

How Consciousness is Like Las Vegas -- and Where the Real Focus Should Be

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Agenda

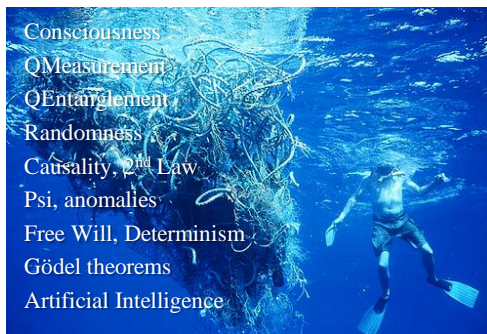
- About definitions, clarity, logic, and leaps
- About quantum physics
- About anomalies such as psi phenomena
- About more interesting phenomena
- About science and getting serious

"If a wind exists, you must turn into it to take off." -- author unknown

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Tangled Concepts



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Confusions

- Consciousness/mind/thoughts/self/soul
- Personality/memory/experiences
- Consciousness/awareness/responsiveness/
self-awareness/creativity/experience/meaning/
quantum measurement/observation
- Materialism/physicalism/reductionism
- Reality/objective/subjective/measurement
- Causality/entanglement/freewill

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How Consciousness is like Las Vegas

- It looks very different to different visitors.
- It is exciting and attractive, filled with bright lights and the promise of great rewards.
- It is strangely unsatisfying after a while, and often leaves you a bit poorer than before.
- *Whatever happens there, stays there.*

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Defining "Consciousness"

- Responsiveness - awareness (anesthesiologist)
- Cognition - reasoning, intelligence
- Memory - persistence of thoughts & stimuli
- Identity - Self, self-awareness, ego, personality
- Experience - internal feelings, "qualia"
- Mind - thoughts, attention, emotion, integration
- Soul - essence of a being, spirit, psyche (incorporeal)
- ... Vimal lists ≥ 40 definitions! (JCS 16, 5, May 2009)

SSE talks: Defined **0** Not Defined **8**

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Pessimism About Consciousness

"...physics will have to be replaced by new laws..."

"...consciousness demands a major revolution in physics..."

"...there is something very fundamental missing from current science..."

"It is not that we possess bad or imperfect theories of human awareness; we simply have no such theories at all."

"Nobody has the faintest idea what consciousness is..."

"Nobody has the slightest idea how anything material could be conscious."

-- Wigner, Penrose, Herbert, Kauffman, Fodor, etc.

"I regard the brain as a computer which will stop working when its components fail. There is no heaven or afterlife for broken down computers; that is a fairy story for people afraid of the dark." -- Stephen Hawking

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Levels of Phenomena

- Ordinary ("easy") => *neuroscience*
 - Thoughts, reasoning, memories, creativity, etc.
- Ordinary ("hard") => *neuro with feedback loops*
 - Experiences, qualia, inner life
- Extraordinary => *neuro + entanglement*
 - Telepathy, clairvoyance, precognition, psychokinesis, etc.
- Beyond extraordinary => *neuro + entanglement + ??*
 - Hauntings, apparitions, reincarnation, out-of-body experiences, mediums, electronic voice, etc.

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Physics Today - Options

- Deeply wrong: *Complete rewrite is necessary.*
- Incomplete: *Major extensions are necessary.*
- Slightly wrong: *Some tweaks are necessary.*
- Misinterpreted: *New point of view is needed.*
- ...
- Complete and correct: *All else is hallucination.*

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Quantum Misunderstandings

- ✗ Superposition means an object can be in two places at once, or take two paths at once.
- ✗ Measurement implies that observation creates reality, that nothing is "real" until we look.
- ✗ Knowledge collapses the wavefunction.
- ✗ Entanglement enables spooky action at a distance.
- ✗ Entanglement enables instant distant communication.
- ✗ Entanglement enables sending a message back in time.
- ✗ "*QM is about consciousness. QM needs consciousness by virtue of its intrinsic structure.*" -- Henry Stapp

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Consciousness & Quantum Physics

"It may be somewhat dangerous to explain something one does not understand very well [the quantum measurement process] by invoking something [consciousness] one does not understand at all!"

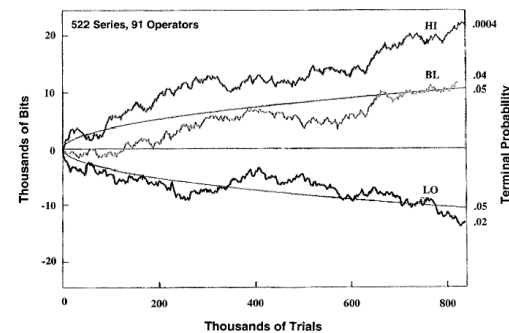
-- Anthony Leggett, 1991.

