What the #$*! Do We Know!? (also written What in$h #$*! De $ιΣ ($know!? and What the $#$*! Do We Know!? is a controversial 2004 film that combines documentary interviews and a fictional narrative to posit a connection between science and spirituality based upon the Ramtha's School of Enlightenment of JZ Knight/Ramtha, of whom the three directors are devotees. There is also an extended 2006 version, What the Bleep!?: Down the Rabbit Hole.

The topics discussed in What the Bleep Do We Know!? include neuroscience, quantum physics, psychology, epistemology, ontology, metaphysics, magical thinking and spirituality. The film features interviews with individuals presented as experts in science and spirituality, interspersed with the story of a deaf photographer as she struggles with her situation. Computer-animated graphics are featured heavily in the film. The film has received widespread criticism from the scientific community. Physicists, in particular, say that the film misrepresents the meaning of various principles of quantum mechanics and is pseudoscience.
Contents

1 Synopsis
2 Promotion
3 Reviews of the movie
4 Featured individuals
5 Controversial aspects of the film
   5.1 Quantum physics
   5.2 Experts
   5.3 Statements about quantum physics
6 Controversial studies
   6.1 Transcendental Meditation study
   6.2 Water crystals
7 Crew
   7.1 Filmmakers
   7.2 Cast
   7.2.1 Physicists
   7.2.2 Neurologists, anesthesiologists and physicians
   7.2.3 Molecular biology
   7.2.4 Spiritual teachers, mystics and scholars
   7.2.5 Visual effects
8 Visual effects
9 Awards
10 See also
11 References
12 External links
   12.1 Movie-related links
   12.2 Other related topics

Synopsis

Filmed on location in Portland, Oregon, What the Bleep Do We Know (according to the makers of the film, "Bleep" is a "bowdlerization of "fuck"; William Arntz has referred to the film as "WTF/WDWK" in a message to Bleeps. "Street Team") blends a fictional story line, documentary-style discussion, and computer animation to present a view of the physical universe and human life within it, with purported connections to neuroscience and quantum physics. Some ideas discussed in the film are:

- The universe is best seen as constructed from thought (or ideas) rather than from substance (see idealism);
- What has long been considered "empty space" is anything but empty (see vacuum energy);
- Our beliefs about who we are and what is real are not simply observations, but rather form ourselves and our realities (see solipsism);
- Peptides manufactured in the brain can cause a bodily reaction to an emotion, resulting in a new perspective to old adages such as "think positively" and "be careful what you wish for."

In the documentary part, Amanda, a deaf photographer (played by Marlee Matlin) acts as the viewer's avatar as she experiences her life from startlingly new and different perspectives.

In the documentary part of the film, a number of purported scientific experts in quantum physics, biology, medicine, psychiatry, and theology discuss the roots and meaning of Amanda's experiences. However, viewers are not told the credentials of the experts until the credits at the end of the film. The comments of the scientific experts converge on a single theme: "We all create our own reality." Authors arguing related viewpoints include Jane Roberts (the Seth books), Richard Bach (Jonathan Livingston Seagull and Illusions), the writings of Abraham-Hicks, Deepak Chopra, Wayne Dyer, and David R. Hawkins.[citation needed]

Promotion

Lacking the funding and resources of the typical Hollywood film, the filmmakers relied on guerrilla marketing first to get the film into theaters, then to attract audiences. This has led to accusations, both formal and informal, against the film's proponents of spamming online message boards and forums with many thinly veiled promotional posts. Initially, the film was released in only two theaters: one in Yelm, Washington (the home of the producers), and the other (The Bagdad Theater) in Portland, Oregon, where it was filmed. Within several weeks, it was in a dozen more theaters (mostly in the western United States), and within six months it had made its way into 200 theaters from coast to coast.

