NDEs appear “subjective” – merely anecdotes
- Considered collectively, they appear as consistent observations of a common, *objective* reality
 - At 4%–5% of worldwide population, more than 330 million people have experienced an NDE (Knoblauch, et al., 2001).
 - Given the high prevalence and the common, objective nature of NDEr observations, *NDEs are empirical facts in the world*
- Therefore, taking NDEr accounts as objectively real is justified; they provide valid data for scientific study

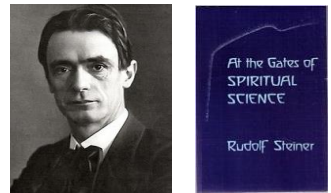
Scientific Methodology

Primary sources are NDE accounts

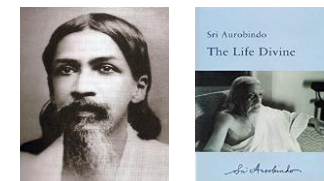
- Standards are needed: Which data to consider? Who is a reliable source? How can the accounts be validated?
 - Tibetan Buddhist philosophy: study of *extremely hidden phenomena*
 - The only method is to rely on the *first-person testimony* of people who have experienced the phenomenon. The person must be reliable, credible.
- Our criteria for using NDE data as *valid* for scientific study
 - Multiple NDE accounts of the same specific phenomenon
 - If possible, additional witnesses to the phenomenon
 - If possible, corroboration by a credible third party of information received in the NDE



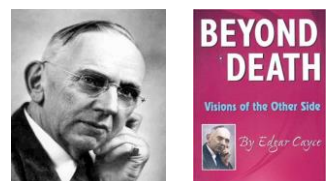
The Self Does Not Die



Rudolf Steiner (1861–1925)



Sri Aurobindo (1872–1950)

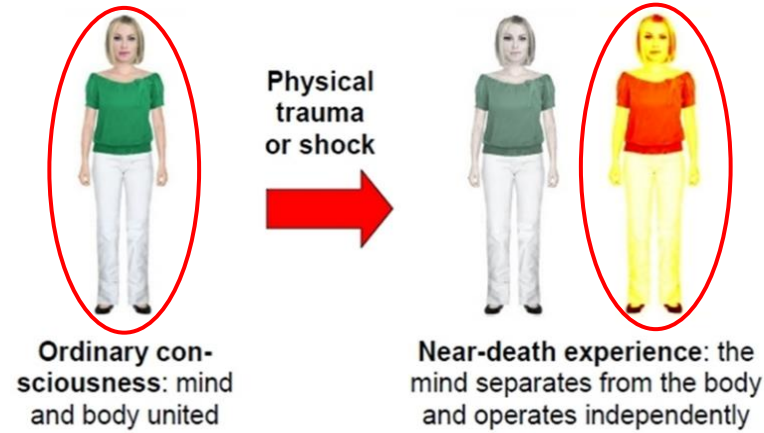


Edgar Cayce (1877–1945)

Secondary sources come from initiates/seers

- Examples: Rudolf Steiner, Sri Aurobindo, Edgar Cayce

The Mind-Entity Hypothesis



- The mind-entity is a separate entity from the physical body
 - The *seat of consciousness* of the person
 - All mental functions & capacities are in the mind
- Out-of-body state: the mind operates *independently* of the brain and body
 - Especially clear in cases of cardiac arrest, coma, and deep anesthesia
 - Hyperreal perceptions, vivid & indelible memory formation, instant response to volition
 - Interacts directly, energetically with light, sound, physical matter – to produce awareness
- In-body state: the mind is *united* and coextensive with brain and body
 - Interacts through neural activity in the brain – to produce awareness in the mind
 - In this state, the mind is dependent on brain activity

Physical Interactions with the NDEr's Body

- **How does the nonmaterial mind-entity interact with the brain?** (Mays & Mays, 2008, pp. 32-34)
 - Note: *nonmaterial* but not necessarily *nonphysical*
- **Interactions with physical light, sound waves and solid surfaces**
- **Interactions with solid objects**
 - Some NDErs report a slight resistance or change in density in passing through solid walls.
- **Interactions with another person's body during the NDE out-of-body state**
 - When a cardiac arrest patient passed her hand through doctor's arm, felt a "very rarefied gelatin" consistency, with an electric current running through it.
 - An NDEr playfully tickled another patient's nose until the latter sneezed.
 - Ability to "merge" with another person to see and hear through that person's eyes and ears or to hear the person's thoughts.

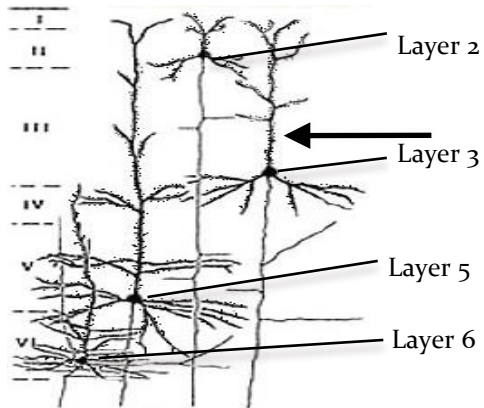
NDE Phenomena with Physical Matter: Implications

- Subtle interactions with physical forces—with light and the molecular structure of matter (e.g., air, solid surfaces, solid matter, a living body)
- NDErs easily pass through solid objects, sensing a slight resistance or a change of density
 - This implies a subtle *nonmaterial* interaction with physical matter, like passing one's hand through water
 - In turn, this implies a new physical force occurs in material-to-transmaterial interactions (Newton's third law of motion)
- NDEr interactions also imply that direct interaction with neurons is plausible
- The brain's neural activity is required for consciousness
 - There is an intimate pairing of neural activations and subjective experience, implying *direct* interaction of the mind and brain
 - At some level, the neural activations must influence the mind to produce subjective experience
 - At some level, the mind must influence neurons to fire



Mind-brain physical interactions

- Brain-to-mind: neural activity induces awareness in the mind
- Mind-to-brain: thoughts and actions induce neural activity in the brain

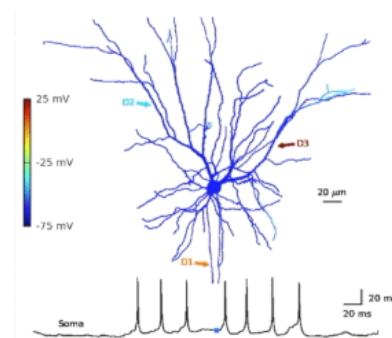


Apical dendrites in layers 2-3 and 5 pyramidal cells



Interface between the mind and brain is in the apical dendrites at the surface of the cortex (gray matter)

