

QUANTUM PHYSICS AND CONSCIOUSNESS

Is Man Finding God?

Andrew Linnell

EVOLVING FROM SCIENCE TO ENGINEERING

- “It no longer matters if we understand it; what matters is if the *model* can accurately predict all outcomes.”
- It works “for all practical purposes [FAPP]”
- RS: “we are striving for a connection of the ‘I’ with the truth”

FOREVER SEPARATED? MIND & MATTER

Emil du Bois-Reymond

Consciousness

- "ignoramus et ignorabimus"

- We don't know and we can never know
- 1880 speech to the Berlin Academy of Sciences

- Neither science nor philosophy could ever explain the "transcendent" problems like the Seven World Riddles:

1. the ultimate nature of matter and force,
2. the origin of intelligent thought and language,
3. the origin of motion,
4. the origin of life,
5. teleological arrangements of nature
6. the origin of simple sensations,
7. the question of freewill

abyss

Matter

Light

Light

Quantum physics?



20TH CENTURY EXPLORERS

Matter

- Newton overthrown
 - Einstein, Bohr, Bell, Heisenberg, Schrodinger
- From molecule to atom to sub-atomic
- Space telescopes
 - Binary star orbits in hours

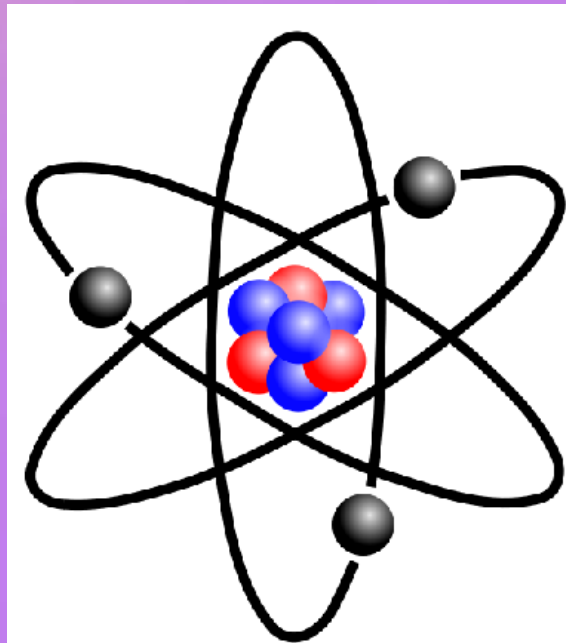
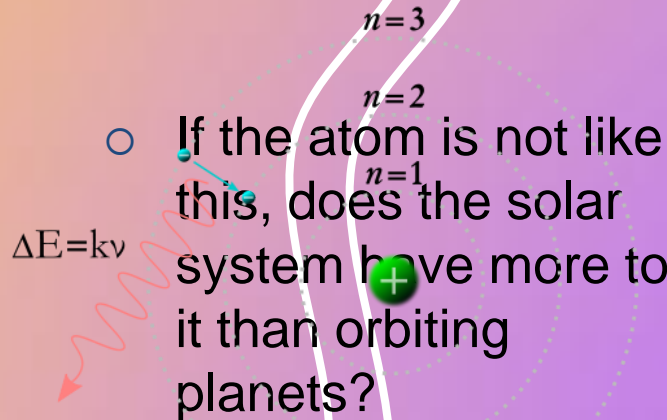
Mind

- Steiner, Jung, Freud
- Chalmers, Dennett, Crick
- Minsky, Kurzweil
- TM, Yoga, Scientology, many others

FOUNDATIONS OF MISUNDERSTANDINGS

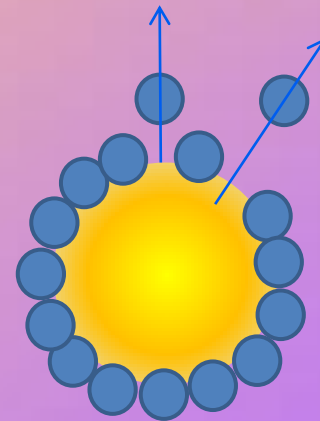
- “A "field" in physics may be envisioned as if space were filled with interconnected vibrating balls and springs, and the strength of the field can be visualized as the displacement of a ball from its rest position. Vibrations in this field propagate and are governed by the appropriate wave equation for the particular field in question.”
 - http://en.wikipedia.org/wiki/Casimir_effect

- What is the distance from the nucleus to $n=1$?
 27 km
- If the atom is not like this, does the solar system have more to it than orbiting planets?



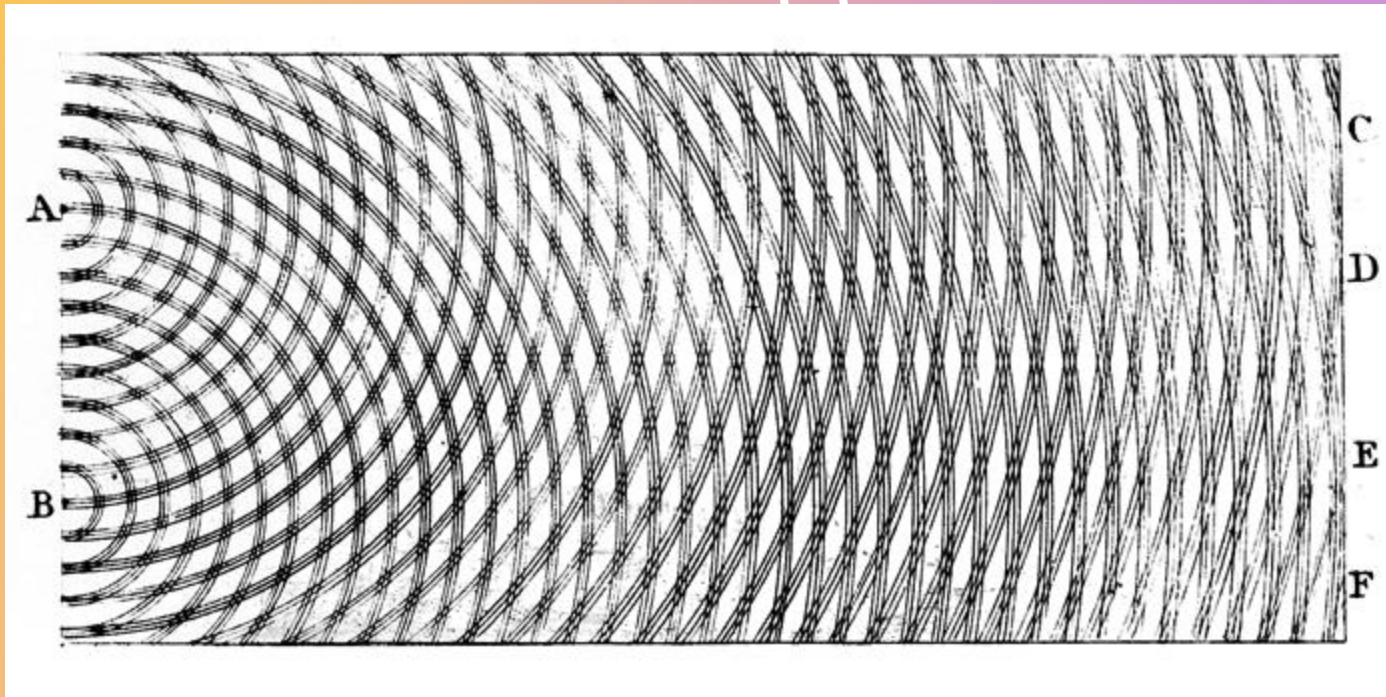
MISUNDERSTANDINGS OF LIGHT

- Light rays out as continuous stream of photons
- Photons stream out evenly in all unobstructed directions
- At every unobstructed periphery point a stream of photons is observed
- RS: “in pure rays of light shines the divinity of the world;” “the bearers of light are Luciferic beings”