Reviews of the movie

The critics offered fairly mixed reviews as seen on the movie review website Rotten Tomatoes.[4] Dave Kehr of the New York Times described in his review of the movie, the "transition from quantum mechanics to cognitive therapy" as "plausible", but went on to state that "the subsequent leap—from cognitive therapy into large, hazy spiritual beliefs—isn't as effectively executed. Suddenly people who were talking about subatomic particles are alluding to alternate universes and cosmic forces, all of which can be harnessed in the interest of making Ms. Matlin's character feel better about her thighs."[4] [POV]

Featured individuals

- John Hagelin was the head of the 1993 Transcendental Meditation project in Washington, D.C. (The Washington TM study) mentioned in the film, but Hagelin was never identified as one of its authors. He was awarded an In Nobel Prize which honors achievements that "first make people laugh, and then make them think,"[3] for this project. He is chairman of the Physics
Department at Maharishi International University in Fairfield, Iowa. The University was founded by the Maharishi Mahesh Yogi, the Indian guru who vauluted to fame after becoming the spiritual advisor to the Beatles.

- Stuart Hameroff, an anesthesiologist, author, and associate director of the Center for Consciousness Studies at the University of Arizona. He has worked with Oxford mathematician Roger Penrose, on speculative quantum theory of consciousness.
- JZ Knight/Ramtha appears frequently in the film as a scientist or spiritual teacher. By the end of the film, during the credits, she is identified as the spirit "Ramtha" who is being "channeled" by "JZ Knight". Knight was born Judith Darlene Hampton in Roswell, New Mexico. She claims to channel a spirit she calls Ramtha, "a 35,000 year-old warrior spirit from the lost continent of Lemuria and one of the Ascended Masters." (Knight says she speaks with an accent because English is not Ramtha's first language.)
- Candace Pert wrote the book Molecules of Emotion in 1997 (foreword written by Deepak Chopra) where she espoused views very similar to those of the film. Some aspects of the film appeared to be based on her book. For example, the first ten minutes of the movie can be summarized by a quote from pages 146–148 of Molecules of Emotion where she writes:

No objective reality! ... Emotions are constantly regulating what we experience as "reality." The decision about what sensory information travels to your brain and what gets filtered depends on what signals the receptors are receiving from the peptides ... For example, when the tall European ships first approached the early Native Americans, it was such an "impossible" vision in their reality that their highly filtered perceptions couldn't register what was happening, and they literally failed to "see" the ships.

Another point in the movie can be well summarized by page 285, where she writes:

The tendency to ignore emotions is oldthink, a remnant of the still-reigning paradigm that keeps us focused on the material level of health, the physicality of it. But the emotions are a key element in the self-care because they allow us to enter into the bodymind's conversation. By getting in touch with our emotions, both by listening to them and by directing them through the psychosomatic network, we gain access to the healing wisdom that is everyone's natural biological right.

- Fred Alan Wolf, a doctor of philosophy in theoretical physics, who recently wrote The Yoga of Time Travel: How the Mind Can Defeat Time. (Note: he says he is also known by the name "Captain Quantum"—an animated character that was created for the movie but not used in the released version.) He is also author of The Eagle's Quest, The Dreaming Universe and The Spiritual Universe.
- David Albert, a philosopher of physics and professor at Columbia University, speaks frequently throughout the movie. While it may appear as though he supports the ideas that are presented in the movie, according to a Popular Science article, he is "outraged at the final product." The article states that Albert granted the filmmakers a near-four hour interview about quantum mechanics being unrelated to consciousness or spirituality. His interview was then edited and incorporated into the film in a way that he claims misrepresented his views. In the article, Albert also expresses his feelings of gullibility after having been "taken" by the filmmakers. Although Albert is listed as a scientist taking part in the sequel to What the Bleep, called Down the Rabbit Hole, this sequel is a "director's cut", composed of extra footage from the filming of the first movie.

Other interviewees in the film include Joe Dispenza, a chiropractor, author, and a devotee of Ramtha's School of Enlightenment; Miceal Ledwith, author and former professor of theology at Maynooth College in Ireland; Daniel Monti, physician and director of the Mind-Body Medicine Program at Thomas Jefferson University; Jeffrey Satinover, psychiatrist, author, and member of the scientific advisory committee of the National Association for Research & Therapy of Homosexuality (promoting reparative therapy); and William Tiller, Professor Emeritus of Material Science and Engineering at Stanford University, and author of over 250 scientific publications.

Amit Goswami and William Tiller are both employed by the Institute of Noetic Sciences.