"...I think that it is not right to tell the public that a central role for conscious mind is integrated into modern atomic physics. ... The only 'observer' which is essential in orthodox practical quantum theory is the inanimate apparatus which amplifies the microscopic events to macroscopic consequences." -- John S. Bell, 1984.

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Psi = Conscious Influence?

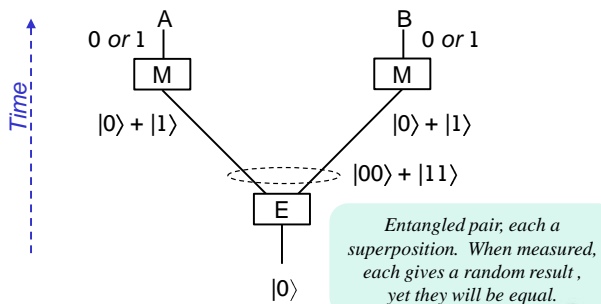


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Jahn & Dunne, JSE, Vol 19, No 2, 2005
PEAR: www.princeton.edu/~pear

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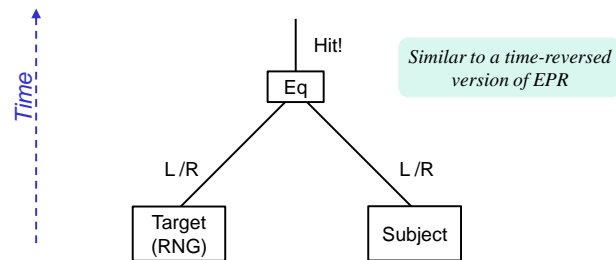
Basic EPR



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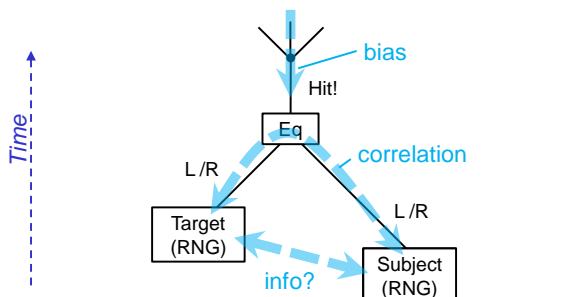
Psi Experiment



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Correlation vs Info Transfer

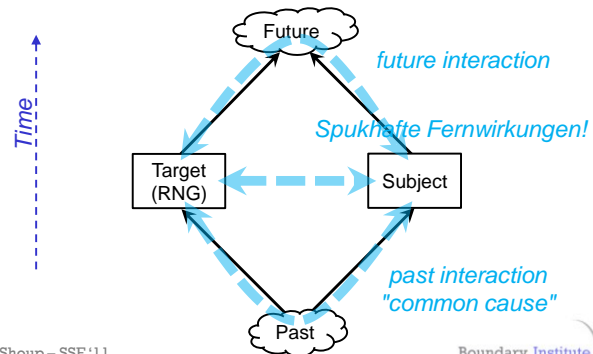


Correlation can look like information transfer between two RNGs IF there is bias on the outcome backwards from the future.

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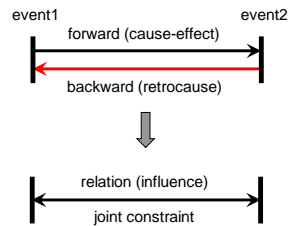
Paths to Correlation



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Causality \Rightarrow Relations



"We may say that there is at present no occasion and no reason to speak of causality in nature – because no [macroscopic] experiment indicates its presence and ... quantum mechanics contradicts it." -- John von Neumann, 1955

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Please Don't Tell Us That ...

- ✗ Consciousness is required in Quantum Mechanics.
- ✗ Nothing is "real" unless it is observed by a conscious being.
- ✗ Consciousness is "non-local", can't be explained in the brain.
- ✗ Psi phenomena require consciousness, are outside of physics.
- ✗ Psi phenomena deny materialism, reductionism, etc.
- ✗ *"Consciousness and matter are not fundamentally distinct but rather are two complementary aspects of one reality".*

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Phenomena That Do Suggest a Separate Self/Mind/Soul

- Psychometry, imprinting
- Hauntings, ghosts, apparitions, poltergeists
- Possession, multiple personalities
- Near-death & out-of-body experiences
- Apparent reincarnation, scars, etc.
- Mediums, electronic voice communication
- ...