Brain-to-mind interface



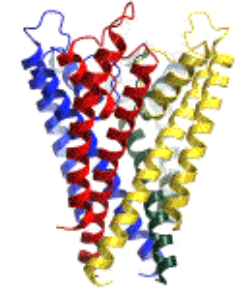
Action potentials propagate back through dendritic arbor

The neural activations are “sensed” by the mind

Mind-to-brain interface



Dendritic spines in vivo



Molecular structure of a neural ion channel

The mind triggers neural activations via ion channels in the dendrites

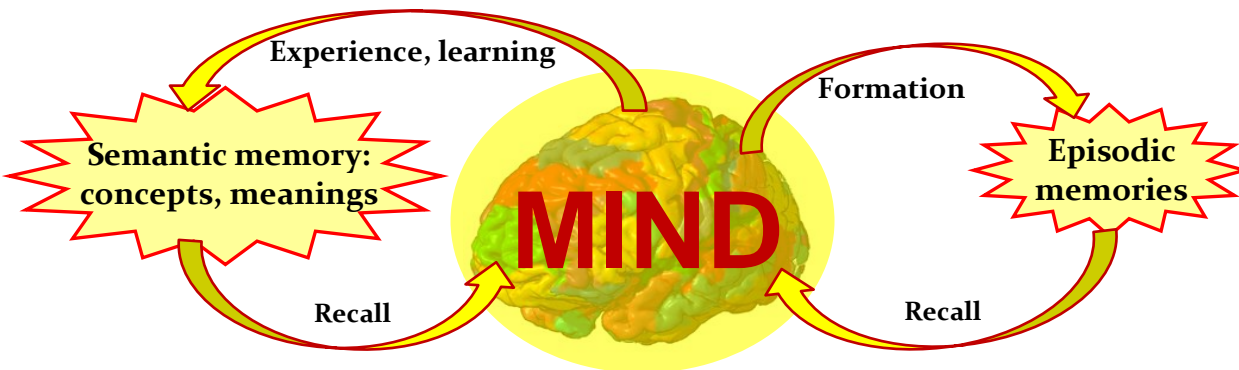
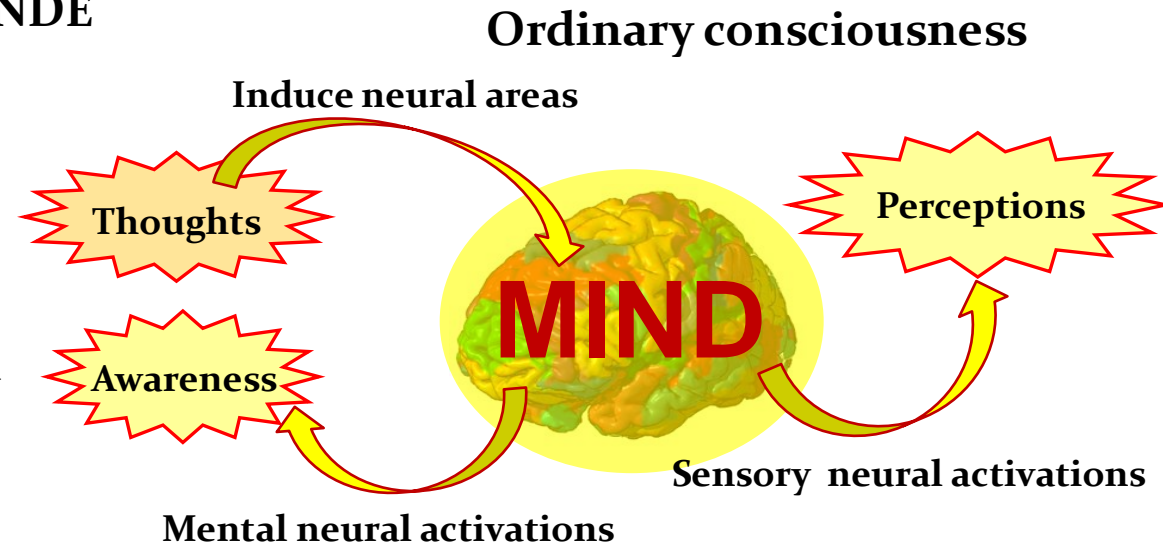
- Smith, S. L., Smith, I. T., Branco, T., & Häusser, M. (2013). Dendritic spikes enhance stimulus selectivity in cortical neurons *in vivo*. *Nature*, 503:115-120..
- Yang, G., Pan, F., & Gan, W. B. (2009). Stably maintained dendritic spines are associated with lifelong memories. *Nature*, 462(7275), 920-924.

Implied Operation of the Mind-entity with the Brain

The *mind* is an autonomous energetic entity that separates from the body in an NDE



- Perceptions begin with sensory neural activations, so the perceptions come to awareness in the mind
- Thoughts, feelings, volitional processes begin in the mind and activate neural processes, so they come to awareness



- Semantic memory is formed *in the mind* through experience and recalled through *intuition*
- Episodic memories are formed in the mind through neural processes in the hippocampus and are recalled through *intuition*