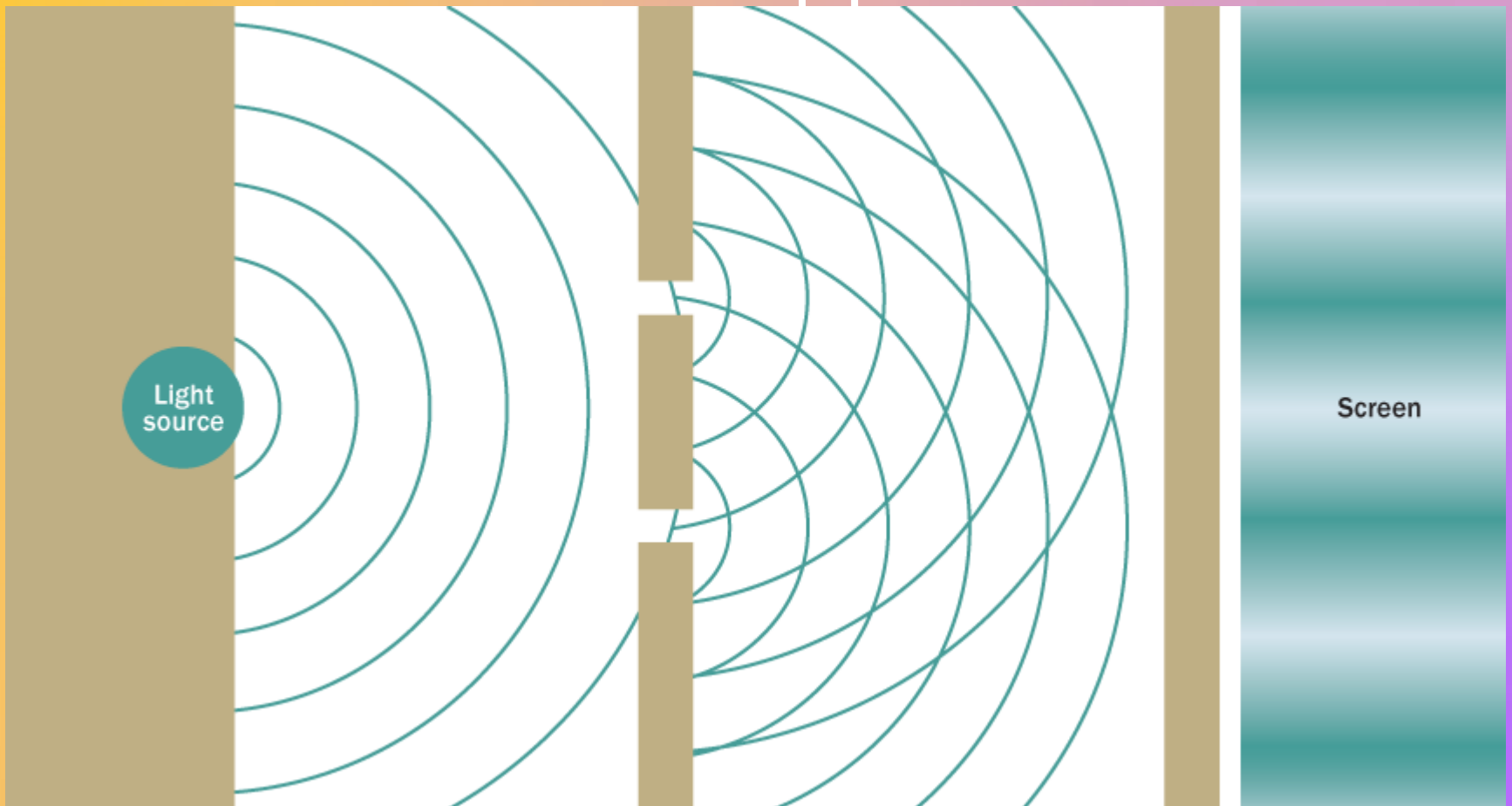


WHAT STARTED IT: DUAL SLIT TEST

- <http://video.google.com/videoplay?docid=-4237751840526284618#>

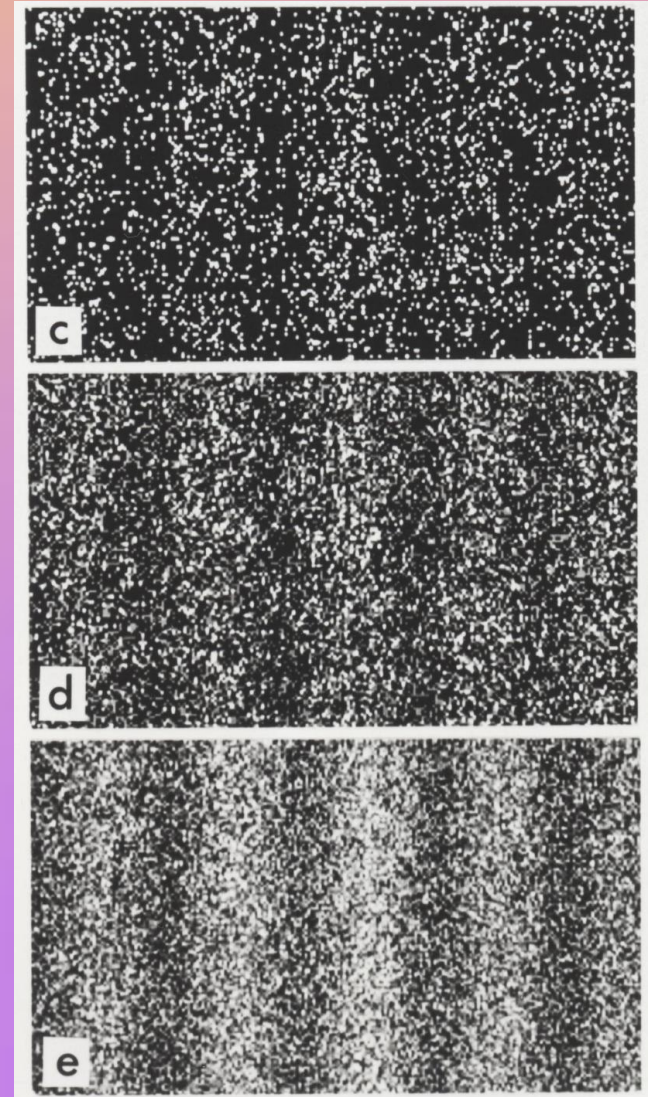


DUAL SLIT WAVE PATTERNS



DUAL SLIT EXPERIMENT RESULTS

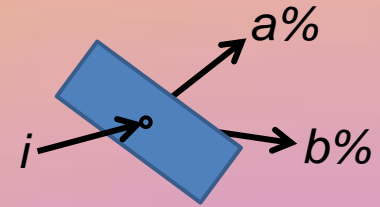
- One electron had to be going through both slits
- The electrons (and the same applies to photons and to anything of atomic dimensions used) arrive at the screen in an unpredictable and arguably causeless random sequence
 - http://en.wikipedia.org/wiki/Double-slit_experiment



DUAL SLIT CONCLUSIONS

- Light acts like a wave or a wavefunction
 - Same for electrons (and atoms)
- But, we had thought, light acts like particles
 - Same for electrons (and atoms)
- Are photons and electrons related?

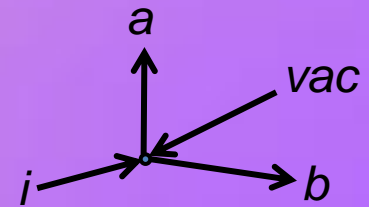
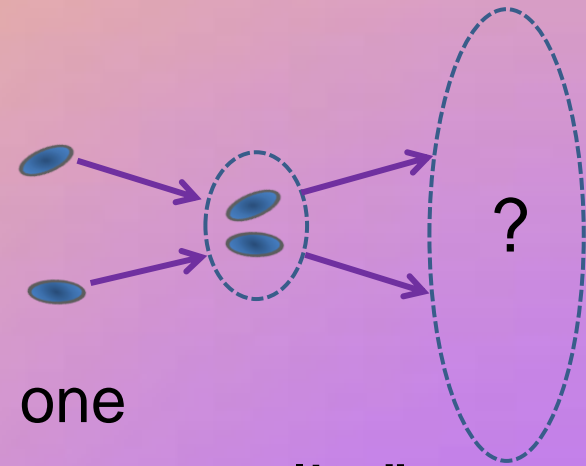
NON-LOCALITY EXPERIMENT



- **Neutron** interferometer and beamsplitter
 - Electric: no charge, Mass: $1800 \times$ electron(-)
 - Superposition *State*
 - Neutron did NOT split, state = a & b both occupied
 - Recombine: causes an interference pattern
 - Neutron traveled both paths
 - Delay a , then recombine: causes a different interference pattern
 - Neutron interferes with itself spatially, non-locally
 - Yet it remains “coherent” (one thing) throughout
 - Detector finds it whole in only one place
 - “Collapses” into one or the other place

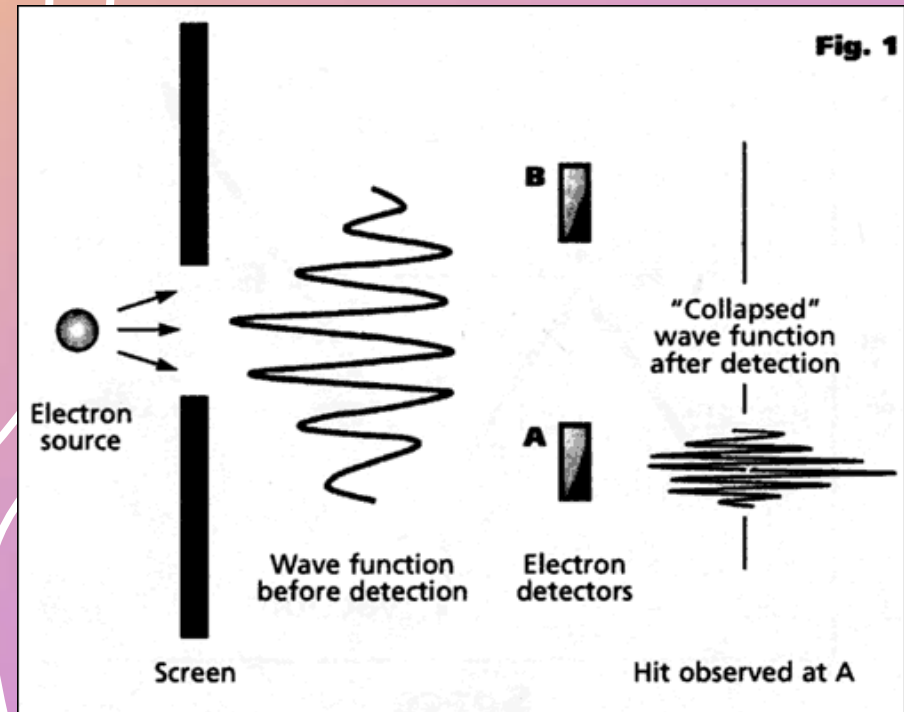
ENTANGLEMENT

- Neutrons, electrons, photons
- Bring two alike together
 - Interact
- After, separate, at distance
 - The two (or more) have become one
- “Entangled system is an **emergent** reality” – Arthur Zajonc
- Measurement disentangles!
- Single particle? Coherent vacuum
 - Similar to Light and Dark?



DUAL ELECTRON DETECTORS

- Where is the photon?
 - Always only in A or B but never both
- Superposition (both) exists until consciousness applied
 - Wave function collapses on one
 - What effect does the detector have in forcing a particle's outcome?

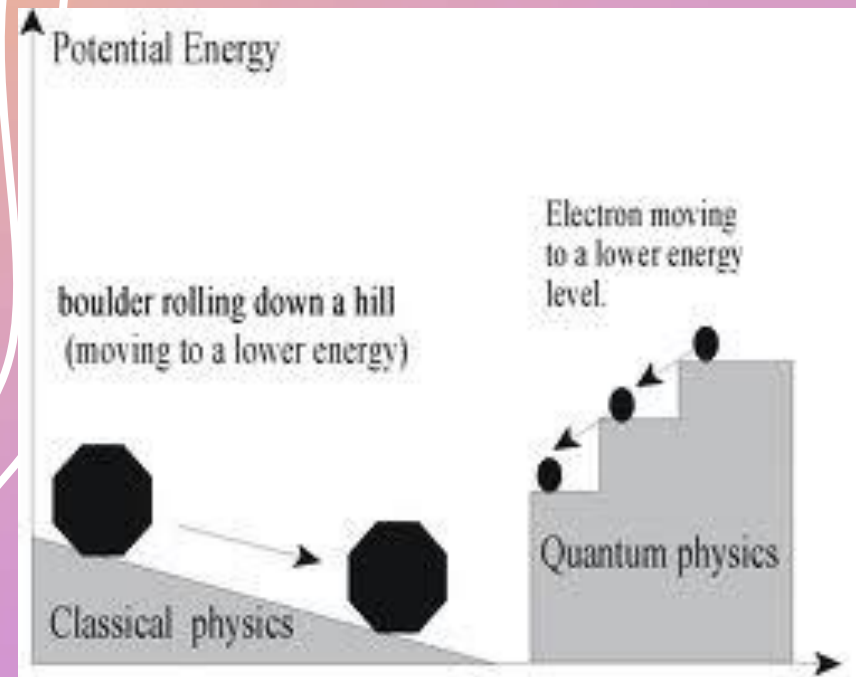


QUANTUM PHYSICS BASICS

Position & momentum

- Measure momentum, position is poorly defined
- Measure position, momentum not known
- Not a matter of an inability to measure accuracy; rather, it's an intrinsic property of sub-atomic particles, no matter how good the measuring apparatus is

