

The Mystery of Physical Interaction in Near-Death Experience

Implications for understanding consciousness

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A model of near-death experience relating mind and physical body

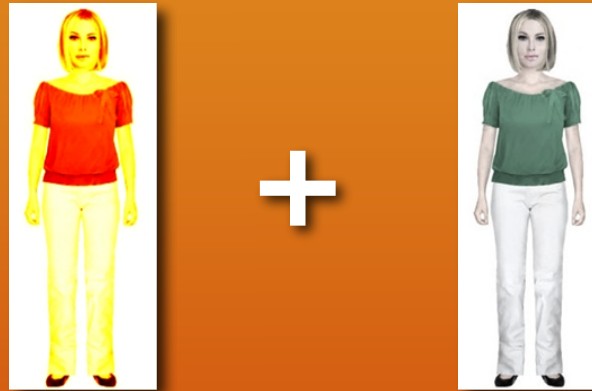


The locus of consciousness appears to separate from and operate independent of the brain

- Particular position in space and particular visual perspective
- Heightened, lucid awareness, logical thought processes, memory
- Vivid perceptions including veridical perceptions of the surroundings

A theory of the mind and brain

1. The human being consists of (1) an energetic, spatially extended, non-material “mind” that is united with (2) a material brain and body



2. The mind is non-material, like a structured energy field that interacts with physical processes, and thus has physical attributes



(Mays & Mays, 2010)

A theory of the mind and brain...

3. The mind is united with the brain and interacts directly with it, probably via electrical interactions with brain neurons



4. The mind is the seat of conscious experience, but when united with the body, it requires neural electrical activity to be conscious. As a mental agent, the mind can initiate electrical brain activity.



A theory of the mind and brain...

5. When brain structures are damaged, mental faculties dependent on them are partially or totally impaired



6. The field of the mind has an internal structure corresponding to neural structures in the brain and throughout the body. "Phantom limbs" can result.

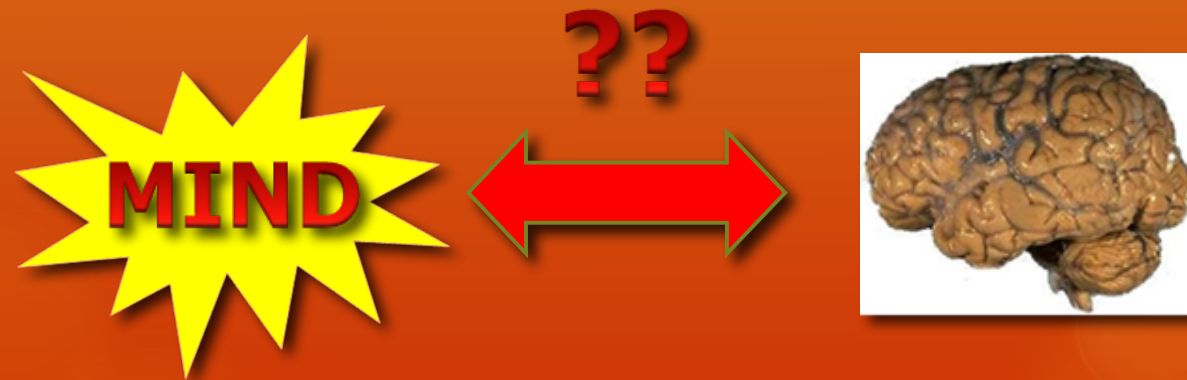


Phantom limbs appear to be fields of sensation extending beyond the body in space. They are "mind limbs".

Interactionist dualism: objections

- Our theory is an *interactionist dualist theory*: there is a non-material mind that interacts with the brain and body
- The main objection to interactionist dualism is:

HOW DOES A NON-MATERIAL MIND INTERACT WITH MATTER?



The mystery of physical interaction in NDE

- Yes, NDEr's "body" can't be seen ordinarily and passes through walls, which the NDEr generally doesn't feel
- But the NDEr's "body" does appear to interact – very subtly – with physical processes
 1. NDEr "perceives" through physical energies and processes: light, sound waves, texture of surfaces
 2. NDEr can sometimes be seen by animals and by other NDErs
 3. NDEr can "tickle" a person's nose, which is felt by the person
 4. NDEr can apparently interact with fog
 5. NDEr can "merge" with an in-body person and see and feel what that person sees and feels

(Mays & Mays, 2008a)

The NDEr “body”