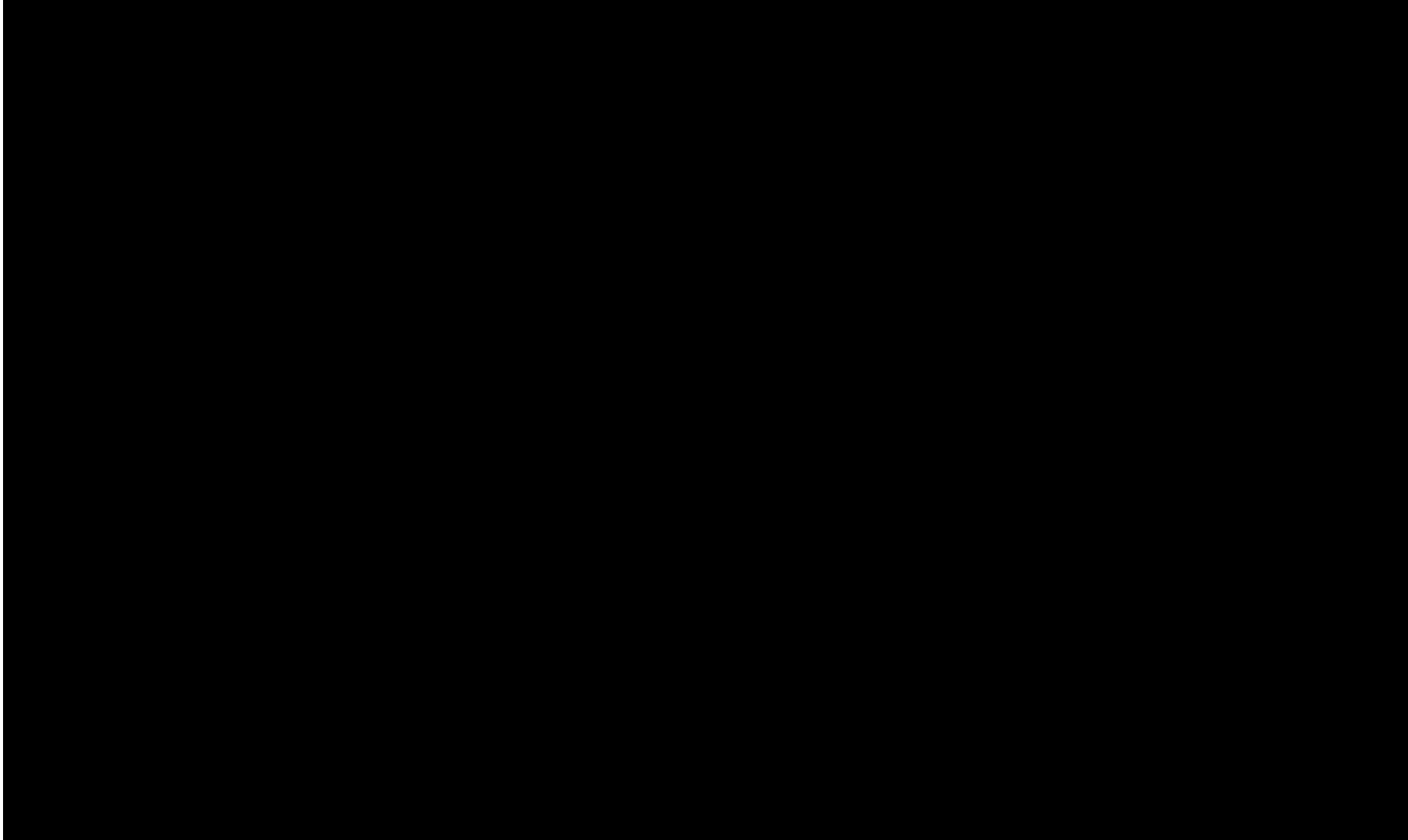
Outline

- **Part 1: NDEs: the Mind-Entity Hypothesis**
- **Part 2: NDEs and Ordinary Mind-Brain Consciousness** ←
- **Part 3: NDEs and the Nature of the Transcendent Reality**

An Experience of Visual Perception

- A short video with pairs of images and sentences
- Each visual stimulus is preceded by a white “+” for 1 second: focus your attention!
 - Each stimulus is flashed very quickly, about 50 ms
 - It’s important to pay attention
- First we present three pairs of images
 - Pause — “+” — image 1 — pause — “+” — image 2
 - Repeat
- Then we present two simple sentences: sequence of words, one per second
 - Pause — “+” — word 1 — word 2 — word 3 — word 4
 - Repeat for second sentence

An Experience of Visual Perception...50ms



Experience of Visual Perception: Two steps in recognition



Experience of Visual Perception: Two steps in recognition



The Twofold Nature of Perception

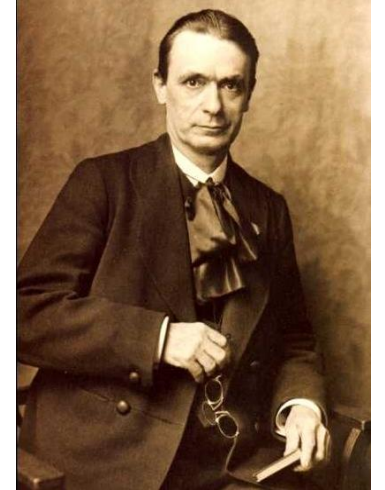
“It is due to our mental organization that the outer world is given to us, at first without its corresponding concepts.”

“Intuition adds that part of the reality—the concept—which is lacking in the percept.”

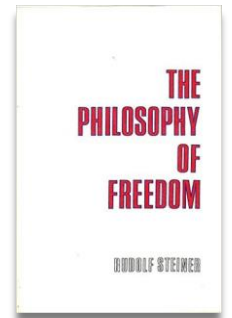
“From every real thing the relevant elements come to us from two sides, from perceiving and from thinking.”

“The moment a perception rises up on the horizon of my observation, thinking also becomes active through me. An entity within my system of thoughts, a particular intuition, a concept, joins itself to the perception.”

“The act of knowing or cognition is the synthesis of percept and concept.”



Rudolf Steiner



- Steiner, R. (1894/1964). *The Philosophy of Freedom: The basis for a modern world conception*. London, UK: Rudolf Steiner Press.

Brain Dynamics: Electroencephalography (EEG)