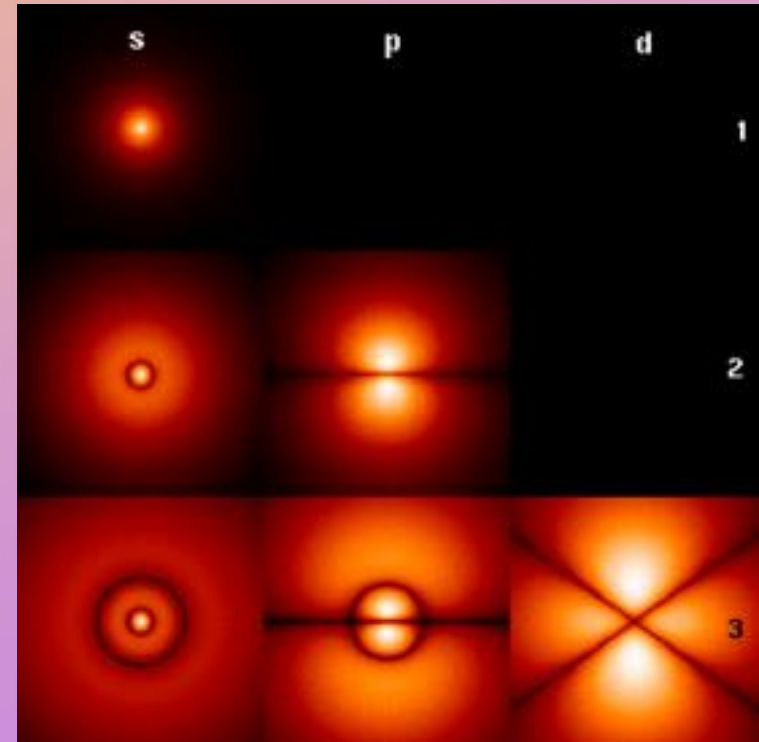
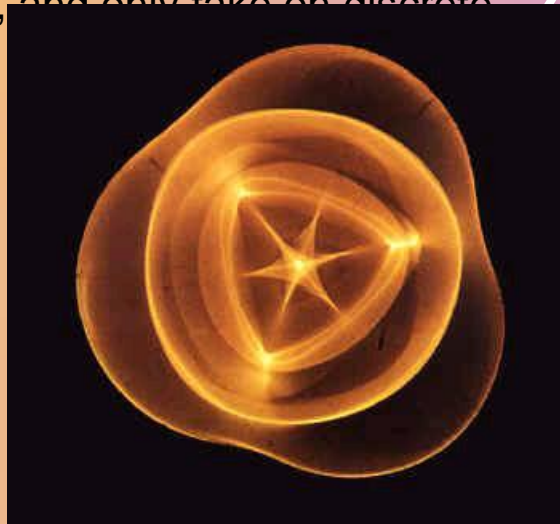
Heisenburg Uncertainty Principle



QUANTUM PHYSICS BASICS

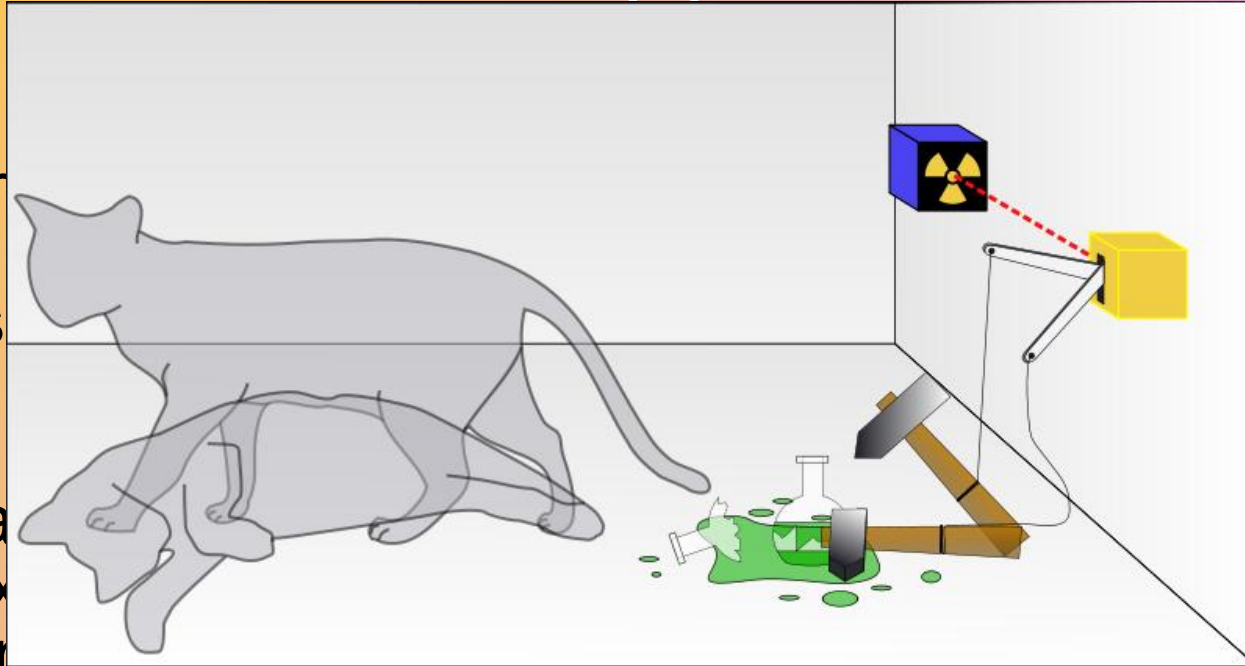
Probability densities of wavefunctions

- Electron in a hydrogen atom
- Energy levels $n = 1, 2, 3, \dots$
- Angular momentum (s, p, d,...) Brighter areas correspond to higher probability density in a position measurement.
- Wavefunctions comparable to Chladni's figures
- The angular momentum and energy are quantized, and only take on discrete values



SCHRODINGER'S CAT

- A flask source environment inside a box is a cat. The mechanical system simultaneously keeps the box alive and dead.



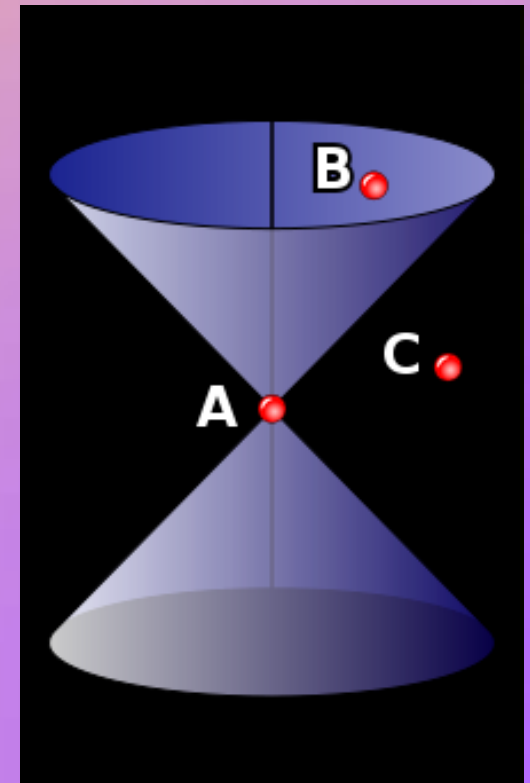
- When does a quantum system stop existing as a superposition of states and become one or the other?

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. If
the
ok in
both

EINSTEIN'S SPECIAL RELATIVITY

1. The laws of physics are the same for all observers in uniform motion relative to one another
2. The speed of light in a vacuum is the same for all observers, regardless of their relative motion or of the motion of the source of the light

Causality



EINSTEIN AND BELL: NON-LOCALITY

- Einstein never liked Quantum Mechanics
 - Invented the quantum theory of light
 - QP was incomplete
 - Didn't like the idea that the momentum of a particle, if it's position was known, was completely unknowable--random.
 - "God does not play at dice with the universe."
- Neils Bohr replied, "Quit telling God what to do!"
- In 1935 Einstein with Boris Podolsky and Nathan Rosen wrote "Can Quantum-Mechanical Description of Physical Reality be Considered Complete?"
 - A pion has no spin
 - Pion decays into two photons that shoot away from each other in opposite directions
 - Photons have spin, but these two photons have opposite spins cancelling each other
 - Thus, if you know the spin of one photon, you can deduce the spin of the other photon
 - Because the photons came from a single pion, they are "entangled"
 - How would the second photon "know" you measured the first photon?
 - Quantum mechanics says you can't measure both with absolute certainty
 - Relativity: "knowledge" of the measurement of the first photon can only travel the speed of light but quantum mechanics requires the "knowledge" of the measurement to be instantaneous, because they have been entangled.
 - Einstein called it "spooky action at a distance"

BELL'S INEQUALITY

Hidden variables for photon entanglement?