Controversial aspects of the film

### Factual errors

- At the beginning of the movie, it is stated that humans only use 10% of their brains. This is incorrect: while the majority of the brain may not be active at any one moment, all of it is essential for normal function.
- The movie states humans are "90% water" when in fact newborns have around 78% body water, 1-year-olds around 65%, adult men about 60%, and adult women around 55%.
- The movie also relates a story about Native Americans being unable to see Christopher Columbus' ships. However, there is no mention of this in any of the journals of those voyages, and the oral traditions of the local population were lost in the following 150 years of Spanish rule. The story in the film may be a garbled and mis-interpreted version of an incident described in Carl Sagan's Cosmos, Episode XIII describes an oral retelling of how the Tlingit encountered the La Pérouse expedition in the 1780s. The Tlingit were afraid to look directly at the ships at first, because they imagined that the ship and its sails were manifestations of Raven, who might turn them to stone. One of their party was an old man who was nearly blind, who decided to take a long look. Eventually stood the vessels and their crew for what they were.
- The animated sequence showing visual electrical signals moving directly across synaptoclast is not entirely incorrect but may be misleading. Signals are carried between neurons chemically via neurotransmitters; signals are propagated electrically only within individual neurons and via gap junctions.
- It is also claimed in the movie that 20 amino acids are created in the human body. However, only 12 can be synthesized by humans; the remaining 8 amino acids are essential and must be acquired through food consumption or dietary supplementation.
Experts
The filmmakers assembled a panel to make their point by discussing some facts, many opinions, and imaginative examples. The most severe criticism of this film is that the ideas and theories presented are based upon the beliefs of J.Z Knight, a medium who claims to channel a "Lemurian" warrior Ramtha who raised an army and fought against the Atlantians over 35,000 years ago.

The film presents information given by people who support the film's underlying philosophy, but, by and large, those people have previously been involved in promoting similar ideas. Arguably, their presence in the film represents the filmmaker's efforts to find people who are sympathetic to the film's ideas and largely the people in the film do not represent the general scientific community's views since they do not use the scientific method in their experiments, nor do they present their experiments in peer-reviewed journals.

David Albert, a professor and the director of the Philosophical Foundations of Physics program at Columbia University, states that the film completely misrepresented his views.

Dr. Joseph Dispenza is a teacher at Ramtha's School of Enlightenment as is Amit Goswami, Mgr. Miceal Ledwith, and J.Z Knight, who claims to channel Ramtha.

Statements about quantum physics
Essential aspects of quantum mechanics are bypassed in the movie. Quantum mechanics deals with small systems, and quantum effects (especially Heisenberg's Uncertainty Principle) are applicable only to matter on the scale of the de Broglie Wavelength. The movie exploits these effects by falsely implying that they (especially a wavefunction associated with an object and probability calculations concerning this object) are applicable to everyday objects, e.g. basketballs, humans, or fountains.

As the purported experts speak throughout the movie, they make several references to concepts, ideas, alleged facts about quantum physics and other specific items. However, few of the scientists involved are actually professional physicists doing research in quantum mechanics, and one of those that does do such research, David Albert, has complained that his views were deliberately misrepresented [1].

The movie also fails to explain precisely how the theory of quantum mechanics actually proves any of the mystical or religious teachings found in the film. Statements from physicists are made which are then intercut with statements from medical doctors, people who have created their own religion, and others. No logical argument connecting the findings of quantum mechanics with the movie's core message is offered.

Most of the film's appeals to quantum mechanics are wildly inconsistent with what physicists have discovered from quantum mechanics. The idea that the measurement (observing capacities) of conscious observers creates reality is implied to be a widely held position in the Copenhagen interpretation of quantum physics. However, the movie's interpretation of this position is far from what most physicists actually believe.

Some of the film's experts, particularly Amit Goswami, repeatedly refer to the process of measurement and observation in quantum mechanics and speculate about the relation between consciousness and the material world. They claim, for example, that human beings have the capability to create their own reality; Dr. Miceal Ledwith even asserts that human beings have the capability of walking on water. Evidence is not offered.

