

Explanations of Psi, Speculations on Soul

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Overview

- About materialism – opinion
 - Meaning for psi, phenomena, physics
- About psi and physics – theory
 - How did the information/correlation get there?
- About the “soul” – speculation
 - Hauntings, reincarnation, mediums, etc.
- About future research – suggestions
 - Experiments, Theory, toward acceptance

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End of Materialism?

- ... can't explain psi
- ... can't explain reincarnation
- ... can't explain consciousness
- ... leads to suffering
- ... implies no meaning or purpose
- ... implies no responsibility

".. the report of my death was an exaggeration." – Mark Twain

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Physics Today

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

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Key Anomaly: Psi

- Traditional taxonomy inappropriate, misleading
 - Telepathy, Clairvoyance, Precognition, Psychokinesis - different aspects of the same natural phenomenon
- Important properties (*hints*), from the *evidence*
 - Time/order independence (clairvoyance vs precognition)
 - Complexity independence (goal orientation)
 - Selectivity problem (resonance, “tuning in”)
 - Experimenter effect (attitude, audience)
 - Effect small (in principle?), unavailable to evolution
- Real physical phenomena, poorly understood
 - Not poor technique or analysis, fraud, hallucination, etc.
 - Analogy to history of electromagnetism

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Law of Causality?

- Common sense - cause *before* effect, unidirectionally
- Experiments *cause* their results, not the other way around
- But the laws of physics are time-symmetric
 - Exception?: random “collapse” of the wavefunction

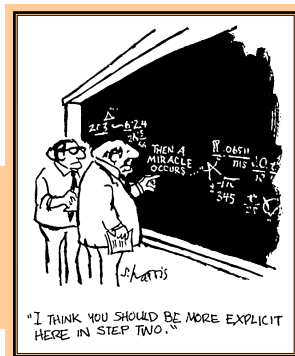
“All philosophers imagine that causation is one of the fundamental axioms of science, yet oddly enough, in advanced sciences ... the world ‘cause’ never occurs.... The law of causality, I believe, ... is a relic of a bygone age, surviving, like the monarchy, only because it is erroneously supposed to do no harm.”
 -- Bertrand Russell, 1913

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Quantum Dynamics

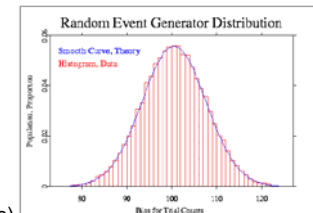
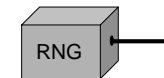
1. Unitary evolution
 (Schrödinger equation)
 - linear, unitary, conservative, reversible, deterministic
2. Measurement (“collapse” of the wavefunction)
 - non-linear, non-unitary, non-conservative, irreversible, random, unpredictable



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REG/RNG: Uninfluenceable, Unpredictable

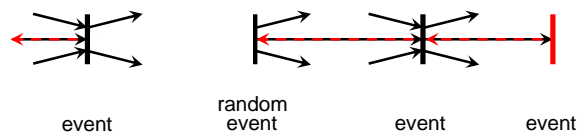


- No inputs (external influences)
- No memory (internal history)

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Randomness vs. Backward Influence

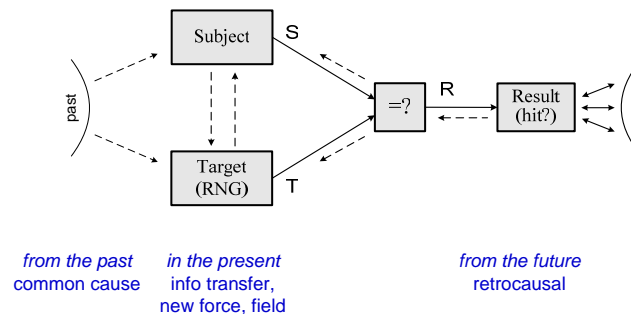


unitary measurement \Rightarrow no random collapse \Rightarrow retrocausal influence

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Simple Experiment - Paths



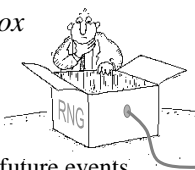
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Origin of Apparent Randomness?

- RNG is best thought of as an *empty box*
 - Not really a generator, but a *receiver*
 - Reflection of *output* (dependencies)
 - No such thing as causeless action
 - Output *appears* random due to complex future events
- Effects can be understood *without* injury to physics
 - QMeasurement is *unitary* -- no “collapse”
 - Events are connected through *past* or *future* interactions
 - Causal influence forward and backward (*relational*)

Every interaction is mutual, a symmetrical dance.