- Bell proved mathematically that this was impossible with this inequality:

Number(A, not B) + Number(B, not C) \geq Number(A, not C)

- Example:

A: male

B: height over 5'8"

C: blue eyes

- Inequality: number of men students who do not have a height over 5'8" plus the number of students, male and female, with height over 5'8" but who do not have blue eyes is greater than or equal to the number of men students who do not have blue eyes

Proof:

- Nicolas Gisin in 1997.
 - Univ. of Geneva, Switzerland
- Entangled photons sent down fiber optic cables in opposite directions.
- When the photons were about 10 kilometers apart they ran into a detector.
- Gisin found that even though a large distance separates the photons, something done to one photon at one end very much affected the photon at the other end. . . instantaneously.
- Called non-locality
- Mesons using anti-matter

SOMETHING'S HAPPENING HERE

“What it is ain’t exactly clear” – Bob Dylan

- Useful as it is under everyday circumstances to say that the world exists “out there” independent of us, that view can no longer be upheld [by physics]. There is a strange sense in which this is a “participatory universe” – John Wheeler
- Every interpretation of Quantum Mechanics involves consciousness – Euan Squires
- Eight decades after Schrodinger’s equation, the meaning of physics encounter with consciousness is still in contention – Bruce Rosenblum

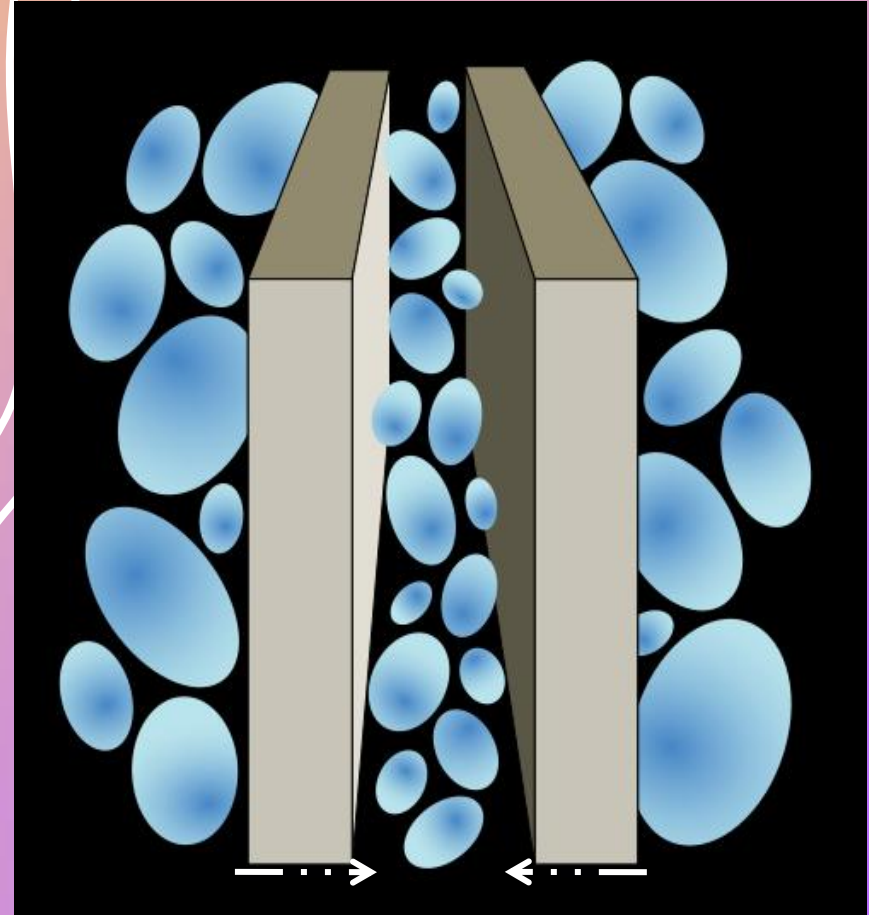
SECRET COMMUNICATIONS

- The process is called teleportation, but the information in the message is not actually moved. Instead, changes to one photon's quantum state will be adopted instantly by the other - something Einstein famously called "spooky action at a distance." The result is akin to having two pieces of paper 10 miles apart, and as a person writes on one paper the message simultaneously appears on the other.
- Why is this superior to e-mail or radio? Because, theoretically, this method "cannot be cracked or intercepted," says Luce. If the photons in the laser beam are observed by a third party, the particles themselves will be altered due to a law of physics called the Heisenberg Uncertainty Principle, which states that measuring a particle alters it. As such, the sender and receiver would be immediately informed that someone was snooping.
- At the 16km distance tested, China would be able to send these secure messages from its network of satellites to units on the ground. Luce also says the choice of a blue laser - instead of an infrared one like the U.S. has been testing - was chosen with its growing submarine fleet in mind since blue lasers penetrate farther underwater. Soon, Chinese satellites could be able to communicate with submarines without them needing to surface or give away their location by breaking radio silence. This may sound like science-fiction, but quantum encryption is already used by a few banks and governments for highly sensitive information on a smaller scale. The Chinese scientists write in Nature Photonics that a quantum communication network could be "within reach of current technology on a global scale."

http://news.yahoo.com/s/time/20100909/wl_time/08599201668700

CASIMIR PLATES AND ZERO-POINT ENERGY

- Vacuum energy contains contributions from all wavelengths, except those excluded by the spacing between plates.
- As the plates draw together, more wavelengths are excluded and the vacuum energy decreases. The decrease in energy means there must be a force doing work on the plates as they move.
- The plates affect the virtual photons which constitute the field and generate a net force
- Calculate zero-point energy of a quantized field in the intervening space between the objects.
- If the energy is "really there", then it should exert a gravitational force. In general relativity, mass and energy are equivalent; both produce a gravitational field.
- Thus, the zero-point energy of the vacuum is infinite, but only differences in energy are physically measurable.
- The infinity can be removed by "renormalization." In all practical calculations, this is how the infinity is handled.



CONSCIOUSNESS AND QUANTUM PHYSICS

- The observer affects the experiment
- Microscopic and macroscopic worlds
 - We need macro to measure
- Collapsing wavefunctions - superpositions
- Non-material ethers – quantum potentials
- Multiple universes, holoverse

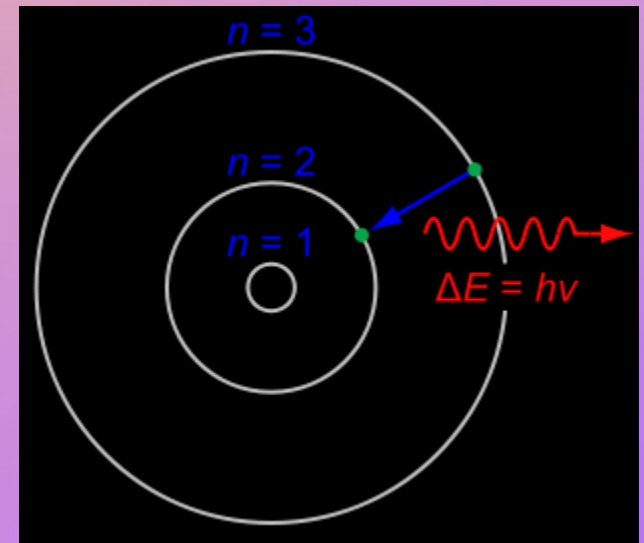
IMPLICATIONS

- I have a quantum car. Every time I look at the speedometer I get lost ...
- Strong AI is not possible (computers become capable of thinking like a human)

PHYSICS' CONCEPT OF LIGHT

Photon emission

- Heating atom allows electron(s) to move out; later they jump back releasing photon



POLARITY OF LIGHT

- Is it darkness?
 - Is darkness necessary to see what's illuminated?
 - On a soul level, darkness reveals what is will
- Light shines out – what has its direction point inward?
- Heaviness

MATTER AND LIGHT

- Light:Thought; Matter:Will
 - Inside head: thought while outside: light
 - Inside cosmos: light while outside: thought
 - Past:Light, Future:Dark
 - Human life: past mixes with future (like a ladder)
- Future lies in the strength of matter
- Past radiates in the beauty of light

WHAT IS LIGHT? – ANCIENT PERSPECTIVE

- Zoroastrian tale of responsibility in redemption of Angra Mainyu by Ahura Mazda
 - Dual creations of light cosmos and dark cosmos
 - Dark attacked, mingled with perfection □ physical world
 - Creation □ Mixture □ Separation. Man must overcome evil.
 - Gnostic tale of Man as light + dark
- Egyptian tale of an eye of the sun god Ra (Horus) and its mirror made for the serpent Uraeus
 - The gaze of God is Light
 - To see is to illumine
 - Sun and moon as eyes of the gods
 - Ra's sight lights the macrocosm, sight of Man lights micro

WHAT IS LIGHT? – GREEK VIEW

- Gift of Prometheus: fire from the gods
- Empedocles:
 - Love goddess, Aphrodite, built our eyes from 4 elements
 - Kindled fire of eye at hearth of universe, enclosed in “glass” tissue giving it fine passages to transmit this fire even through the water of the eye out into the world
- Plato:
 - Fire of eye sends forth gentle light ray that coalesces with strong light of day from God(s)
 - Body as bridge between inner and outer worlds each with their own light
 - Eye and Sun in harmony
- Euclid: search for a needle, eye scans till match
 - Visual ray susceptible to mathematization
- Did the Greek see blue? Were colors a soul state?

WHAT IS LIGHT? – CHRIST TO CHARTRES

- John's Gospel: "the life was the light of men and the light shone in the [soul's] darkness and ..."
 - "I am the Light of the cosmos (world)"
 - A light, unlike Lucifer, without self-centered consciousness
 - To mingle with for the redemption of Lucifer - Man's task?
 - John the Baptist came to witness and testify to the light
- Matthew's Gospel: "eye is the light of the body"
- 1 John 1:5
 - "God is light and in him is no darkness at all ... if we walk in the light, as he is the light, we have fellowship with one another."
- William of Conches: physical food transformation
 - Stomach: destroys physical bindings
 - Liver: becomes natural virtue
 - Heart: becomes spiritual virtue
 - Brain: becomes animated "wind" = ray of the eye

WHAT IS LIGHT? – MODERN $E = mc^2$

- Descartes, Kepler, & Alhazen: Camera obscura
 - World bright, eye dark, reversed image grasped by mind
 - No inner fire, no inner etheric ray of observation
- Thomas Huxley: “We shall, sooner or later, arrive at a mechanical equivalent of consciousness”
- David Hubel (Nobel laureate): brain is a machine, mind is an illusion, no need to appeal to spirit or any mystical forces, sight is simply a brain state.
 - Idolatry? An image substituting for a spiritual reality.
 - Isn't this what defines a scientific model?
- No relationship of inner to outer, no morality left
- Stream of particles (photons)
- Others: Goethe (and Steiner)
 - Color as the deeds and sufferings of Light

WHERE IS THE RED I SEE?

- If we had no eyes, would there be red?
 - Our sensations depend on *movement* patterns
 - Our visual nerve conveys this to the brain
 - Red exists only when we, as subjects, intercept
- What is a mental image?
 - Do we have a perception of *movement*?
 - Movies are still pictures in which objects are “moving”
 - Movement dissolves into nothing
- What is matter?
 - Stripped of all sensations (color, movement, etc.)

NEOPLATONISTS VIEW

- Plotinus: the physical world is an **excretion** of the pre-existing spiritual world
- The curious portion of the physical world known as the human being can reach a stage of development where it develops a spiritual-psychic aspect
- As shown in children, that part of the spiritual-psychic element, which in the first place functioned in a material way, now, when its material work is finished, liberates itself from its relation to the material and appears as an independent spiritual-psychic entity
 - Example: memory, change of teeth, and puberty
 - Thus, Man is a spiritual being placed into matter
 - Man is the bridge between consciousness and matter

RESTORING SIGHT TO THE BLIND

- Argus II Retinal Prosthesis System, artificial retina chip, beginning clinical trials
 - Designed at UCSC and fabricated by Second Sight Medical Products.
 - The project was funded by the Artificial Retina Project at the U.S. Energy Department.
- How it works:
 - Implant the artificial retina chip directly inside the eye atop the old retina.
 - Only patients whose retina has degenerated, but still have intact nerves connecting to the brain
 - Retinitis pigmentosa or age-related macular degeneration
 - The artificial retina has an array of electrodes that stimulates optic nerve cells, sending an image to the brain's vision centers.
 - The plasticity of the brain's vision processing capabilities enable it to adapt to the artificially generated signals.
 - A tiny wire connects the artificial retina to a circular antenna mounted around the pupil on the inside front of the eye.
- A video camera mounted on a pair of eyeglasses wirelessly transmits images to a belt pack containing a microprocessor that processes the video signal, then transmits it to the antenna in the eye, which in turn sends signals down the wire to directly stimulate optic nerves with the implanted electrode array.
- *But anyone born blind will never see even when “sight” is restored (unless they are young enough). Does this imply the Platonists’ visual ray is necessary to see?*

WHAT IS ELECTRICITY?