In contrast, physicists do not believe this ability to freely choose the future to be true in anything other than a metaphorical sense. The facts of measurement and observation are far more prosaic. Specifically, if a system is in a state described by a wave function, the measurement process affects the state in a non-deterministic, but statistically predictable way. In particular, after a measurement is applied, the state description by a single wave function may be destroyed, being replaced by a statistical ensemble of wave functions. The nature of measurement operations in quantum physics can be described using various mathematical formalisms such as the relative state formulation or its equivalent form the many-worlds interpretation. Noted physicists such as David Deutsch do take this interpretation quite literally.

Physicist Heinz Pagels, in The Cosmic Code, writes:

Some recent popularizers of Bell's work when confronted with Bell's inequality have gone on to claim that telepathy is verified or the mystical notion that all parts of the universe are instantaneously interconnected is vindicated. Others assert that this implies communication faster than the speed of light. That is rubbish; the quantum theory and Bell's inequality imply nothing of this kind. Individuals who make such claims have substituted a wish-fulfilling fantasy for understanding. If we closely examine Bell's experiment we will see a bit of sleight of hand by the God that plays dice which rules out actual nonlocal influences. Just as we think we have captured a really weird beast — like acausal influences — it slips out of our grasp. The slippery property of quantum reality is again manifested.

Controversial studies

**TRANSCENDENTAL MEDITATION STUDY**
As described in the film, the study involved using 4,000 people in June and July of 1993 to practice the Transcendental Meditation and TM-Sidhi programs to attempt to reduce violent crime in Washington, D.C. (which has one of the highest per-capita homicide rates in the United States) [16]. By counting the number of homicides, rapes, and assaults (HRA), the study came to the conclusion that group practice of the TM-Sidhi program reduced the violent crime rate, HRA, by 23%. Based on the numbers reported in the study, the HRA crime rate was about 30% higher in 1993 than the average crime rate between 1988–1992. The HRA crime rate showed a decline around the middle of the two month period where the TM-Sidhi program was practiced and remained relatively low by
1993 standards) for several months afterward, though the decline was small enough that the reduced HRA crime rate was still about 10–15% higher than average at that time of year.

The results of the TM-Sidhi study were first reported in 1994 by the Institute of Science, Technology and Public Policy, part of the Maharishi University of Management founded by Maharishi Mahesh. The study was published in 1999 in the peer-reviewed journal Social Indicators Research.[17]

This experiment in meditation won John Hagelin the 1994 Ig Nobel Prize for Peace, an award for work "that cannot, or should not, be reproduced." (This award is also billed as being granted to work that "Makes people laugh, then makes them think").[18]

WATER CRYSTALS

Masaru Emoto’s work (The Hidden Messages in Water) plays a prominent role in a scene set in a light-rail tunnel, where the main character happens upon a presentation of displays showing images of water crystals. In the movie, “before” and “after” photographs of water are presented as evidence that specific words written on pieces of paper and affixed to different containers of water have the power to transform the water into being able to freeze into beautiful crystalline shapes instead of ugly crystalline shapes.[19]

Emoto’s work is criticized as being more artistic than scientific. His doctoral certification is on alternative medicine from an unaccredited institution.[20] His work has never been subjected to peer review, and he does not utilize double blind methodology. Emoto also claims that polluted water does not crystallize. Depending on the properties of the pollutant, heavily polluted water will still form crystals, though the crystals may contain more crystallographic defects than pure water would. These changes in the way the crystals form can be readily explained using basic chemistry and physics.[21]

Emoto appears to have arbitrarily decided what constitutes a “brilliant crystal” and an “incomplete crystal.” James Randi has characterized Emoto’s work as nonsense, pseudoscience and quackery.[21]

Trivia

The church in which the wedding takes place is St. Patrick’s Catholic Church, at the corner of 17th and Savier in northwest Portland, Oregon. The church is not a “Polish” parish, as was shown in the movie. It was built in 1888 and has a historically Irish congregation.

Many of the backgrounds for the interviews are from the University of Washington, Seattle. Most notably, the grand staircase and reading room of Suzzallo Library, the quad and in front of Denny Hall.