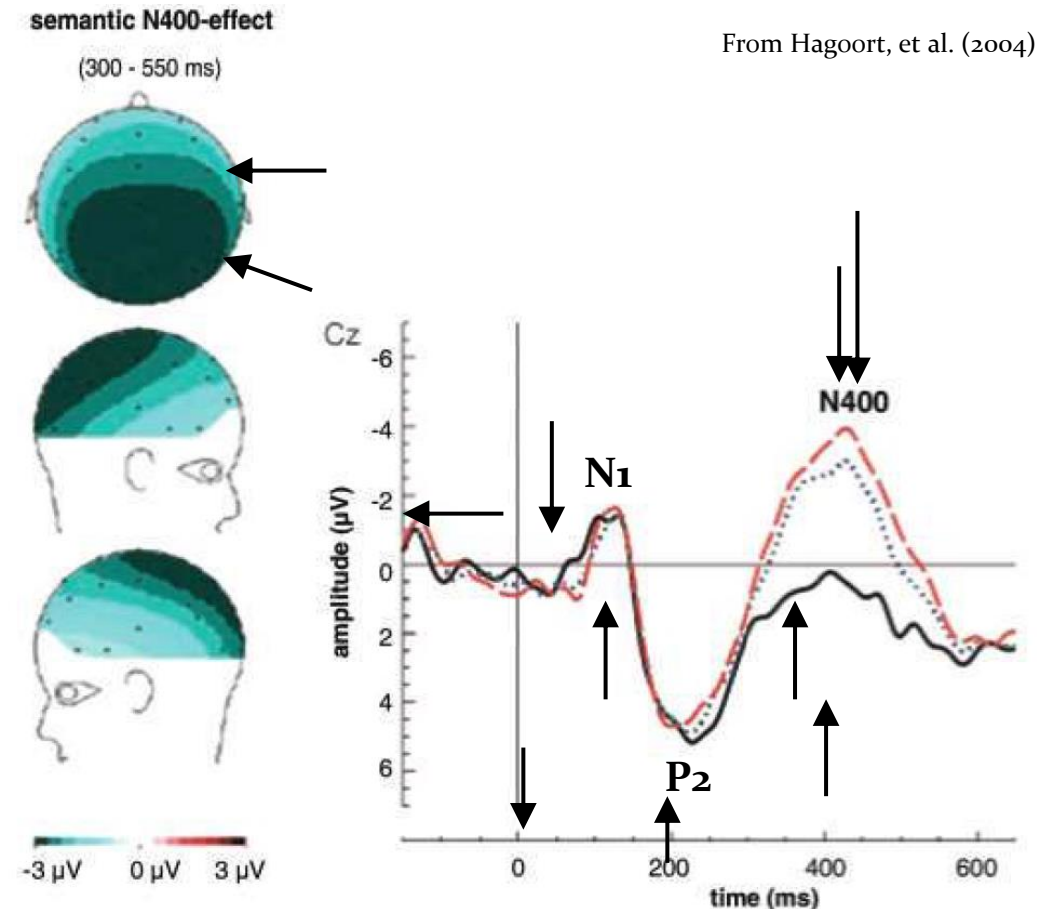
EEG example: an incongruent word in a sentence evokes a strong minus voltage at the top of the scalp.

Our interpretation:

- At 115 ms (N1): minus voltage is associated with detecting the word percept (form of the word)
- At 200 ms (P2): plus voltage is associated with detecting the meaning of the word (concept)
- At 400 ms (N400): strong minus voltage is associated with awareness of how congruent or incongruent the word is in context
 - Note: the large N400 disappears when a congruous context has been set, example: “The peanut was in love.”

Perception and comprehension appear to proceed in three distinct stages

- The mind is involved at each stage



The Dutch trains are yellow and very crowded. ←
The Dutch trains are white and very crowded. (elevated N400)
The Dutch trains are sour and very crowded. (elevated N400)

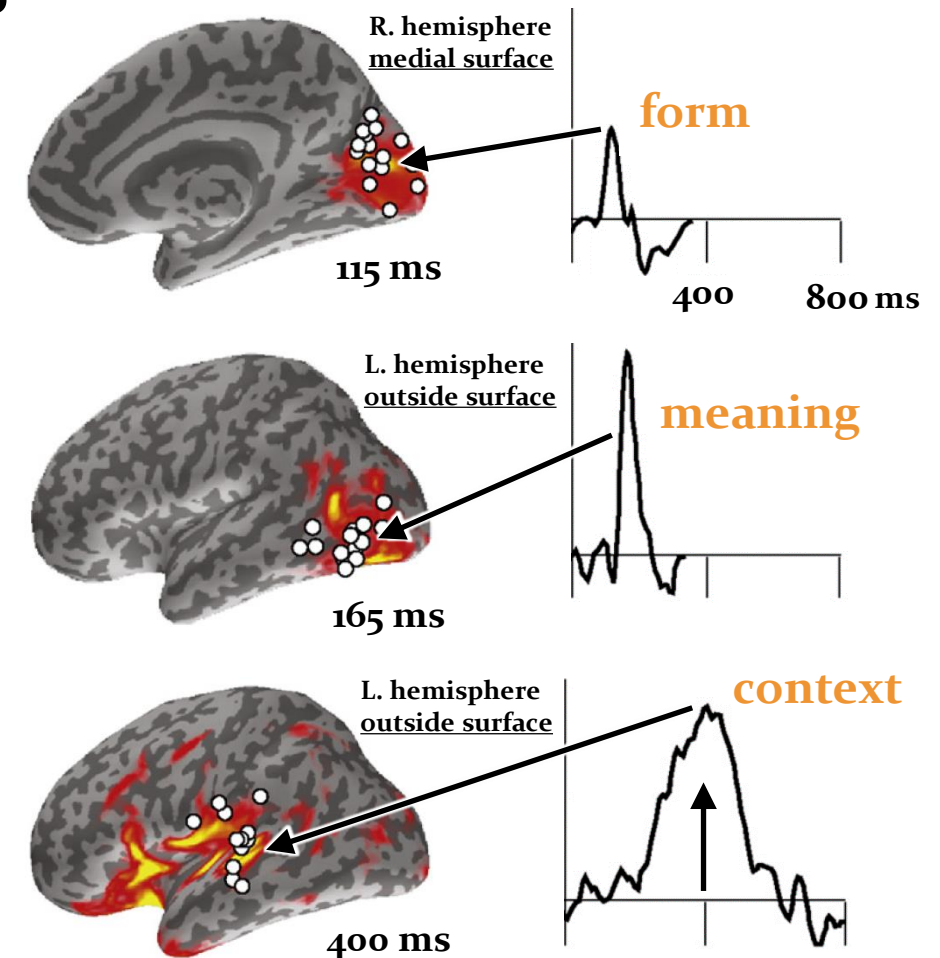
- Hagoort, P., Hald, L., Bastiaansen, M., & Petersson, K. M. (2004). Integration of word meaning and world knowledge in language comprehension. *science*, 304(5669), 438-441.
- Nieuwland, M. S., & Van Berkum, J. J. (2006). When peanuts fall in love: N400 evidence for the power of discourse. *Journal of cognitive neuroscience*, 18(7), 1098-1111.

Brain Dynamics: Magnetoencephalography (MEG)

Perception and comprehension occur in three distinct *regions* of the brain

MEG example: reading a novel word producing a large N400

1. At 115 ms: activation in medial occipital area is associated with detecting the word percept (form of the word)
2. At 165 ms: activation in occipitotemporal area is associated with detecting the meaning of the word (concept)
 - If the word is unreadable or incomprehensible, this step will take a longer time
3. At 400 ms: activation in superior temporal and prefrontal areas is associated with awareness of how the word fits in the current context
 - Each new word adds to and builds the context of the sentence



How do the mind & brain work to come to awareness?