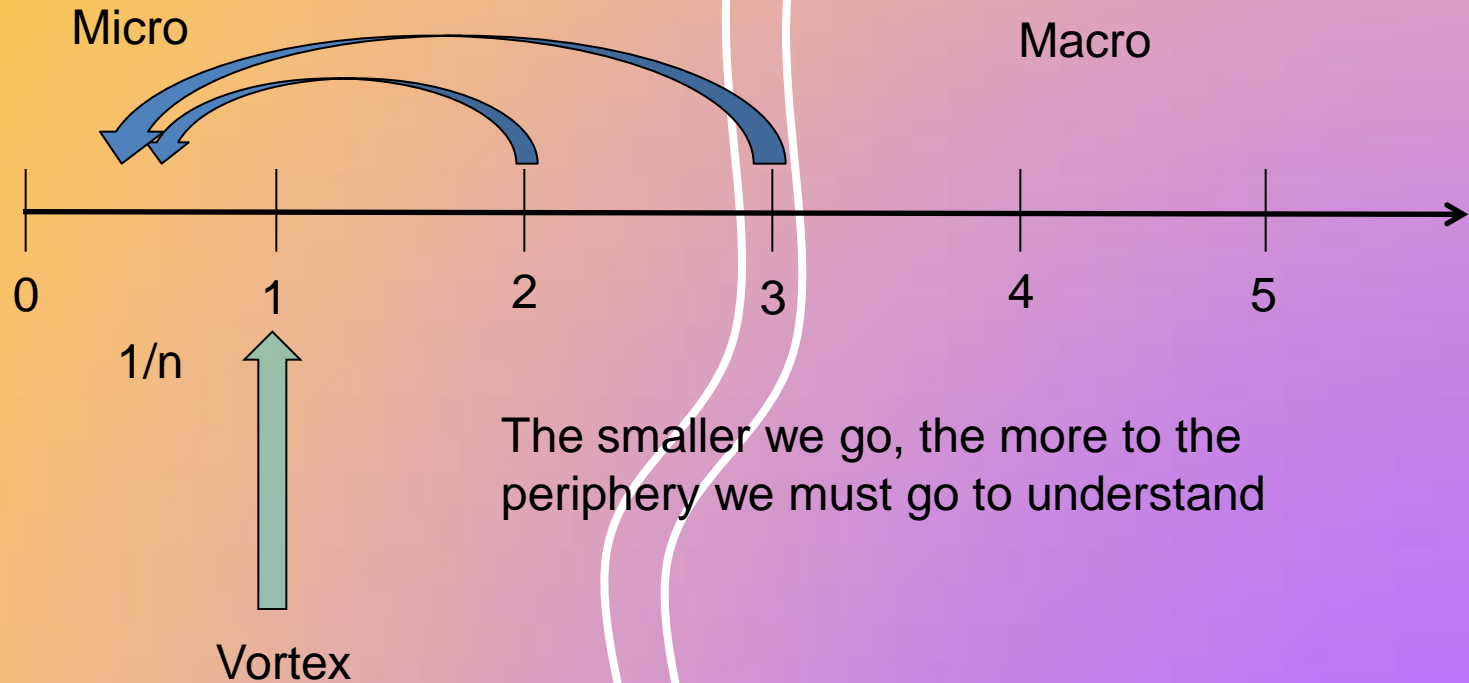
- Stream of electrons?
- A model for engineering
 - Electrical Engineering = Plumbing
- Imaginary numbers

$$i^2 = -1$$

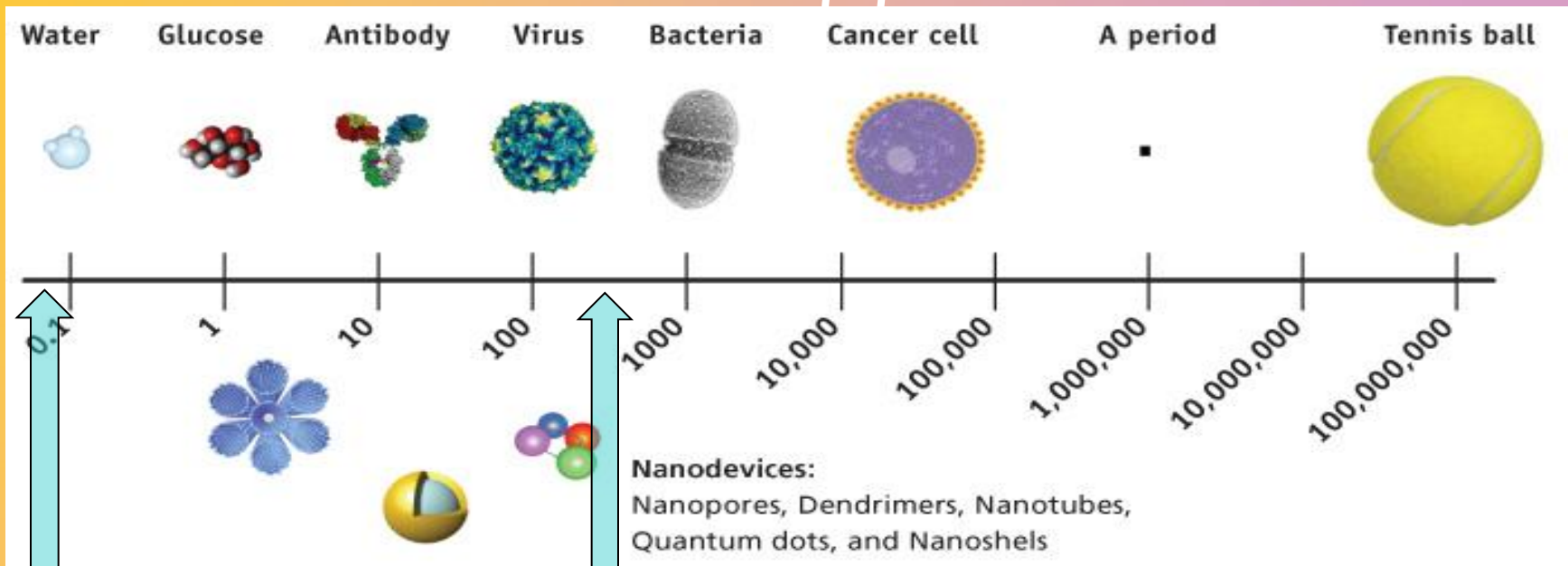
CONDUCTIVITY

- What does this term mean? Current?
 - We borrow terms from water flow (plumbing)
 - Resistance, potential (pressure),
- Electric current requires a metal (or super-conductor) to flow
 - What metals? Silver, gold, iron, copper, mercury?, tin?, lead?
 - Super-cold and super-conductors
 - What is it about warmth that spoils conductivity?

NUMBERS



IS THERE A PHYSICAL THRESHOLD?



Quantum
Physics

<http://www.scientificamerican.com/article.cfm?id=are-viruses-alive-2004>

Minimal size for life

Where do wavefunctions no longer
apply?

DO SUB ATOMIC “PARTICLES” EXIST?

- Research Big Bang
 - Did BB make a sound?
 - Did a sound make the BB?
- See only “effects”
 - Large Hadron Collider: need Macro to “see” Micro
 - 27-kilometer diameter

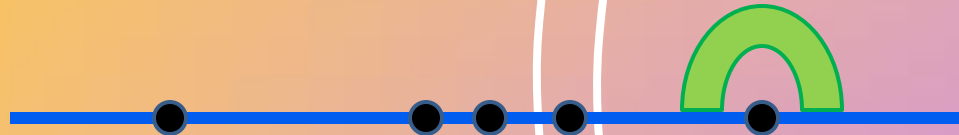


Three Generations of Matter (Fermions)			
	I	II	III
mass→	2.4 MeV	1.27 GeV	171.2 GeV
charge→	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$
spin→	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
name→	u up	c charm	t top
Quarks	4.8 MeV $-\frac{1}{3}$ $\frac{1}{2}$ d down	104 MeV $-\frac{1}{3}$ $\frac{1}{2}$ s strange	4.2 GeV $-\frac{1}{3}$ $\frac{1}{2}$ b bottom
Leptons	<2.2 eV 0 $\frac{1}{2}$ ν_e electron neutrino	<0.17 MeV 0 $\frac{1}{2}$ ν_μ muon neutrino	<15.5 MeV 0 $\frac{1}{2}$ ν_τ tau neutrino
	0.511 MeV -1 $\frac{1}{2}$ e electron	105.7 MeV -1 $\frac{1}{2}$ μ muon	1.777 GeV -1 $\frac{1}{2}$ τ tau
Bosons (Forces)			
			0 0 1 γ photon
			0 0 1 g gluon
			91.2 GeV 0 0 1 Z weak force
			80.4 GeV ± 1 1 W[±] weak force