Serious study strongly indicated!

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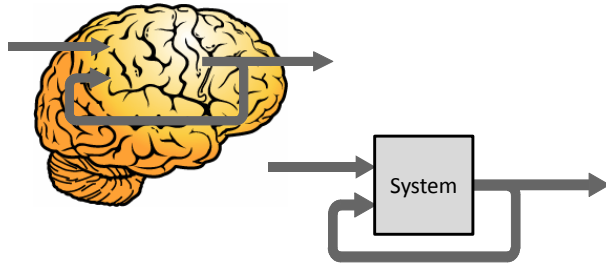
Where the Focus Should Be

- Careful definitions, clarity, concepts, foundations
- Thorough understanding of physics & neuroscience
 - Especially quantum mechanics, as necessary, without leaps
- Further research into the physics of psi phenomena
 - Especially key characteristics of psi, experimenter effects, etc.
- Willingness to confront challenging anomalous phenomena
 - With true skepticism and great care
- An objective, externalized viewpoint
- Connections, building of bridges to mainstream science
 - Not denial, large replacements, insertions, borrowing words, etc.

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Conscious, Self-Aware?



If not, why exactly?

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Summary

- Consciousness phenomena are *important*, but much of the current discussions of consciousness (even if well-defined) is *nonsense*.
- Too much neon & unprincipled behavior -- like Las Vegas
- Many claims that consciousness is non-physical or non-local rest on *misunderstandings of physics*.
- Many *anomalous phenomena* (e.g. psi) claimed to be evidence of consciousness are, or will be, accommodated and explained *within existing physics*, though some modifications are necessary.
- Some phenomena really do suggest a Self/Mind/Soul that is separate from the brain, *and should be seriously studied*.

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Progress of Science – I

- Deeper, simpler principles
 - Pantheon of gods, myriad of rules
 - Gravity => Accelerated motion
 - Electromagnetics => Maxwell's equations
 - Atomic theory => Standard Model
 - Relativity, Matter <=> Energy
 - Quantum processes => Psi phenomena
 - Understanding of Consciousness
 - String Theory?, Quantum Gravity?
 - ...

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Progress of Science – II

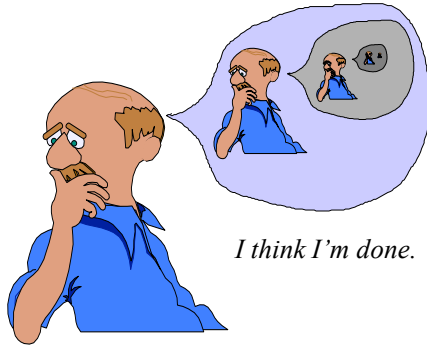
- Relinquishing our “specialness”
 - Our Earth is not special (Copernicus)
 - Our elements are not special (atomic theory)
 - Our motion states are not special (relativity)
 - Life is not special (no vitalism, élan vital)
 - ...
 - *I* am not special (*Self*, *my consciousness*)

“The most important scientific revolutions all include, as their only common feature, the dethronement of human arrogance from one pedestal after another of previous convictions about our centrality in the cosmos.” -- Stephen Jay Gould

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Thank You



I think I'm done.

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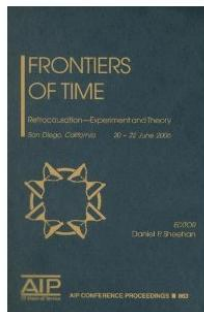
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"A blow to the head will confuse a man, whereas a blow to the foot has no such effect: this cannot be the result of an immaterial soul." -- Heraclitus, 500 BCE

"One certainly has a soul; but how it came to allow itself to be enclosed in a body is more than I can imagine. I only know if once mine gets out, I'll have a bit of a tussle before I let it get in again to that of any other." -- Lord Byron

"Free will is the ability to do gladly that which I must do." -- C. G. Jung

"One of the proofs of the immortality of the soul is that myriads have believed it? They also believed the world was flat." -- Mark Twain

"Since our inner experiences consist of reproductions, and combinations of sensory impressions, the concept of a soul without a body seem to me to be empty and devoid of meaning." -- Albert Einstein

"You, your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules." -- Francis Crick, The Astonishing Hypothesis: The Scientific Search for the Soul (1994)

"I was thrown out of college for cheating on the metaphysics exam: I looked into the soul of another boy." -- Woody Allen