Crew

Filmmakers

William Arntz: Producer, Director, Screenwriter
Betsy Chasse: Producer, Director, Screenwriter
Mark Vicente: Director, Director of Photography

Cast

Marlee Matlin as Amanda
Elaine Hendrix as Jennifer
Barry Newman as Frank
Robert Bailey as Reggie
John Ross Bowie as Elliot
Armin Shimerman as Man
Robert Blanche as Bob
Jeff S. Dodge as Extra (on train)

PHYSICISTS

William A. Tiller
Amit Goswami
John Hagelin
Fred Alan Wolf
David Albert

NEUROLOGISTS, ANESTHESIOLOGISTS AND PHYSICIANS

Dr. Masaru Emoto (certified by the Open International University for Alternative Medicine in Calcutta, India as a Doctor of Alternative Medicine—a one year program)
Stuart Hameroff M.D.
Dr. Jeffrey Satinover
Andrew B. Newberg, M.D.
Dr. Daniel Monti
Dr. Joseph Dispenza

MOLECULAR BIOLOGY

Dr. Candace Pert

SPIRITUAL TEACHERS, MYSTICS AND SCHOLARS

JZ Knight speaking as Ramtha
Dr. Miceal Ledwith

VISUAL EFFECTS

Evan Jacobs – visual effects supervisor
Atomic Visual Effects – brain animation
Mr. X Inc – cells animation
Lost Boys Studios – basketball sequence, rabbit-hole effects
Visual effects

The film includes over three hundred visual effects shots—a hefty shot count for an independent, privately-financed film. Budget constraints required an international effort with the work being split between Toronto-based Mr. X Inc., Lost Boys Studios in Vancouver and Atomic Visual Effects in Cape Town, South Africa.

The visual effects team, led by visual effects supervisor Evan Jacobs, worked closely with the filmmakers to create visual metaphors that would capture the essence of the quantum concepts while still being attractive. The script required representations of effects such as a forest of nerve cells in the brain, a sea of subatomic particles, an elaborate dance sequence involving human cells of emotion, and the concept of quantum superposition.

Awards

- Awards given in 2004:
  - Ashland Independent Film Festival – Best Documentary
  - DCIFF – DC Independent Film Festival – Grand Jury Documentary Award
  - Maui Film Festival – Audience Choice Award – Best Hybrid Documentary
  - Houston World Fest – Platinum Remi Award
  - Sedona International Film Festival – Audience Choice Award, Most Thought-Provoking Film.
  - Pigasus Award – Media outlet that reported as fact the most outrageous paranormal claim.

See also

- The Absolute
- Absolute Infinite
- Conceptions of God
- Cosmos
- Consciousness causes collapse
- God
- God complex
- CSICOP
- Do Jump who performed in this movie.
- List of pseudosciences and pseudoscientific concepts
- Many-worlds interpretation
- The Matrix
- Meaning of life
- Oneness (concept)
- Parallel universe
- Philosophy of science
- Protoscience
- Pseudoscience
- Quantum mechanics
- Quantum metaphysics
- Ramtha
- Ramtha's School of Enlightenment
- The Secret (2006 film)
- The Tao of Physics
- Fred Alan Wolf

References

4. ^ http://www.rottentomatoes.com/m/what_the__do_we_know/
20. ^ The Open International University for Alternative Medicine. altmeduniversity.net.
21. ^ [1][2]
22. ^ Cinetex article detailing the visual effects for the film

External links
What the Bleep Do We Know? is a mixture of talking heads, animation and storytelling, a documentary/fairy tale combo the uses one person's life and disappointments to illustrate the science of possibility. What the Bleep Do We Know is a film that connects the mind, the body, the emotions and the spirit, but it’s not some airy-fairy undertaking or cultish outing. What the Bleep Do We Know is not afraid of the "Who are we?" "Why are we here?" questions of the universe; "We still have this ugly, backwater, superstitious idea of God," one participant begins, and you can only hope someone will take Mel Gibson to see this movie.
Part narrative, part documentary, and part animation, What the #$*! Do We Know?! was filmed with the intent of expressing the neurological processes and so called. Critic Reviews for What the Bleep Do We Know!? All Critics (77) | Top Critics (26) | DVD (5). Shot and acted with all the skill of a late-night infomercial.