- During NDE, locus of consciousness shifts from within the physical body to outside, with a localized, independent existence with a particular location and perspective
- Many NDErs experience that they have a “body”, appearing either as a physical body form or as a sphere or ovoid form (Lundahl & Widdison, 1997, p. 108; Moody, 1975, pp. 42–50)
- The NDEr “body” appears luminous, translucent or cloud-like in some way to the NDEr, that is, giving off some kind of light of its own (Serdahely, 1993, p. 88)
- In at least some NDErs, the “body” appears to have an intricate, luminous structure (Hands were “composed of light with tiny structures in them ... tubes of light up his arms.” Moody & Perry, 1988, p. 10)

1. “Perception” through physical energies and processes

- **Light:** NDEr “sight” interacts with light giving veridical perceptions with normal colors, dependent on the ambient light (Ritchie & Sherrill, 1978, p. 37).
- **Sound:** NDEr “hearing” interacts with sound vibrations from heart monitors, fluorescent lights, etc. to provide veridical auditory perceptions (Ring & Valarino, 1998, p. 63; Sabom, 1982, p. 100)
- **Solid objects or surfaces:** NDErs report –
 - feeling a slight resistance or a little change in denseness in passing through objects
 - the ability to “bob” against the surface of the ceiling or feel the support of the hospital roof
 - the ability to “touch” and feel an object or sense the texture of surfaces of objects by “touch”

References: Blackmore, 1982, p. 52; Corcoran, 1996, p. 80; Fenwick & Fenwick, 1995, p. 180; Gabbard & Twemlow, 1984, p. 158; Casebolt, personal communication, August 3, 2008.

2. “Seen” by other NDErs and by animals

- NDErs can see their own “body” and can see other out-of-body individuals during the NDE, who also have a bodily form (Eulitt & Hoyer, 2001; Gibson, 1999, p. 128; Moody & Perry, 1988, p. 173)
- Although the “body” cannot generally be seen by people, it apparently *can* be seen by animals

Jerry Casebolt recounted his NDE at age 7, where he hovered above and just out of reach of a dog on a playground, with the dog repeatedly wagging its tail, jumping up and barking at him. They looked into each other’s eyes; Jerry was moving up, down and to the sides; they moved together like a dance. (Corcoran, 1996, p. 81; Casebolt, personal communication, August 3, 2008).



3. Interaction with an in-body person which is felt

- NDEr can feel interaction with another person's physical body
 - When a cardiac arrest NDEr passed her hand through Moody's arm, she felt it had a "very rarefied gelatin" consistency, with an electric current running through it (Moody & Perry, 1988, pp. 8-9).
- NDEr interaction can be felt subtly by the other person
 - Jerry Casebolt, in an NDE as a 7-year-old, playfully tickled another patient's nose, touching her just once and she sneezed. He repeated this another two times.

(Corcoran, 1996, p. 83; Casebolt, personal communication, August 3, 2008; also Cook, Greyson, & Stevenson, 1998, p. 399).

4. Apparent interaction with fog

- A man driving outside Portland, Oregon in late October around midnight. It was foggy; he swerved on black ice on a hairpin curve and crashed into a tree, severing his arm (PMH Atwater, personal communication, March 7, 2008)
 - In his OBE, he saw that he would die if he didn't get help.
 - He sought help from a house a distance away, outside the second story window, he jumped up and down and shouted to "call the police, there's been an accident!"
 - The man inside later told the police that the fog outside his window was jumping and seemed to have the shape somewhat like that of a person.
 - The second man heard "in both ears" that there had been an accident, went outside with a flashlight and found the wrecked car.

5. “Merging” with an in-body person

- The NDEr “body” appears to “merge” with another person’s physical body
- During an NDE, a 5-year-old boy who was suffering from meningitis briefly “went into” his sister’s head and saw the world through her eyes (Morse & Perry, 1990, p. 177)
- In “merging,” the NDEr apparently can also communicate information to the person
- A 48-year-old man was despondent and attempted suicide by hanging. During his NDE OBE he desperately sought help from his wife. She could not hear his cries, so he “went into” her body and could see and hear with her eyes and ears. When he made contact with her, he heard her exclaim, “Oh, my God!” Apparently she knew what was needed, because she grabbed a knife, ran out to where her husband was hanging, and cut him down (Greyson & Bush, 1992, p. 105)

5. “Merging” with an in-body person...