In ordinary consciousness, subjective experience is intimately paired with brain activity

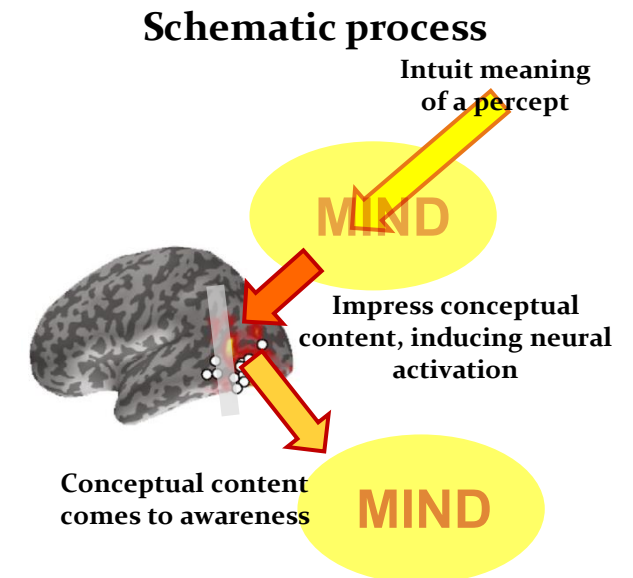
- A *minimum* intensity and duration of brain activity is needed to “come to awareness”
- Neural activity for 300–500 ms is required to achieve *awareness*—otherwise the stimulus remains unconscious
 - Before this minimum time, the stimulus is *detected* subliminally—but can still have an effect
 - Once the minimum time is reached, the stimulus *comes to awareness* and can be reported by the subject
- This minimum “time-on” applies to *all* perceptions and also *all* internal thoughts, imaginations, etc.



Benjamin Libet
(1916–2007)

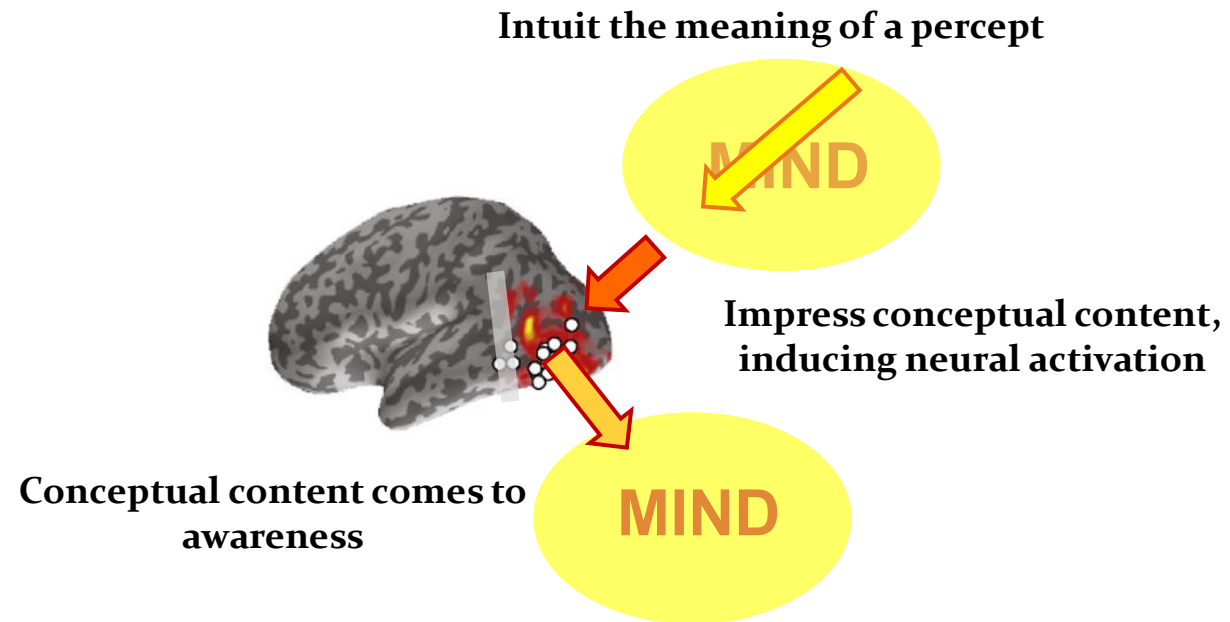
Neural activations are needed to bring *all* mental content to conscious awareness

- The mind is engaged throughout this process—from the initial detection to actually “coming to awareness”
- The mind must first *impress* its conceptual content on the appropriate brain regions
- The neural activations in those regions act like a *mirror* to raise the mind’s conceptual content to consciousness



How do the mind & brain work to come to awareness?