PERCEPTION AND DIMENSION

Being Within

1 dimension



Perception
Level

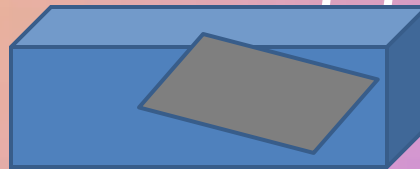
Points, 0
dimension

2 dimension



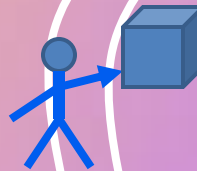
Line, 1 dimension

3 dimension



Plane, 2
dimension

4 dimension



Cube, 3
dimension

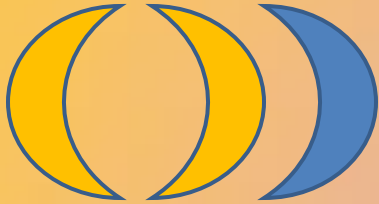
Mobius strip,
Twisting dimensions



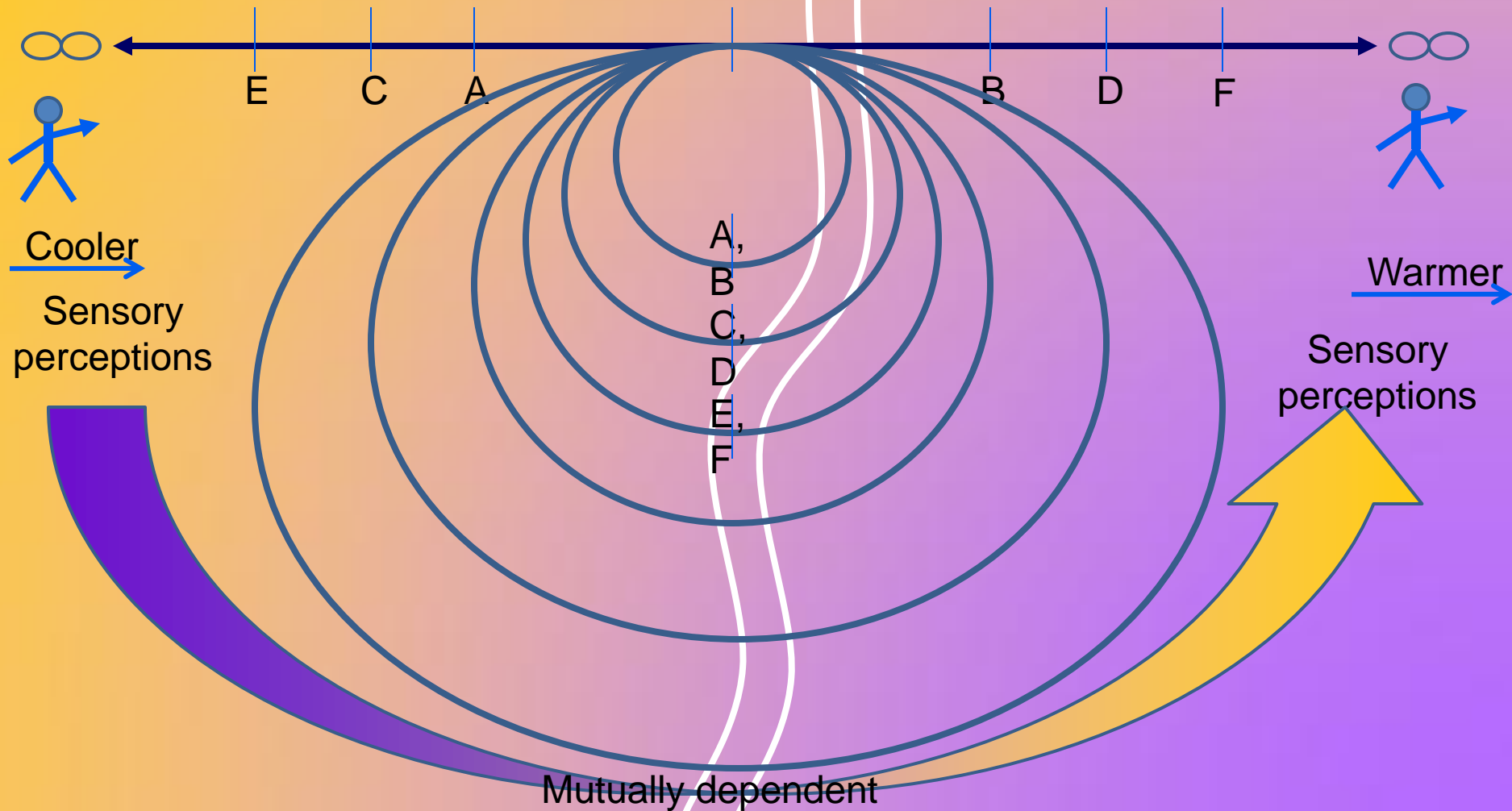
DNA is twisted

SYMMETRIC RELATIONSHIPS

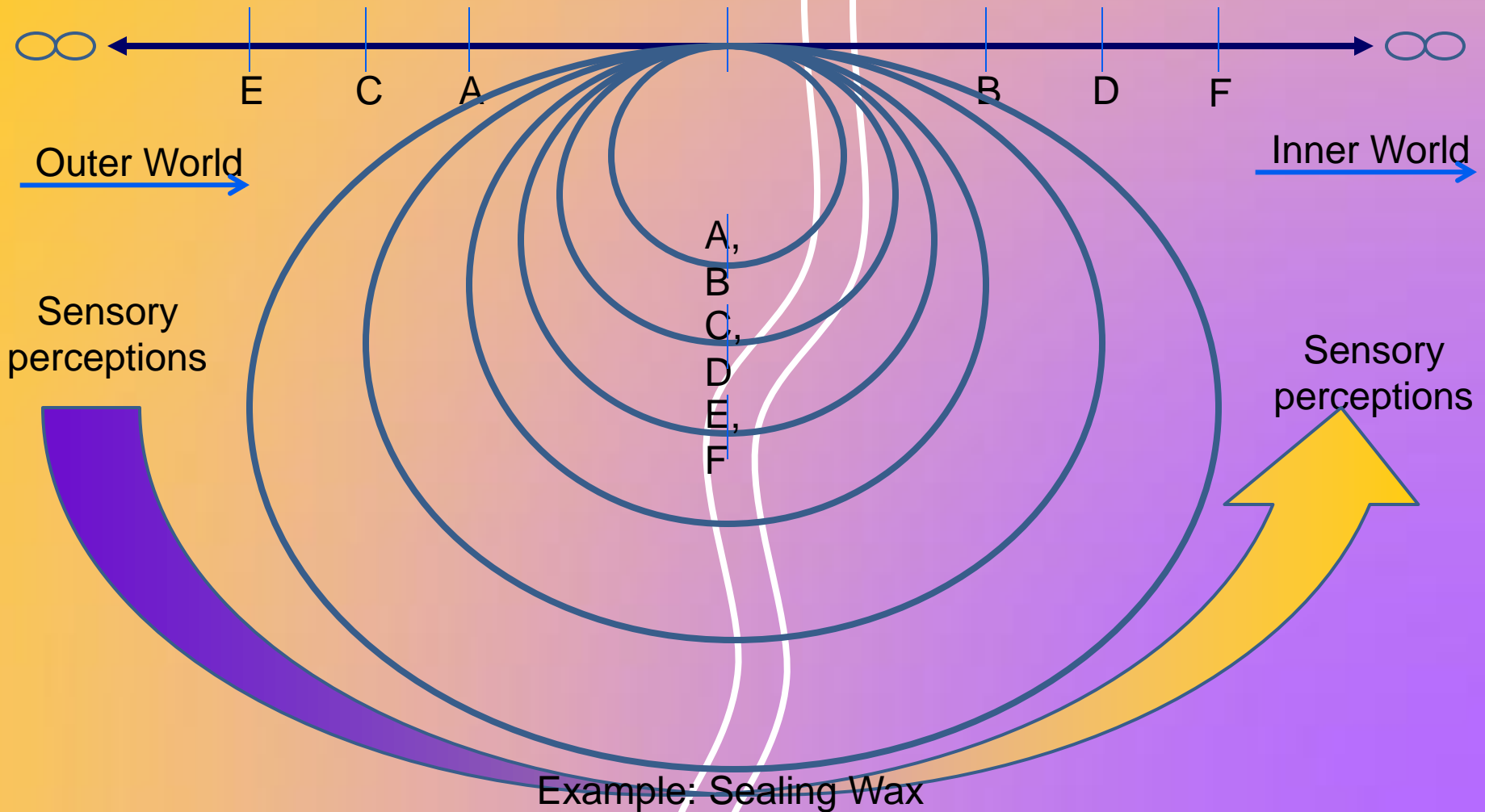
- Make these coincide:



A WALK ON THE WILD SIDE



A WALK ON THE WILD SIDE



WHAT HAPPENS TO THE 12 SENSES?

- Life, movement, balance
- Touch, smell, taste
- Thought, , ego
- Sight, ,
- Imagine being in a Virtual World
 - What is movement?, Life?

ATOMIC MEMORY

- “We are living now in the epoch of evolution that may be called the Mineral Epoch; and our task is to permeate this mineral world through and through with the spirit within us.
- “What you have done to the mineral world passes into the very atoms and does not vanish without a trace. Every atom bears a trace of your spirit and will carry this trace with it.
- “Whether an atom has at some time been in a machine, or has not been in a machine, is not a matter of indifference. The atom itself has undergone change as a result of having once been in a machine, and this change that you have wrought in the atom will never again be lost to it.” *The Atom as Coagulated Electricity, GA93*

STAMPING AN ATOM & CONSCIOUSNESS

- “Moreover, through your having changed the atom, through the fact that you have united the spirit in you with the mineral world, a permanent stamp has been made upon the general consciousness of mankind.
- “Everything that is performed without regard to self, that is connected with the interests of another, helps to intensify and to strengthen our consciousness in the future struggles for existence.
 - You build a church for others, not for yourself.
- “Whatever is achieved in the way of development of consciousness in the world does something to further the evolution of the consciousness of every single being, even if such a being has not actually worked at the development of his own consciousness.” *The Atom as Coagulated Electricity, GA93*

SPIRITUALIZING NATURE

- “What is now around you will become your inner life. You will take into yourselves what is now the mineral kingdom and it will become part of your inner being; similarly the plant kingdom. What surrounds you in nature will become your inner being.
- “What we ourselves prepare and make ready in the world — that is what will constitute our future existence.
- “The measure of what you yourself place into the world is the measure of the consciousness that the world will give back to you.
- “What we do with the mineral world, with the plant world, with the animal world, and with men, that we shall surely become.”
 - If you found a charitable institution or have contributed something to its foundation, what you have contributed will become an integral part of you.” *The Atom as Coagulated Electricity, GA93*

QUANTUM PHYSICS REASSESSED

- The atom is nothing but coagulated electricity.
 - Thought itself is composed of the same substance.
- Before the end of the fifth epoch of culture, science will have reached the stage where man will be able to penetrate into the atom itself.
- When the similarity of substance between the thought and the atom is once comprehended, the way to get hold of the forces contained in the atom will soon be discovered and then nothing will be inaccessible to certain methods of working.
 - A man standing here, let us say, will be able by pressing a button concealed in his pocket, to explode some object at a great distance —just as by setting up a wave-movement here and causing it to take a particular form at some other place, wireless telegraphy is possible, so what I have just indicated will be within man's power when the occult truth that thought and atom consist of the same substance is put into practical application.