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More Interesting Phenomena

- Psychometry, location psi
 - Imprints in objects, tuning in
- Hauntings, ghosts
 - Location-specific, emotional imprints
- Reincarnation phenomena
 - Memories, personality, birthmarks, etc.
- Medium communication
 - Tuning in, interaction, information

...

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“Soul” & “Survival” – too simple

- Apparent reincarnation seen in children ages 2-6 yrs
- Some clues and speculations:
 - Memories seem to be *implanted*, as ordinary memories, not just accessed externally or “tuning into” past life records
 - *Not just memories*, but personality, info about death, life, etc.
 - *Not coded in DNA*, so must be implanted after conception
 - Perhaps tuning to a previous individual occurs at the cellular level during *highly-sensitive processes* early in gestation
 - *Birthmarks*, scars also suggest early cellular-level influence
 - *Specific predecessor person*, not general psi ability
 - Some cases of memories of *still-living persons*, some cases of memories of *multiple past lives*

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Non-material Soul/Self?

- Evidence: Consciousness/Self/Soul
 - Not *things*, but structures, patterns, systems
- Buddhists view: Self/Soul, materialism
 - reincarnation of a person's *energy pattern*
 - desired state: *egoless* impermanence
 - materialism *misinterpreted* \Rightarrow suffering
 - *belief* is the source of all evil in the world
- re Experience: *A voltmeter can't measure itself.*

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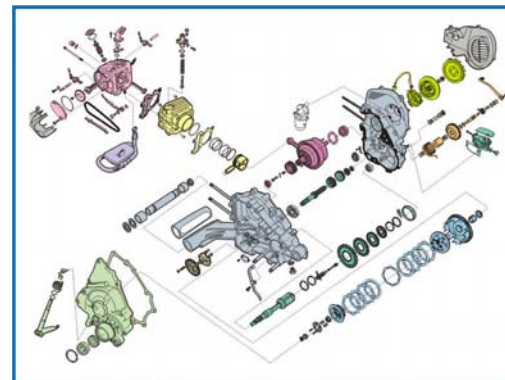
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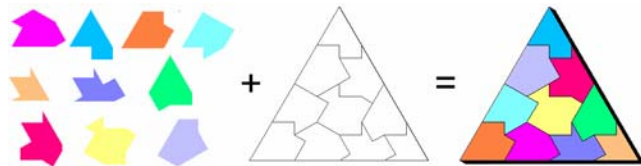
Σ Parts = Whole?



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Reductionism & Mereology



Parts + Structure = Whole
non-physical info, but must be stored physically

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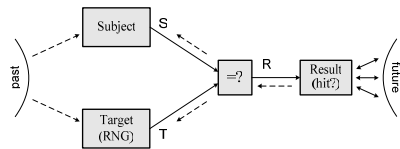
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Tart Questions

- Q: Do psi phenomena require extending physics?
A: Only small modifications to quantum theory.
- Q: Can a physical theory of psi be empirically tested?
A: Yes, of course, otherwise it's not a valid theory.
- Q: Will machines someday demonstrate psi?
A: Yes, and some already do, e.g. via PK.
- Q: Have physical theories of psi been useful?
A: Not so much ... yet.
- Q: Would a non-material soul require extending physics?
A: No, if the "soul" is basically neural structure.

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

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Directions: Experiment

- Analyze prior experiments and databases (especially large ones such as the GCP, GotPsi, others) for retrocausal effects on RNGs and on subjects.
- Analyze prior experiments in other scientific fields for retrocausal and other psi effects.
- Carefully control and manipulate the size and complexity of future dependencies to a stream of random events, including the experimenter(s).
- Examine known physical variables such as local sidereal time, lunar phase, local geomagnetic fields, etc.
- Experiments involving only correlations among RNGs. “The best psychic is a true random generator.”

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Directions: Theory

- Further implications of unitary measurement, degree of backwards influence
- Evidence of entanglement due to future interactions
- Double-boundary conditions, Markov chains
- Math models and predictions for real experiments
 - Discrete combinatorics (Link Theory)

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Perfect Storm: Non-acceptance

- Phenomena are small, elusive, difficult to replicate, strange
 - Uncontrolled variables, experimenter effect, etc.
- Phenomena appear to violate physical laws ***
 - Rewrite all of physics?... No!
- Extremely high noise level in the field
 - Nonsense, true believers, true dis-believers, etc.
- Investigations mostly in the realm of psychology
- Negative definitions and terminology
 - Parapsychology, paranormal, extrasensory, supernatural



...But the significance and benefits are (will be) very large!