Schematic process

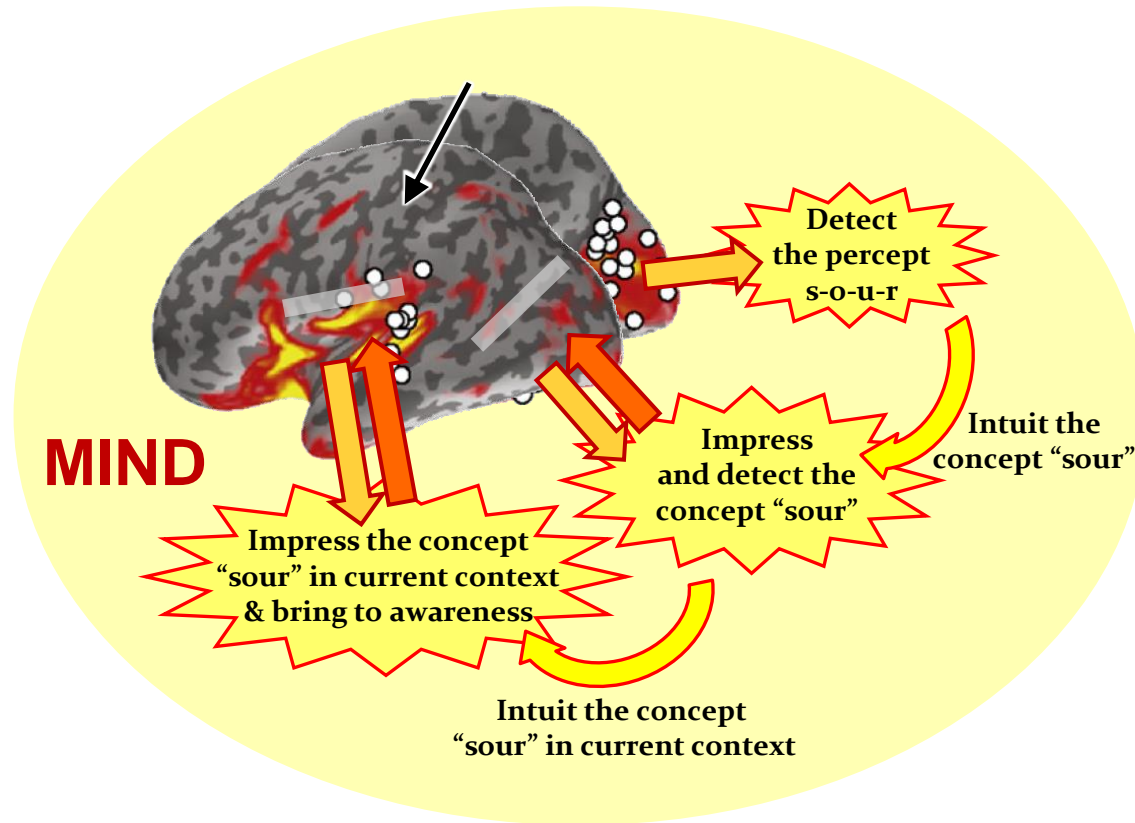


The entire process takes ~80-100 ms

How do the mind & brain work to come to awareness?

The full process of reading a word in context

The Dutch trains are sour and very crowded.



- Stage 1: detect the percept s-o-u-r (N1)
- Stage 2: detect the concept of "sour" (P2)
- Stage 3: place the concept of "sour" in context and bring to awareness (N400)

This entire process takes ~400-500 ms

Outline

- **Part 1: NDEs: the Mind-Entity Hypothesis**
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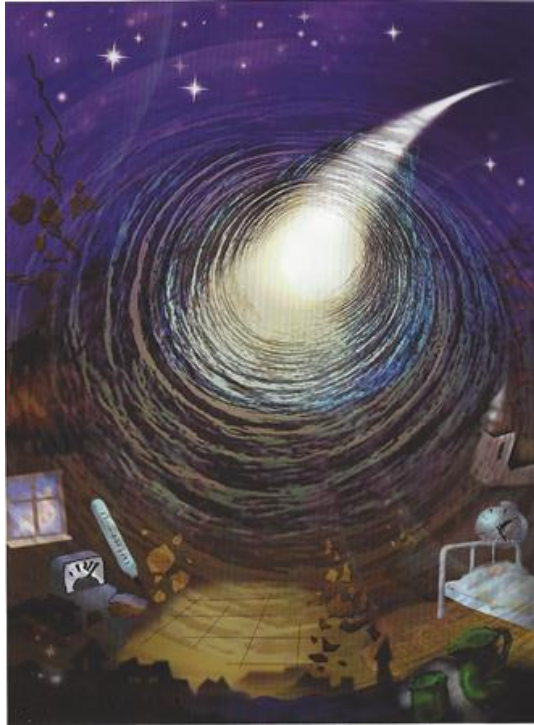
The Transcendent Realm Hypothesis

- The Transcendent Realm hypothesis states:
 - Reality consists of the physical realm *plus* a more fundamental Transcendent Realm.
 - The physical realm is coextensive with and *dependent* on the Transcendent Realm.
- “Transcendent” here implies surpassing usual limits:
 - Perceptions beyond the range of usual perception, i.e., “supersensible”
 - Free from the constraints of the material world

The Transcendent Realm Hypothesis: Evidence ...

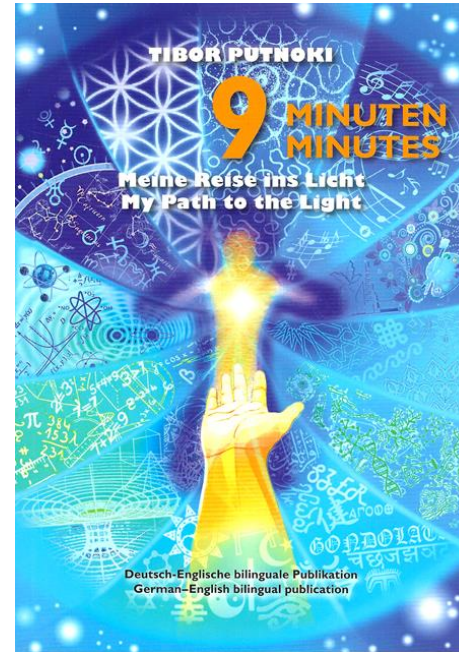
NDErs report hyperreal experiences in two *realms*:

Veridical perceptions in the physical realm



The light comes nearer and nearer.
It fills the room with its shining, warmth and light.

Perceptions in a supersensible, transmateral realm



This world beyond the threshold is beyond all imagination.
It is Light. Everything consists of light.

- Putnoki, T. (2016). *9 Minutes: My path to the Light*. Budapest, Hungary: Szeretet Fénye Köshaszú Alapítvány.

The Transcendent Realm Hypothesis: Evidence

- In both realms, NDErs report obtaining veridical information
- In both realms, NDErs report encounters with deceased persons and “spiritual” beings
- In the Transcendent Realm
 - Unconditional love and interconnectedness
 - Memories of life events and visions of the future
 - Access to limitless knowledge and wisdom
 - A sense of life purpose and meaning in life

Unusual NDEr Perceptions of Physical Reality ...