During his NDE, George Rodonaia was “inside his wife's head” as she was picking out his grave and heard all of her thoughts

- She was making a mental list of eligible men to date, with their characteristics as possible future husbands
- George later repeated all these details to her, freaking her out
- This account was later confirmed by his wife, Nino

(Atwater, 1994, pp. 81-83; PMH Atwater, personal communication, March 7, 2008)

Indirect evidence of interaction from physical NDE aftereffects

- Major NDE aftereffects include, among many other things – (Atwater, 2007; Ring & Valarino, 1998/2000)

- Increased sensitivity to light, loud sounds, touch, electricity
- Interference with electronic equipment, watches, clocks, etc.
- Generating unusual electrical sparks



- These effects strongly suggest:
 - The mind's "connection" to the brain and body has changed: the mind is "looser", extends beyond the body
 - Electrical effects imply the "field of the mind" has electrical properties

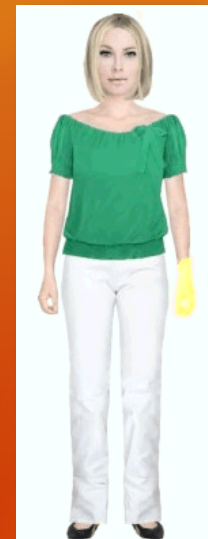
Parallels with other non-material bodies: phantom limbs

A **phantom limb** is a distinct subjective experience of an absent physical limb.

Forearm
amputation



Phantom “mind-limb”
extending beyond
the body

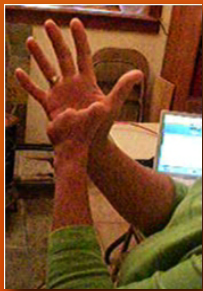


(Mays & Mays, 2008b and unpublished data, 2009)

Phantom limbs...

Observed effects: interaction of the phantom limb with another person or an object (subject M.G.)

- **“Touching”** other subjects, especially in region of the brain, evokes distinct, unusual inner visual images and subtle but definite physiological sensations (warmth, pressure, etc.) – not reported by other researchers
- **“Touching”** or being “touched” by physical objects evokes physiological sensations and physiological reactions (increased skin color, twitching of the finger buds) – not reported by other researchers
- M.G. reports “massage” of phantom fingers (therapist passing her hand over the finger area) evokes tickling sensations. Phantom fingers are felt by the massage therapist
- M.G. reports she sometimes can “see” her phantom fingers as a faint whitish or bluish light when held up against a dark background



Subject M.G.



“Touching” subject S.M.



“Touched” by object

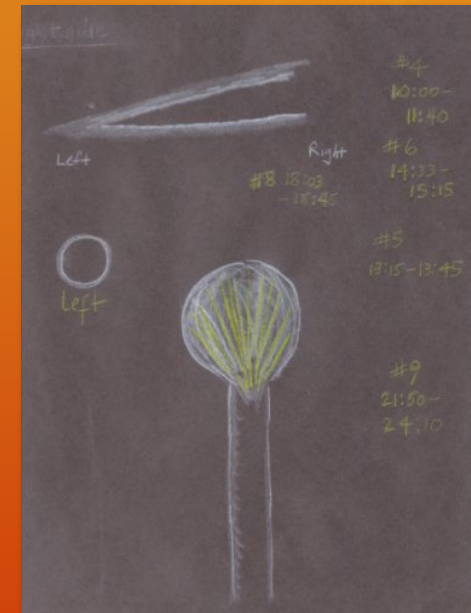


Phantom limbs...

“Touching” other subjects, especially in region of the brain,
evokes distinct, unusual inner visual images



M.G. “touching” subject S.M.
point #4
(video clip 1'27)

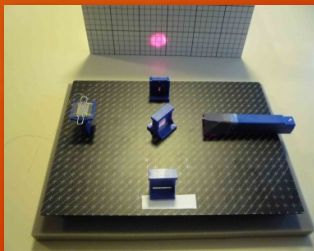


Sketch of images S.M.
experienced, including the
“sword” going from right
to left

Phantom limbs...

- **Two observations** are consistent with other reported phenomena
 - Phantom limbs are “felt” by Therapeutic Touch therapists and others and their “touch” on the limb is felt by the patient (Leskowitz, 2000 and 2001)
 - “In darkness, I have noted a faint glowing of my phantom body parts” (Brugger, Kollias, Müri, Crelier, Hepp-Reymond, & Regard, 2000)
- **No effects** were observed for
 - Interaction with interferometer laser light, a plasma globe, dry ice fog and fluorescent dyes
 - “Pushing” an object
 - Interaction with an EMF meter (electrical/magnetic fields)
 - Low light digital photography