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Directions: Acceptance

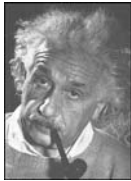
- Fundamentally a physics problem
- Deeper physical theory that connects
 - Consistent, plus corroborating evidence
- Define phenomena, terms, positively
 - As anomalies within physics, not outside
 - No vague “consciousness”, “energy”, etc.
- Outreach, collaborations, publication, etc.



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Is Nature Probabilistic?

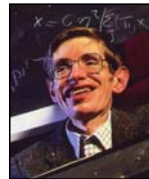


"[QM] yields much, but it hardly brings us closer to the Old One's secrets. I, in any case, am convinced that He does not play dice."

– A. Einstein, letter to Max Born, 1924

"Not only does God definitely play dice, but He sometimes confuses us by throwing them where they can't be seen."

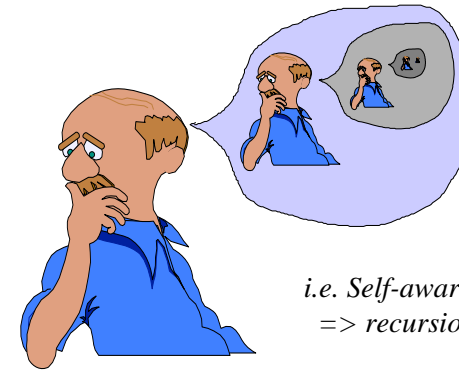
– S. Hawking, 1995



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Consciousness?



*i.e. Self-awareness
=> recursion?*

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Key Elements of Consciousness

- Self / Identity: "How do you explain my *experience*, my internal states, my feelings, my rich inner life, etc?"
=> Instead, we should be asking "Who is the I?"
- Conscious phenomena:
emotion, modeling, learning, creativity, Psi, etc
- Free Will: Non-determinism, freedom of personal choice
=> Randomness, causeless events?

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Leaps of Consciousness, i.e. Pitfalls

- ⊘ Internal experiences (feelings, qualia) are so inexplicable that quantum physics must be involved in the brain.
- ⊘ A conscious observer is necessary and central to quantum measurement.
- ⊘ Consciousness phenomena violate physical principles, especially cause-and-effect.
- ⊘ Godel's theorems imply that the mind cannot be a computer.
- ⊘ Godel's theorems imply there are some things we cannot know.
- ⊘ "... take experience itself as a fundamental feature of the world, alongside mass, charge, and space-time." – David Chalmers

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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

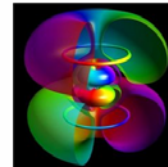
"'You,' your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules." -- Francis Crick, The Astonishing Hypothesis: The Scientific Search for the Soul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

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

Roger Ebert's Journal

The quantum theory of reincarnation

By Roger Ebert on July 25, 2009 12:18 PM | [Comments \(232\)](#) | [Trackbacks \(0\)](#)



If you want to see fear in the eyes of a quantum physicist, mention the word "measurement." -- Folk saying

Is reincarnation possible from a scientific, rationalist point of view? For my purposes today I'm going to argue that it is. We will never, however, be aware of it, and indeed "we," as we like to think of ourselves, will be completely out of the picture. I'm going to approach the problem from the point of view of quantum mechanics—a field about which I understand almost nothing, although discussing it permits others to assume I have gone mad.

Let's begin, for the sake of argument, by saying that when you get right down to the bottom—under the turtles—everything, and I mean everything, consists of quantum particles. These particles can as well be in one place as another, even at the same time. As Wikipedia informs us: *The Everett many-worlds interpretation, formulated in 1956, holds that all the possibilities described by quantum theory simultaneously occur in a "multiverse" composed of mostly independent parallel universes.*

The crucial word here is "simultaneously." I take it to mean that Everything can be thought of as being in no particular place at any particular time. If you choose to think of it that way, be my guest. Whatever you think will be sublimely irrelevant, because places and times are concepts we bring with us to the quantum level. They do not seem to exist there. Or if they do, they are created only in the act of our applying them, and our measurements have meaning to us but not to them.

Readers who are informed on this subject will have already stopped reading. Some may have been seized by helpless laughter. Disregard them. They're gone. I am writing for the rest of us. Experts have had decades to make this clear. Now it's up to us to do the heavy lifting. Please don't repeat that tired old meme about how I shouldn't believe everything I read on Wikipedia. It knows a damned sight more than I do.



Now, then. If Everything consists of quantum strings, then what, you may well ask, is a quantum string? Here Wikipedia is a model of clarity. A string is one

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