WHAT IS COGNITION? $c^2 = m/e$

- Matching what we re-present with what the world presents
 - 4th dimension required to grasp 3rd
- If we heal the blind, will they see?
 - Is there an age after which we can no longer learn to see with our eyes?
- Quantum physics claims consciousness entwined with state after “superposition”
- Atom as coagulated electricity
- Thought as coagulated electricity
- Morality necessary to engineer (or else!)

SUBJECTIVE SENSATIONS

- Within: Color, sound, warmth, taste, smell
- What about Objective sensations, e.g. shape and *movement*? – these too are within
- But, does not the outer world then vanish?
- There must be a point where the outer world transforms into the inner – where is this?
 - How do these sensations become mental images?

STAGES OF CONSCIOUSNESS

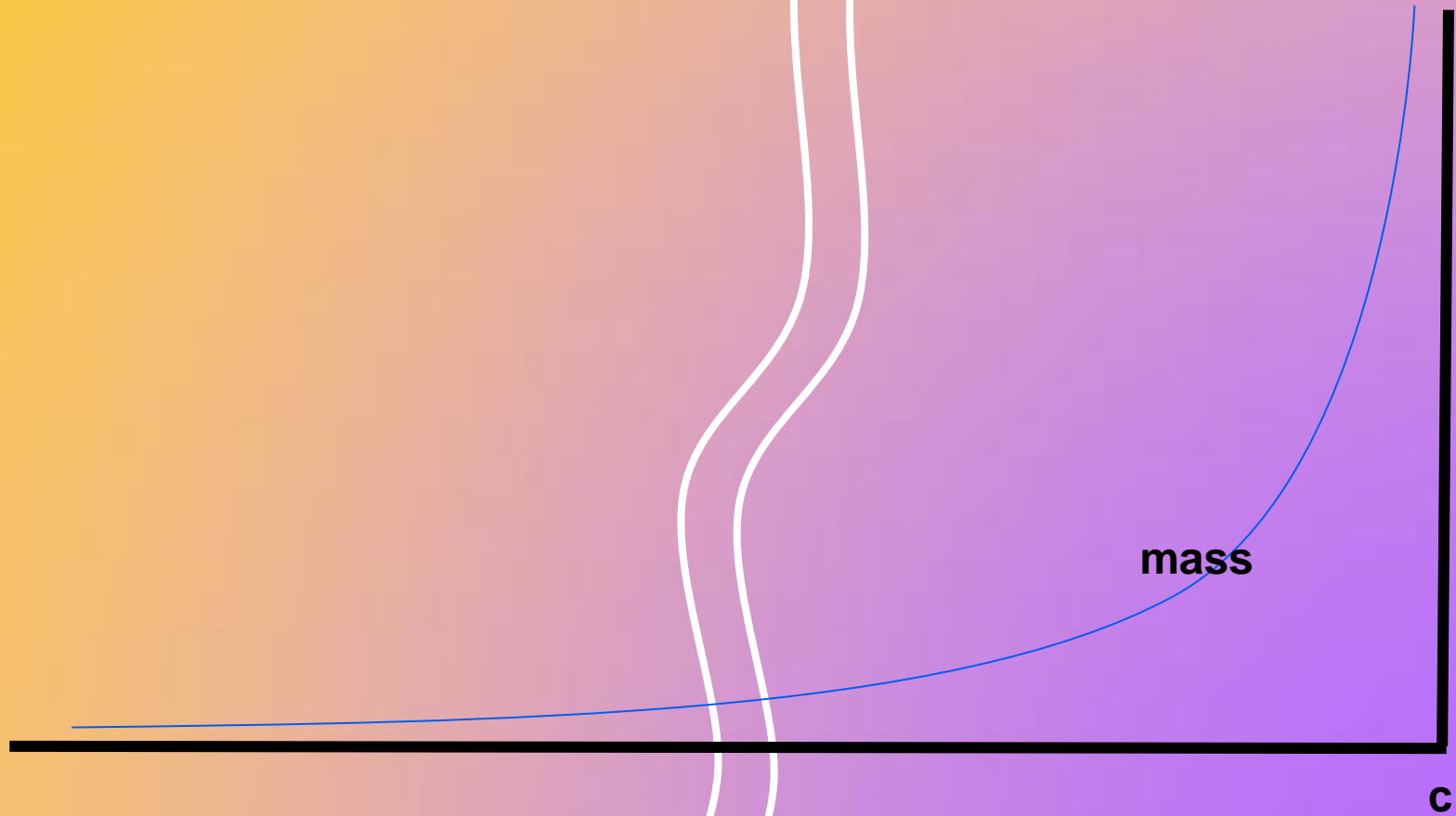
- Coma
- Dreamless sleep
- Dreaming
- Ordinary Thinking
- Imagination
- Inspiration
- Intuition

SHOULD WE TELL PHYSICISTS?

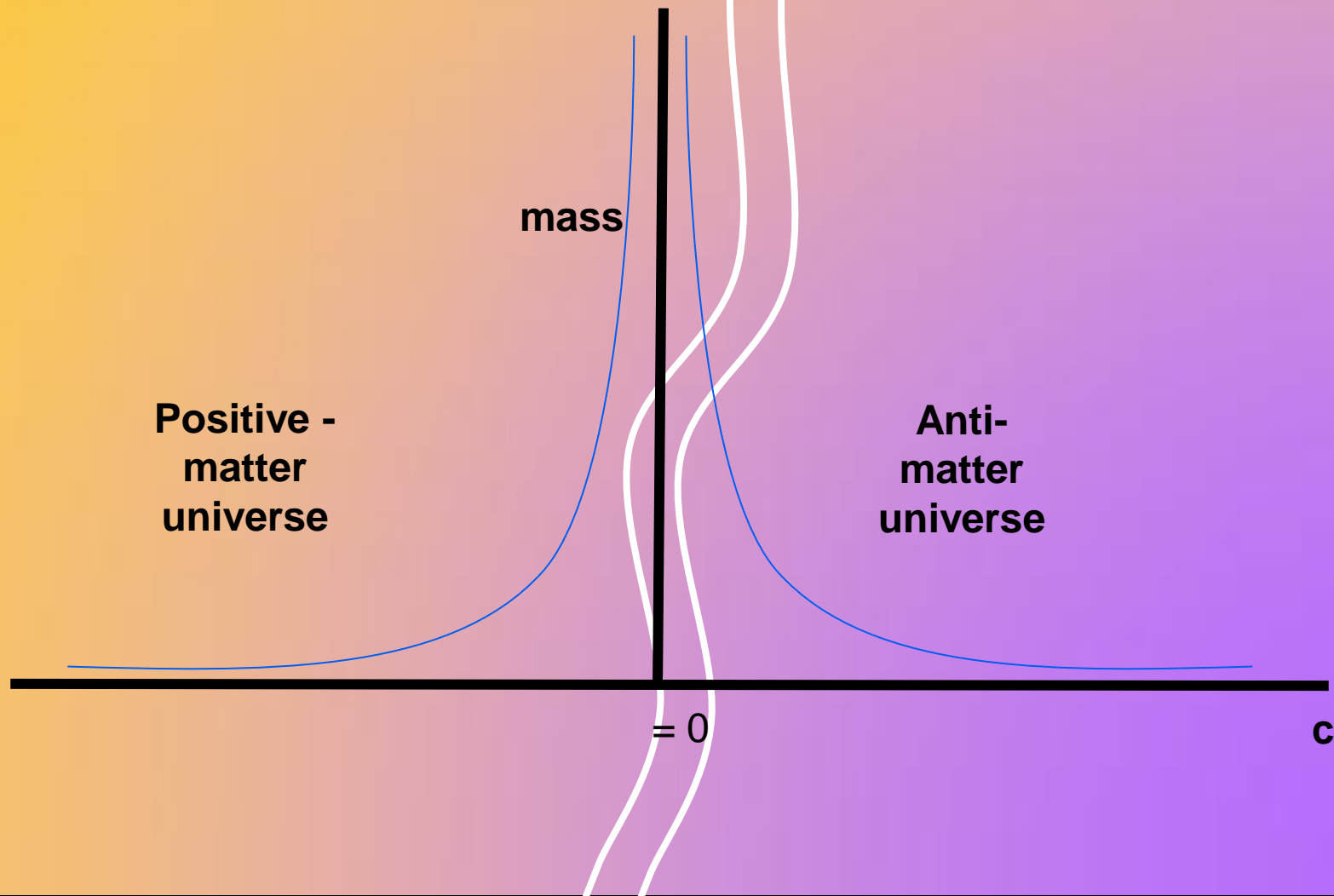
Rudolf Steiner:

- It is impossible to conceive what might happen in such circumstances if mankind has not, by then, reached selflessness. The attainment of selflessness alone will enable humanity to be kept from the brink of destruction.
- The downfall of our present epoch will be caused by lack of morality, by evil. In the War of All Against All, human beings will destroy each other in mutual strife.

EINSTEIN'S THEORY



LINNELL'S THEORY



FIELDS

- Magnetic Field
 - Iron filings to make visible
- Etheric Field
 - Water drops or crystallization
 - Picture forming methods

SUPER- AND SUB-NATURE

- Sub-Nature as “mirror” of Super-Nature
 - Light → Electricity
 - Tone → Magnetism
 - Life → Nuclear
- Relationship of sub to super?
 - Light/Photon to Electron
- Astral World
- Etheric World
 - Life
 - Tone/Chemical (forming)
 - Light
 - Warmth
- Elements
 - Fire
 - Air
 - Water
 - Earth
- Fallen Ethers
- Fallen Astral (*coming ?*)