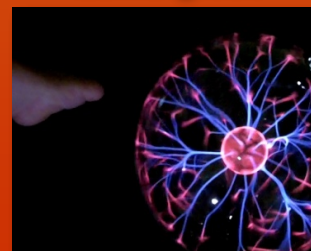
Interferometer



“Pushing” an object



Plasma globe



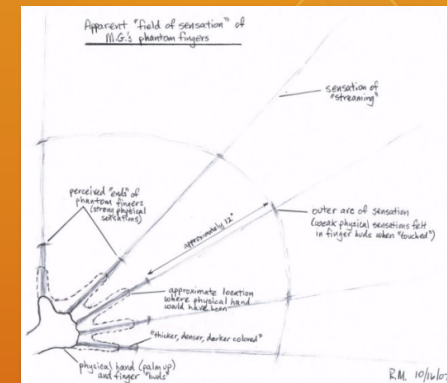
EMF meter



Phantom limbs...

- Overall, phantom limbs appear very "diffuse" and changeable

M.G.'s phantom fingers stream out from her physical hand, lower left of drawing



- Our results imply that interactions are present but are very subtle or weak
 - The best detectors are probably other living organisms
 - A photomultiplier will be needed to detect any light emissions
- Phantom limbs appear to be objectively real extensions beyond the physical body, similar to the NDE "body"

Factors in physical interaction-1

Interaction	Where	Factors involved	Possible mechanism
Physical luminosity	NDE, PL	Very faint emanations in near ultraviolet	Energetic excitation of nitrogen molecules emits UV light (at 3995 Å)
"Sensing" light	NDE	Absorption of light energy	Interaction with electromagnetic oscillations in the visible range
"Sensing" sound	NDE	Absorption of sound energy	Slight repulsion from air molecules carrying sound vibrations
Solid surfaces	NDE, PL	Subtle interaction; can't push an object	Slight repulsion from surface molecules
Penetrate solid objects	NDE, PL	Very little interaction with the objects' atoms	Slight interaction with atomic electrons gives faint sense of resistance, probably has a "diffuse" structure
Fog droplets	NDE	Vigorous "muscle" activity moves and collects droplets	Electric dipole excitation and movement in a structural form
"Sensing" and influencing neural activity	NDE, PL	Bidirectional electrical interaction with neurons (implies complementarity)	Fine-structured mechanism that can evoke neural electrical activity and "read" neural electrical activity

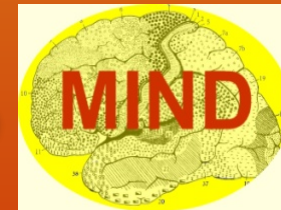
Factors in physical interaction-2

Interaction	Where	Factors involved	Possible mechanism
Static electrical aftereffects	NDE, also PL	Build up of static charges	Unusual interaction with physical body produces static charges, stops watches
No interference with laser light	PL	Interaction with light energy is slight	Relatively weak energetic interface
No measurable electromagnetic (EM) fields	PL	No or very weak EM radiation emitted	No large-scale energy changes; a balanced fine structure results in net zero fields, measured at large scale
No interaction with plasma globe	PL	No large-scale static electrical effects	Balanced fine structure results in net zero fields, measured at large scale; static charges only from physical body
No interaction with CO ₂ fog	PL	Only slight "muscle" movement was present	Dipole excitation is involved in muscle movement neuron firing
No interaction with fluorescent dyes	PL	UV light emitted is very faint or absent	Energetic excitation of nitrogen molecules emits UV light; caused by fine structures in phantom limb

Mechanism for physical interactions by a non-material mind

- Mind-brain interaction must ultimately resolve to physical processes. It must:
 1. Interact with electromagnetic (light) waves to produce perception
 2. Interact weakly with atoms (air, solid surfaces, solid objects) to produce sensations (sound, slight resistance) and emit UV light
 3. Interact readily with neurons evoking sensations in others and allow NDE merging
 4. Have a structure closely matching the finely differentiated neural structure of the brain and nervous system

The mind structure mimics brain structure



- Promising possibility: finely differentiated structures of minute oscillating electric or magnetic dipoles – first proposed by J. K. Arnette (1995 and 1999)
- This model can explain all of the apparent forms of interaction reported

Conclusions

How does the non-material mind interact with matter?



