

A Skeptic Looks at Christian Science

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A Quote from Bertrand Russell

I wish to propose for the reader's favourable consideration a doctrine which may, I fear, appear wildly paradoxical and subversive. The doctrine in question is this: that it is undesirable to believe a proposition when there is no ground whatever for supposing it true.

I must of course admit that if such an opinion became common it would completely transform our social life and our political system; since both are at present faultless, this must weigh against it.

— From his *Sceptical Essays*

What is Modern Skepticism?

- Devoted to scientific examination of extraordinary claims, particular involving paranormal events.
- The skeptic does not necessarily disbelieve claims of ESP, dowsing, astrology, UFO's, ghosts, poltergeists, channeling, faith healing, near-death experiences, etc., but believes that such claims are and should be subject to scientific inquiry.
- The more unusual a claim is, the more evidence must be presented to support that claim.
- This credo of the modern skeptic movement can be briefly summarized as

**Extraordinary claims demand
extraordinary proof.**

- Famous modern skeptics include
 - James Randi (The Amazing Randi), a professional magician and MacArthur prize winner
 - Martin Gardner, former Scientific American columnist and author of many books.
- Magazines such as the *Skeptical Inquirer* and *Skeptic* represent the skeptical point of view.

What is Christian Science?

- Christian Science is a religion founded in 1879 by Mary Baker Eddy (1821–1910).
- Its main religious text is a book written by Mrs. Eddy entitled *Science and Health with Key to the Scriptures*.
- Christian Science is in direct opposition to scientific materialism, the belief that physical matter represents the world's underlying reality.
- In Christian Science there is nothing but divine Mind, and everything derives from Mind.
- “Man is not matter...” (*Science and Health*, p. 475)
- To a Christian Science, sickness is a manifestation of incorrect belief by mortal mind.
- Once a sick person understands that fact, he or she will be healed.
- In particular, then, Christian Scientists reject the germ theory of disease.
- Christian Scientists also deny the theory of biological evolution.

Christian Science Demographics (from Stark)

- 42% of adult US Christian Scientists are college graduates
- An additional 24% had some college education
- Only 8% did not complete high school
- 16% of Christian Science households earned more than US \$50,000 in 1990, well above the national average
- 30% over 65 (about 3 times the percentage of the general population)
- Overwhelmingly female (70%)
- Overwhelmingly caucasian

Christian Science's Health Claims

- “[F]alse beliefs are the procuring cause of all sin and disease.” (*Science and Health*, p. 171)
- *All* sickness can be cured through “heartfelt but disciplined prayer” .
- Relying on medicine is a sin because it is “anti-Christian” . (*Science and Health*, p. 169)
- Indeed, physicians themselves actually *cause* disease! They “are flooding the world with diseases, because they are ignorant that the human mind and body are myths” . (*Science and Health*, pp. 150–151)
- “[T]he ordinary physician is liable to increase disease with his own mind...” (*Science and Health*, p. 159)
- Drugs do not work. “[A] drug has no efficacy of its own, but borrows its power from human faith and belief. The drug does nothing, because it has no intelligence.” (*Science and Health*, p. 12)
- Christian Science healing is a “science” which has been empirically demonstrated beyond doubt.

Mrs. Eddy's Checkered Career

- A diary kept by Calvin Frye, a household servant of Mrs. Eddy, reveals that she was addicted to morphine, and in fact had a lifelong dependence on morphine pills and shots.
- In the last half of her life, Mrs. Eddy developed symptoms of paranoia, claiming that her enemies were attempting to attack her with “malicious animal magnetism” (MAM).
 - She once wrote, “Mother never has and cannot be mistaken in her diagnosis of MAM.”
 - In the second and third editions of *Science and Health*, she demanded that courts recognize crimes committed by MAM.
 - She sued a former associate for using MAM to inflict “great suffering of body and mind and spinal pains and neuralgia and a temporary suspension of mind” on one of her followers.
- She plagiarized material from many sources, particularly Thomas Carlyle and John Ruskin

Mrs. Eddy's Checkered Career

- “Despite teaching that the material world does not exist, Mrs. Eddy was quite worldly and materialistic. She charged high fees, enjoyed luxury and ran her church like a franchise business.” [Stark]
- Mrs. Eddy wore glasses and was frequently visited by doctors for her complaints in her later life.