ESOTERIC “SOLAR” LIFECYCLES

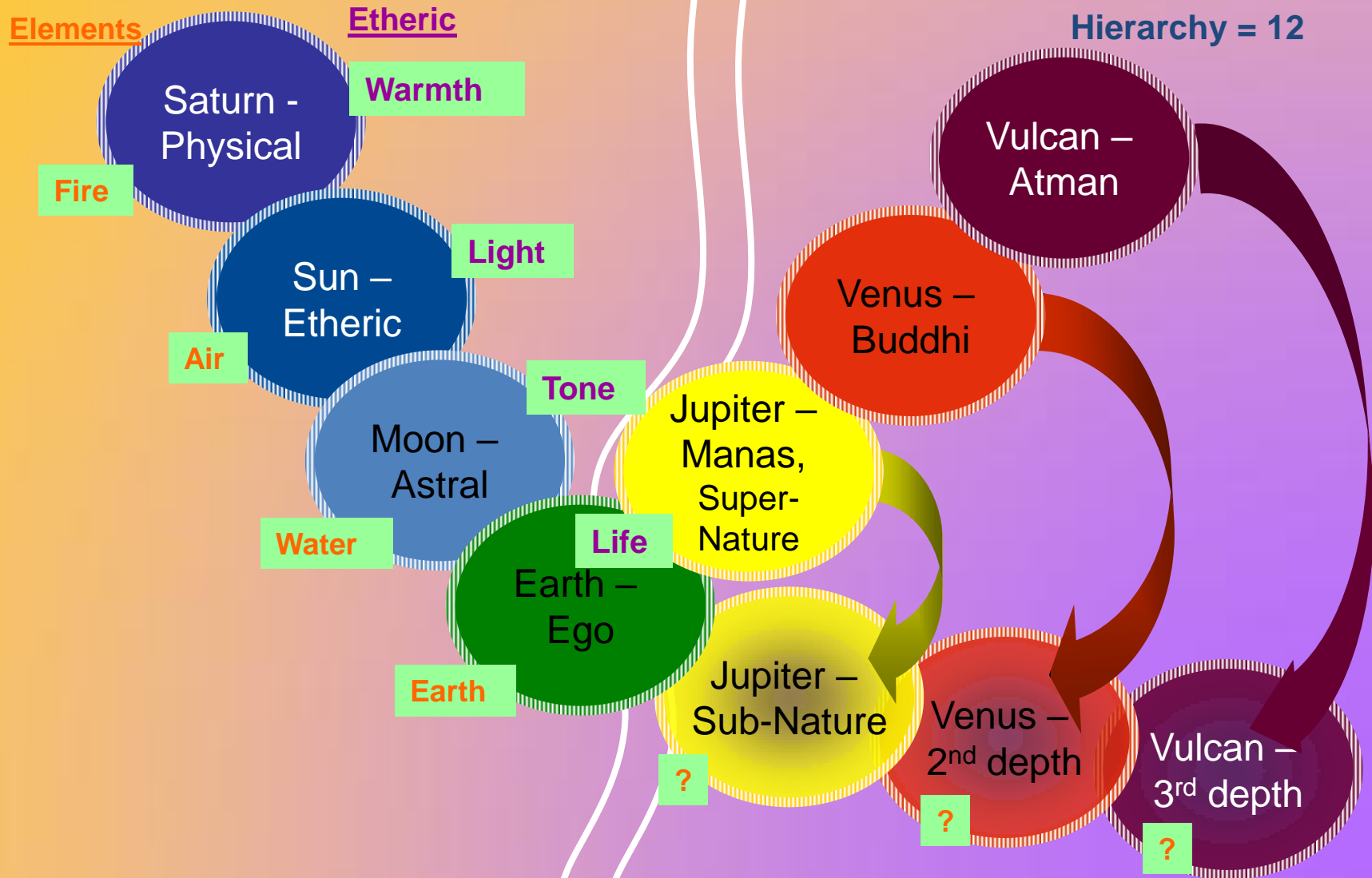
Solar Incarnations = Planetary Conditions

Beings at the Human Stage



- From Living Spirit to the lifeless
- From formless life to the formed

7 PLANETARY CONDITIONS



EVOLUTION OF SCIENCE

- Science in the sixth post-Atlantean epoch
 - “Men in the sixth epoch will only be considered to have real knowledge when they know that the spiritual pervades the world and that human souls must unite with the spiritual.”
 - “What is known as science today will be regarded as antiquated superstition.”
- Purpose of spiritual science
 - “We try to cultivate spiritual science in order to overcome materialism, to prepare the kind of science that must exist in the sixth epoch.”
 - Bringing Christ Impulse to science

Post Atlantean Epochs end after the 7th

THE BATTLE FOR THE ETHERIC REALM

- 1st step towards Spiritual Consciousness
 - Meditation
- Reincarnation: memory of past lives
- Intent to pull the Human down
 - Man and Nature as machines
 - Downplaying of morals, free-will, love, thinking
- Sub-Nature and Super-Nature
 - Role Humanity must fulfill
 - Attachment of a 2nd Being
- Logos appearing within the Etheric
 - Reflection of love in the etheric body
 - Etheric technology revealed

WHAT IS HAPPENING IN SCIENCE?

- QED: The Strange Theory of Light and Matter, Richard Feynman
- Quantum: Einstein, Bohr, and the Great Debate about the Nature of Reality, Manjit Kumar
- Quantum Enigma: Physics Encounters Consciousness, Bruce Rosenblum and Fred Kuttner
- David Bohm
- The Physics of Consciousness: The Quantum Mind and the Meaning of Life, Evan Walker
- Nothing I See Means Anything: Quantum Questions, Quantum Answers, David Parrish
- Entangled Minds: Extrasensory Experiences in a Quantum Reality, Dean Radin
 - The Conscious Universe, Dean Radin
- Quantum Physics: Illusion or Reality?, Alastair I. M. Rae
- Quantum Non-Locality and Relativity, Tim Maudlin
- The God Theory: Universes, Zero-Point Fields and What's Behind it All, Bernard Haisch
 - The Purpose-Guided Universe: Believing In Einstein, Darwin, and God , B. Haisch
- God's Universe, Owen Gingerich
- Biocentrism: How Life and Consciousness are the Keys to Understanding the True Nature of the Universe, Bob Berman and Robert Lanza

MORE GOOD READING MATERIAL

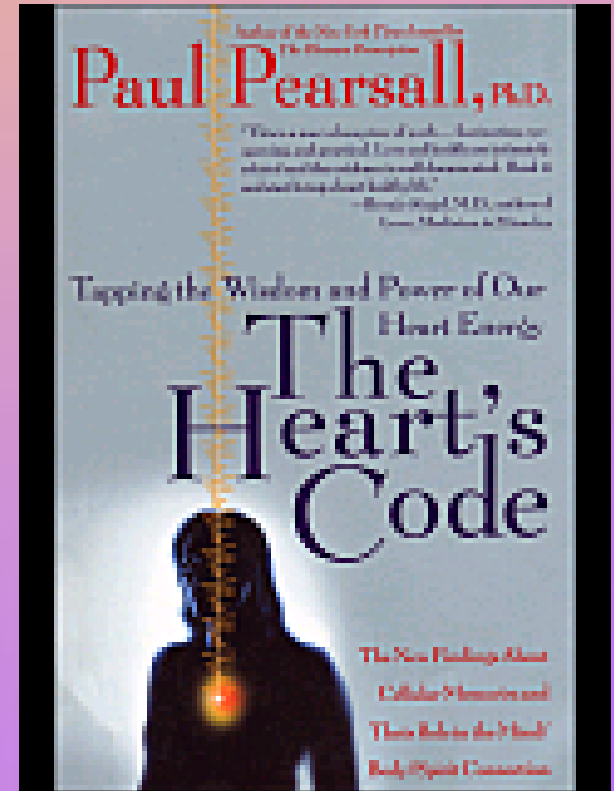
- A. N. Whitehead. Process and Reality (Corrected Edition). Edited by Griffin, David Ray and Sherburne, Donald W. Free Press. 1978.
- A. N. Whitehead. Science and the Modern World. Free Press. 1967.
- Sherburne, Donald W. (Editor) A Key to Whitehead's Process and Reality. McMillan Company. 1966.
- The Ghost in the Atom. Davies, P.C.W. and Brown, J.R. (Editors). Cambridge University Press. 1986.
- Philosophical Consequences of Quantum Theory: Reflections on Bell's Theorem. Cushing, James T. and McMullin, Ernan. (Editors). University of Notre Dame Press. 1989.
- Rae, Alastair. Quantum Physics: Illusion or Reality. Cambridge University Press. 1986.
- Jauch, J. M. Are Quanta Real?. Indiana University Press. 1973.
- Kafatos, Menas and Nadeau, Robert. The Conscious Universe: Part and Whole in Modern Physical Theory. Springer-Verlag New York, Inc. 1990.
- Shimony, Abner. Search for a Naturalistic World View: Volume II, Natural Science and Metaphysics. Cambridge University Press. 1993.

ANTHROPIC COSMOLOGICAL PRINCIPLE

- “The Universe must have those properties which allow life to develop within it at some stage in it’s history.”
 - http://www.physics.sfsu.edu/~lwilliam/sota/anth/anthropic_principle_index.html

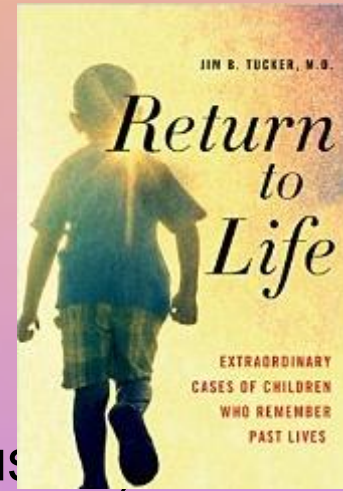
HEART TRANSPLANTS INHERIT MEMORY

- Dr. Paul Pearsall contends that the heart thinks, feels, remembers, and communicates with other hearts
- An 8-yr. girl received the heart of a 10-yr. girl who had been murdered.
- Psychiatrist: girl said she knew who the murderer was.
- Police notified who were able to track him down by following the girl's instructions and convict him on the evidence she had provided
- Clues about: the time, the weapon, the place, the clothes he wore, etc.
- Everything the girl said was true
- Does the transplanted heart take with it its etheric heart and its memories?



REINCARNATION?

- <http://www.fox8.com/wjw-reincarnation-txt,0,1190900.story>
- <http://www.reversespins.com/proofofreincarnation.html>
- 11 year old James Leininger – (previously James Huston)
- The most documented case of reincarnation
- Recalls over 50 memories from past life
- World War II pilot's family believes it is their reincarnated brother based on child's memories
- See book "Soul Survivor"



MORALITY?

- When the cosmos is 'finished' will it have mattered that people acted out of higher morals?

CONCLUSIONS

- The atomic is not particles, rather fields
- Waves move on fields
- Fields are not comprised of particles, rather the four ethers
- As electric field and magnetic field have a soft boundary, so do etheric fields. e.g. red light into warmth, blue light into chemical
- Physical reality (classical physics) begins with molecules – quantum boundary here also soft

A decorative white wavy line that starts at the top center, curves to the left, then back to the center, then to the right, and finally back to the center at the bottom. It has a fluid, organic feel.

THE END

QUOTES

- In the experiments about atomic events we have to do with things and facts, the phenomena that are just as real as any phenomena of daily life. But the atoms or elementary particles themselves *are not real*; they form a world of potentialities and possibilities rather than one of things or facts. – Heisenberg
- It is wrong to think that the task of physics is to find out how Nature *is*. Physics concerns what we can say about Nature. – Neils Bohr

INTERESTING FACTS

- Niels Bohr adopted the yin yang symbol as part of his family coat of arms when he was knighted in 1947
- Werner Heisenberg visited Tagore to discuss Indian philosophy
- Fritjof Capra *The Tao of Physics*