- **Researchers' terminology**
 - “Transcendental awareness,” “mindsight,” “omnidirectional awareness” (Ken Ring & Sharon Cooper, 1997; 1999)
 - “Global perception,” “360° spherical perception,” “perception by transparency” (Jean-Pierre Jourdan, 2000; 2001; 2019)
 - “Hyperdimensional perception” (Robert Brumblay, 2003)
- **NDEr accounts describe veridical perceptions of the physical realm but with greatly enhanced perceptual abilities**
 - Example from Jourdan (2011)
 - Example from Ring & Cooper (1999)

- Brumblay, R. J. (2003). Hyperdimensional Perspectives in Out-of-Body and Near-Death Experiences. *Journal of Near-Death Studies*, 21(4), 201-221.
- Jourdan, J.-P. (2000). Just an Extra Dimension ... *Les Cahiers scientifique de IANDS-France*, 1. Retrieved from <http://www.iands-france.org/SRC/PDF/justextra.pdf>.
- Jourdan, J.-P. (2001). Les Dimensions de la Conscience. *Les Cahiers scientifique de IANDS-France*, 7. Retrieved from [http://dr.jp.jourdan.pagesperso-orange.fr/Les Dimensions de la Conscience.pdf](http://dr.jp.jourdan.pagesperso-orange.fr/Les%20Dimensions%20de%20la%20Conscience.pdf)
- Jourdan, J.-P. (2019). An exploratory study of perceptual and cognitive features in near-death experiences: A proposed model and research recommendations. *Journal of Near-Death Studies*, 37(2), 65-98.
- Ring, K., & Cooper, S. (1997). Near-death and out-of-body experiences in the blind: A study of apparent eyeless vision. *Journal of Near-Death Studies*, 16(2), 101-147.
- Ring, K., & Cooper, S. (1999). *Mindsight: near-death and out-of-body experiences in the blind*. Palo Alto, CA: William James Center for Consciousness Studies.

Unusual NDEr Perceptions of Physical Reality

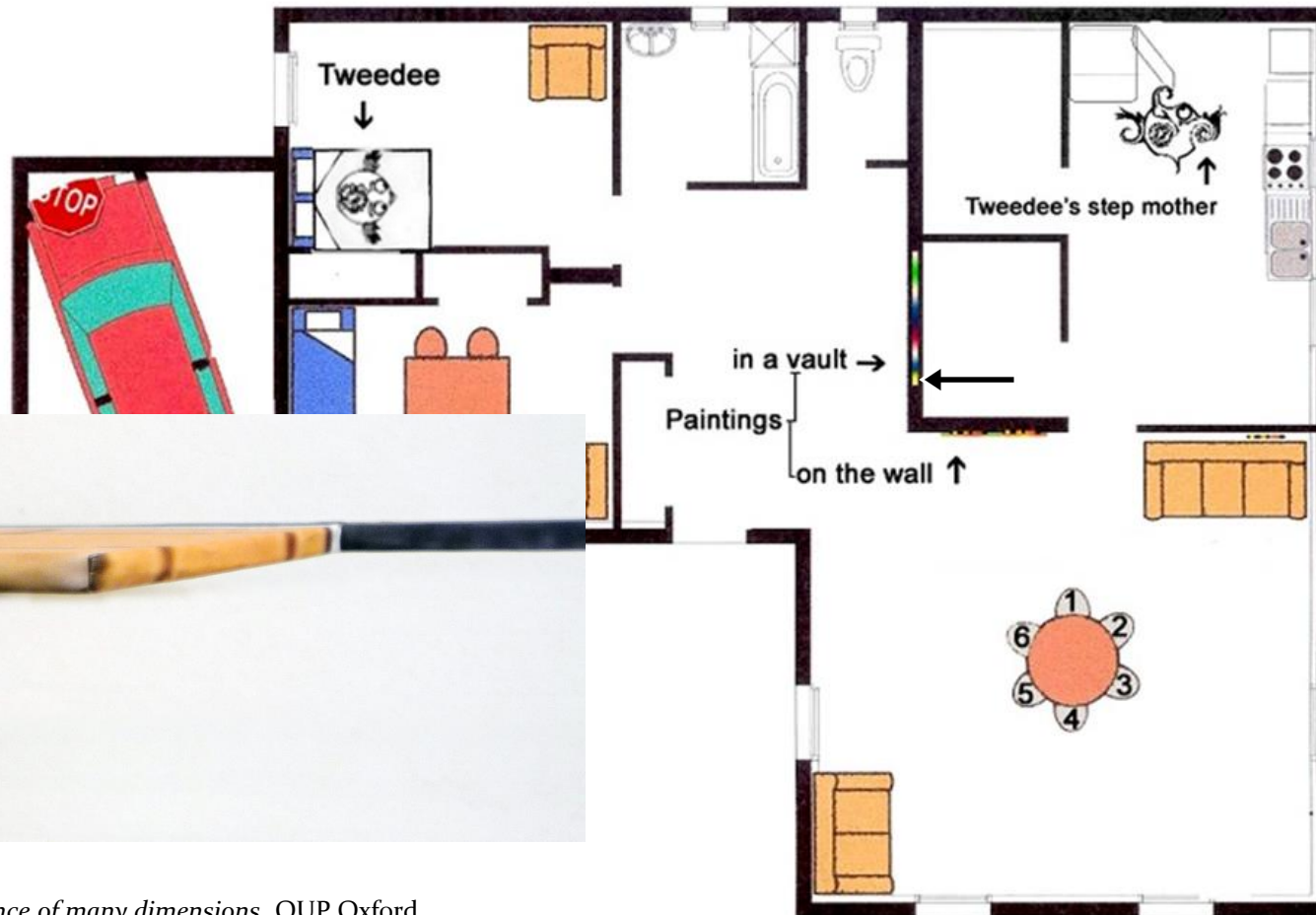
Perceptual features

- Global or 360° spherical perception
- Perception “*from everywhere*”
- Perception by transparency
- Zoom / instantaneous displacement

Understanding Unusual NDEr Perce

Flatland thought experiment -- from Jourdan, based on Edwin Abbott, 1884.

- In Flatland, 2-dimensional beings live in a flat world of just length and width –
- Everything is visible to them only *on its edge*.



(from Jourdan, 2019)

- Abbott, E. A. (2006/1884). *Flatland: A romance of many dimensions*. OUP Oxford.
- Jourdan, J.-P. (2019). An exploratory study of perceptual and cognitive features in near-death experiences: A proposed model and research recommendations. *Journal of Near-Death Studies*, 37(2), 65–98.

Understanding Unusual NDEr Perceptions

Flatland thought experiment -- from Jourdan, based on Edwin Abbott, 1884.



(from Jourdan, 2011)

- Abbott, E. A. (2006/1884). *Flatland: A romance of many dimensions*. OUP Oxford.
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A Fifth Dimension Explains a Lot

- NDEr perceptions imply a *fifth dimension* (3 space + 1 time + an extra spatial dimension)
- NDErs' experience of enhanced perceptions of physical reality
 - Global 360° perception
 - Perception from everywhere
 - Perception by transparency
 - Zoom and displacement
- NDErs' ability to move through walls and solid objects
- The out-of-body NDEr is invisible to ordinary sight
- NDEr perceptions are felt to be *hyperreal*—"realer than real"

Implications

- The fifth dimension subsumes all of physical reality
- The fifth dimension includes all of the transcendent, nonmaterial reality

NDE Phenomena Regarding Time ..