1. NDE and phantom limb phenomena strongly suggest that the field of the mind interacts with physical processes when independent of the body
2. The observed types of interaction imply that the mind is a finely-structured energetic field capable of subtle interactions with neurons
3. Neurological evidence suggests that the interaction could be via minute structures of oscillating electric or magnetic dipoles
4. Clearly, the mind is a new class of non-material field phenomenon

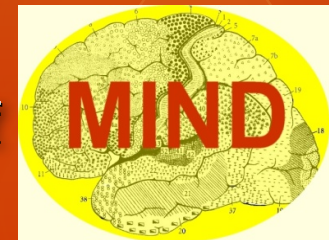
Mind is a fundamental entity

- Mind as conceived here does not fit any known physical phenomena or physical laws
- Mind must be a fundamental entity, a new dimension of reality
- The domain of “the physical” must necessarily be expanded to include minds

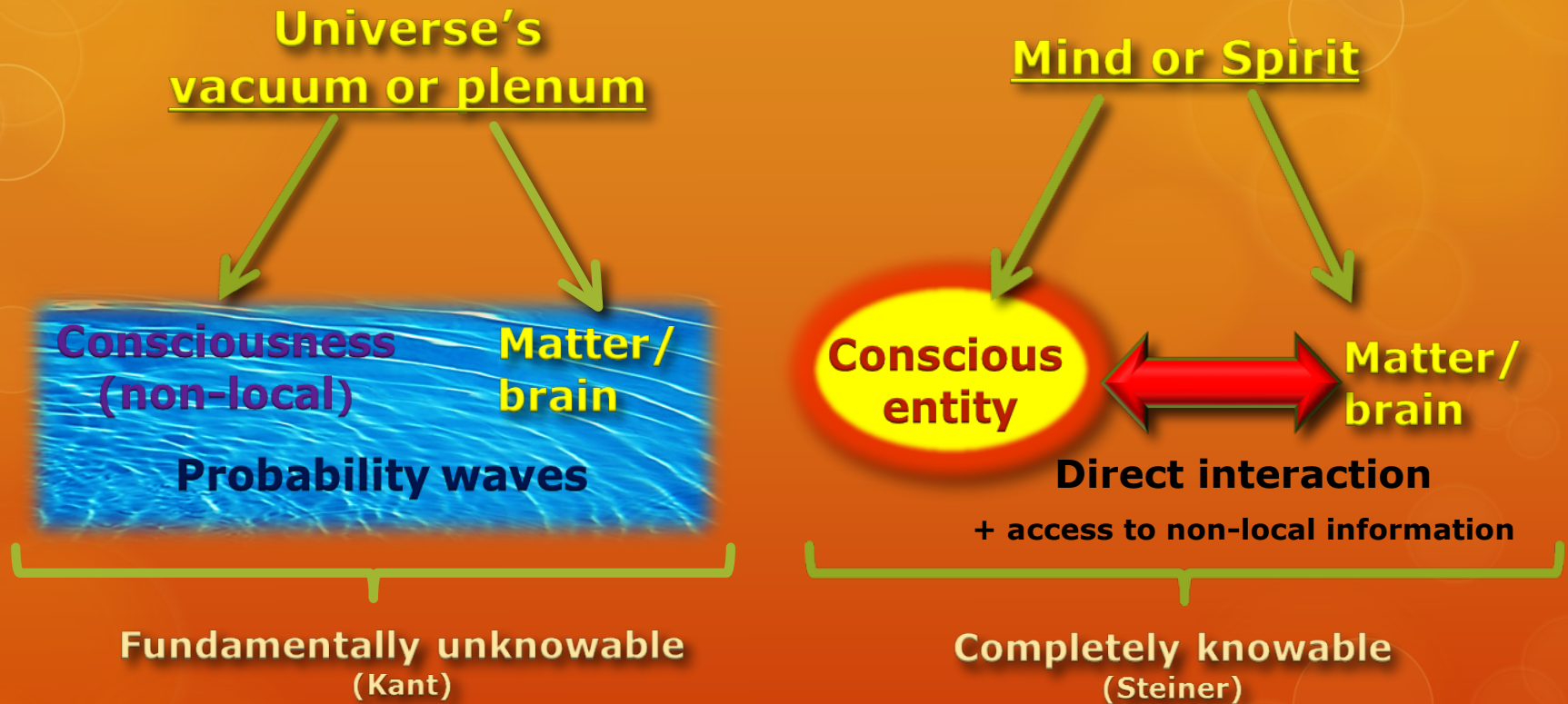


- The essential property of the mind is the conscious experience of a particular individual
- The mind is the seat of the essential selfhood of the person; it is the person

- Conscious experience arises within the mind through direct interaction of the mind with the brain



Non-local or local?



Pim van Lommel, *Consciousness beyond life*, pp. 275,278

Mays & Mays, *Self-conscious mind theory*

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