Mrs. Eddy's Tall Tales

- Some Oxford students killed a criminal by making him think he was bleeding to death. “Had they changed the felon’s belief that he was bleeding to death, removed the bandage from his eyes, and he had seen that a vein had not been opened, he would have resuscitated.” No documentation provided.
- (*Science and Health*, p. 245): an English woman, “disappointed in love in her early years, she became insane and lost all account of time. Believing that she was still living in the same hour which parted her from her lover, taking no note of years, she stood daily before the window watching for her lover’s coming. In this mental state she remained young. Having no consciousness of time, she literally grew no older. Some American travellers saw her when she was seventy-four, and supposed her to be a young woman. She had no care-lined face, no wrinkles nor gray hair, but youth sat gently on cheek and brow. Asked to guess her age, those unacquainted with her history conjectured that she must be under twenty.” No explicit documentation provided.

Mrs. Eddy's Tall Tales

- (*Science and Health*, pp. 556–557): “It is related that a father plunged his infant babe, only a few hours old, into the water for several minutes, and repeated this operation daily, until the child could remain under water twenty minutes, moving and playing without harm, like a fish.” No documentation provided.

Philosophical Problems with Christian Science

- If “God, divine Mind, governs all, not partially, but supremely”, how is it possible that mortal mind can be so deluded? Why wouldn’t divine Mind take precedence?
- If disease is a consequence of incorrect belief, why do babies get sick?
- Similarly, if disease is a consequence of incorrect belief, why do animals get sick?
 - “You can even educate a healthy horse so far in physiology that he will take cold without his blanket, whereas the wild animal, left to his instincts, sniffs the wind with delight.” (*Science and Health*, p. 179)
- Why do plants get sick?
- Why did dinosaurs get sick?

Philosophical Problems with Christian Science

- Why did Mrs. Eddy's third husband die while under her care?

“My husband's death was caused by malicious mesmerism. Dr. C. J. Eastman, who attended the case after it had taken an alarming turn, declares the symptoms to be the same as those of arsenical poisoning. On the other hand, Dr. Rufus K. Noyes ... affirms that the corpse is free from all material poison... I know it was poison that killed him, not material poison, but mesmeric poison.”

- Why do Christian Scientists die?

Philosophical Problems with Christian Science

- If it is false belief that creates illness, how can people die if they swallow poison by mistake?

“If a dose of poison is swallowed through mistake, and the patient dies even though physician and patient are expecting favorable results, does human belief, you ask, cause this death? Even so, and as directly as if the poison had been intentionally taken.

“In such cases a few persons believe the potion swallowed by the patient to be harmless, but the vast majority of mankind, though they know nothing of this particular case and this special person, believe the arsenic, the strychnine, or whatever the drug used, to be so poisonous, for it is set down as a poison by mortal mind. Consequently, the result is controlled by the majority of opinions, not by the infinitesimal minority of opinions in the sick-chamber.”

— *Science and Health*, pp. 177-178.

- But this “explanation” cannot explain how people die from poisons or diseases only discovered *after the fact*, before anyone knew they were harmful.

Does Christian Science Really Work?

- Mrs. Eddy opposed scientific studies testing the efficacy of Christian Science healing.
- Thousands of “cures” reported in detail, but no controlled studies.
- Cures are reported without medical or other objective documentation.
- Many “cures” involve illness that is self-limiting, such as chapped hands, a burned fingernail, hangnails, and momentary dizziness.
- The Church also forbids counting and disclosure of Church membership.
- Despite this, a Christian Science spokesman once claimed the death rate for Christian Science children was about half of that for children who receive ordinary medical care.

The Wilson Study

- This autopsy surgeon for the coroner of King County, Washington studied death records for that county from 1935 to 1955.
- He concluded that Christian Scientists died at an earlier average age than the state average.
- The death rate for Christian Scientists from cancer was double the national average.
- The death rate for Christian Scientists from coronary attacks was much lower than average.
- At least 6% of Christian Scientists' deaths were medically preventable (e.g., some percentage of deaths from breast cancer, stomach cancer, tuberculosis, diabetes, and pneumonia for which standard medical treatment is effective)

The Simpson Study

- The most devastating study for Christian Science beliefs.
- Simpson compared 5558 Christian Scientists educated at Principia College (a Christian Science school) to a control population of 29858 students who were educated at the University of Kansas
- Graduating classes from 1934 to 1983 were included
- The hypothesis that that Principia College graduates died at an earlier age than graduates of the University of Kansas was confirmed ($P = .042$ for the men, $P = .003$ for the women)
- Conclusion: “It is possible that being a Christian Scientist has a negative effect on longevity, overriding the positive health effects from not smoking or drinking.”

Objections to the Simpson Study

- Incompleteness of the data: there was current data on only 87% of University of Kansas graduates, but 97% of the Principia College graduates.
- Simpson assumed all of the missing Principia College graduates were still alive, while the missing University of Kansas students were alive in the same proportion as for known students.
- However, missing students might be more likely to be dead than known students.
- Response from Simpson: “If death were a common reason that the University of Kansas lost track of students, then the percentage of missing students would be positively related to the percentage of dead students in each cohort. The opposite is true. The percentage of missing students from the University of Kansas in each cohort rises during the period of the study, 1934 through 1983, from 5% to 15% for the men and from 6% to 15% for the women, while the percentage of dead students decreases from 29% to 1% for the men and from 14% to less than 1% for the women.”