Life review phenomenon

- About one-fourth of NDErs
- Simultaneous presentation of all events generally in a 360° panorama / tableau
- In the presence of a guiding spiritual being
- Archetypal accounts
 - Dannon Brinkley's NDE
 - Anita Moorjani's NDE
 - Göran Grip's NDE

- Brinkley, D. (1994). *Saved by the Light: The true story of a man who died twice and the profound revelations he received*. New York: Harper.
- Moorjani, A. (2012). *Dying to be Me: My journey from cancer, to near death, to true healing*. New York: Hay House.
- Ring, K. (1998). *Lessons from the Light: What we can learn from the near-death experience*. Needham, MA: Moment Point Press.

NDE Phenomena Regarding Time ...

- **Every episode of one's life: focusing on one's interactions with others**
 - Displays the details of one's emotions and actions, and their effects on others
 - One is observing the event as if looking down on one's earlier self from an out-of-body position
- **Every event shown is hyperreal, with perception from "everywhere," zoom / displacement**
 - Same enhanced perception as the NDEr's out-of-body perception of the physical realm
 - Supports the idea that NDEs are objectively real events, in both realms
 - Example from Tom Sawyer's NDE life review

NDE Phenomena Regarding Time ...

Features of the life review ...

- Generally one is in the presence of a loving being
 - There is no judgment except by oneself, no condemnation
 - The loving being feels disappointment and pain from our misdeeds
- Ripple effect of one's actions to others
- Vast, intricate tapestry of human relationships and interconnectedness with everything
- One is shown how one *could have acted*, without condemnation or coercion—implying human free will
- The purpose of life is *Love*—can be expressed only in relationship to other living beings

NDE Phenomena Regarding Time ...

Life *preview* phenomenon

- Visions of one's personal future
 - Two predictions at age 10
 - A checklist of one's life
- Visions of future world events: Natural disasters, political upheavals (Kennedy assassination, the 9/11 attacks, civil conflict)
- Features of the life preview
 - The memory of a future event is frequently suppressed
 - May come back in a dream just prior to the event's occurrence
 - May be remembered only when the event occurs.
 - Predictions that fail to materialize—free-will choices of individuals may change the trajectory of the events.

NDE Phenomena Regarding Time: Implications

- Life reviews imply an exact, detailed record of all events in the physical realm
 - All actions, emotions and thoughts and their effects on other people are inscribed in a “Book of World Memory”—the “Akashic Record” or “Book of Life”
 - The record appears to be *built into the fabric of reality* in the transcendent realm—an intricate tapestry of interrelationships
 - Rudolf Steiner: “As soon as one enters the spiritual world, Time changes into Space”—snapshots placed side by side in higher-dimensional Space
- Life reviews imply free will in one’s actions: one is shown how one acted and how one *could have acted*
- The presence of guiding spiritual beings, a Being of Light and deceased relatives implies that *conscious, individuated beings* are the essential elements in the transcendent realm
- Life previews imply that future events are laid out and even “rehearsed” well in advance of actual earthly events
 - Each person has an overall life plan
 - But out of free will, one can choose differently from what was originally planned and the plan is adjusted based on one’s choices

NDE Phenomena Regarding the Meaning of Life: Implications

All the world's a stage,
And all the men and women merely players;
They have their exits and their entrances,
And one man in his time plays many parts... William Shakespeare, *As You Like It*, II.7

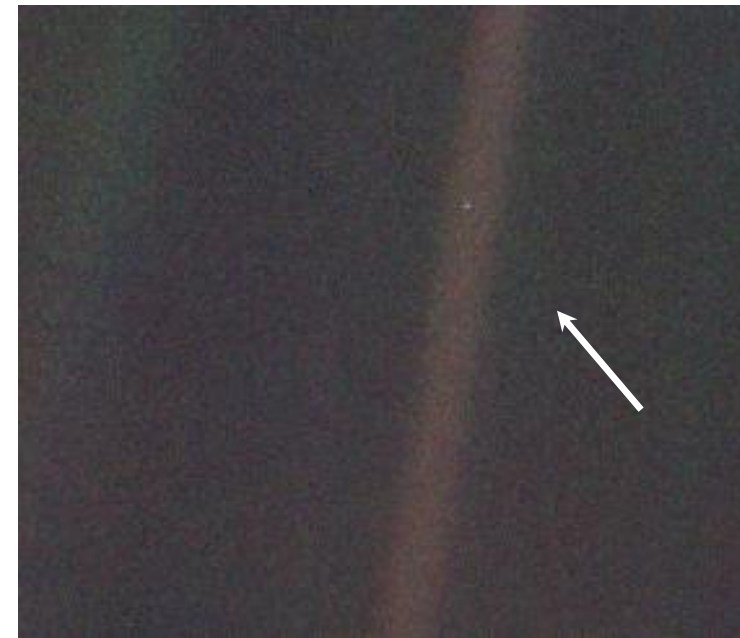
- Earthly life is not easy – Earth is the most difficult place to be incarnated
- The physical world is a school; one must go through difficult experiences to become mature; but we have chosen to undertake them
 - All that happens is for a purpose, and that purpose is already known to our eternal Self
- The meaning of life
 - We are eternal spiritual beings having an earthly incarnation
 - *We do not die* with the death of the physical body
 - There are two Life Lessons for our earthly existence
 - To learn Love through interactions with others on the Earth
 - To learn Wisdom through life experience



Rudolf Steiner

Overall Picture of the Transcendent Realm

- The common message “It’s not your time. You must return. You have more to do in your life on Earth.”
 - Implies there is a plan and purpose for one’s life: things specifically to be learned, experienced and done
 - Implies that one’s purpose was set before birth and agreed to
 - Implies there are benevolent guiding spiritual beings present throughout one’s life
- The transcendent realm can be viewed as the ground of all existence
 - The existence of the Akashic Record implies the centrality of earthly human experience
 - Carl Sagan derided “[our] delusion that we have some privileged position in the universe”
 - *On the contrary*, we are co-creators with God
- The higher purpose of earthly life
 - Individual development
 - Evolution of humanity
 - Transformation of the Earth



Earth 3.7 billion miles away
Photo Voyager 1, 1990