Intercessory Prayer Generally Considered

- Francis Galton observed in 1872 that kings and queens are among the most prayed for people, yet do not live longer than the average population.
- Joyce and Welldon (1965) tested the efficacy of intercessory prayer for patients with rheumatic disease
- no statistically significant difference
- Collipp (1969) tested the efficacy of intercessory prayer for children with leukemia
- no statistically significant difference
- Byrd (1988) studied patients with coronary disease
- He found a statistically significant difference, but there are statistical problems with his conclusions, as observed by Witmer and Zimmerman (1991)

Why Christian Science Appears to Work

- The “post hoc, ergo propter hoc” fallacy.
- Lewis Thomas:

The great secret, known to internists and learned early in marriage by internists’ wives, but still hidden from the general public, is that most things get better by themselves. Most things, in fact, are better by morning.

— *The Lives of a Cell*

- In 1954, sociologist R. W. England studied a sample of 500 letters attesting to Christian Science healing. He found

Perhaps most conspicuous was an apparent ignorance of or indifference to the natural healing powers of the human body. Thus, a vast number of minor ailments, ranging from athlete’s foot to the common cold, were treated and cured by the application of Divine Truth... ..Thus, by virtue of the peculiar emphases of their faith and the peculiar functioning of the human body, [Christian] Scientists have a constant and automatic source of evidence confirming their beliefs.

- England points out that the Christian Science practitioner, perhaps inadvertently, plays the role of psychotherapist for emotionally disturbed patients.
- For example, here is an excerpt of a letter quoted by England:

I can never express enough gratitude to the practitioner who helped me from the beginning, because during the first three months that I read Science and Health by Mrs. Eddy, I did not understand it. I would talk with the practitioner several times each day on the telephone, and I have always had a feeling that if it had not been for her untiring, unselfish, and loving encouragement, understanding and help during this most trying time, I should have lost my way entirely.

Examining Christian Science Testimony

- In November 1998, a Toronto Christian Science practitioner named Joni Overton-Jung spoke at the University of Waterloo.
- In the conclusion of her talk, she claimed while a Peace Corps volunteer in Africa, she developed malaria but cured herself with prayer.
- Her claim is typical of unsubstantiated Christian Science claims in many respects:
 - She offered no independent evidence, such as a doctor's examination, in support of the claim that she really had malaria.
 - The symptoms of malaria are easily confused — especially for a layperson with no medical training — with diseases caused by other infectious agents.
 - For example, dengue fever is endemic to many areas where malaria is often present, and the symptoms are similar.
 - Dengue fever is self-limiting, however, and often cures itself, prayer or no prayer.

A Quote From Hume

[N]o testimony is sufficient to establish a miracle, unless the testimony be of such a kind, that its falsehood would be more miraculous, than the fact, which it endeavors to establish...”

— David Hume, *Of Miracles*, Section X of *An Enquiry Concerning Human Understanding*, 1777.

Consequences of Christian Science Belief

- Because Christian Science practice discourages immunization, Christian Scientists “may play important roles in sustaining or initiating transmission of measles” .
- In 1985, measles outbreaks hit several US colleges. “Worst hit of all was Principia College of Elmhurst, Ill., a tiny Christian Science-affiliated school where at least 96 students have been infected and two have died, apparently from complications. (Rubeola, which tends to be more serious in adults than in children, can lead to pneumonia and encephalitis.)”

The Asser and Swan Study

- A 1998 study by Asser and Swan evaluated “deaths of children from families in which faith healing was practiced in lieu of medical care”.
- Of 172 such deaths between 1975 and 1995, they concluded that 140 deaths were from conditions for which standard medical care would have resulted in a survival rate of at least 90%. These included 12 cases of diabetes and 22 cases of pneumonia.
- 18 more were from conditions with typical survival rate at least 50%.
- They concluded “when faith healing is used to the exclusion of medical treatment, the number of preventable child fatalities and the associated suffering are substantial and warrant public concern.”

The Slow Demise of Christian Science

- Christian Science has been gradually losing membership and influence since about 1935.
- Since the Christian Science church refuses to release membership figures, sociologist Rodney Stark used census data.
- He also painstakingly counted the number of Christian Science practitioners as listed in the *Christian Science Journal*.
- He offers as reasons for the demise of Christian Science
 - The dramatic success of modern medical science
 - * sulfa drugs available c. 1936
 - * penicillin available c. 1943
 - * tetanus vaccine c. 1940
 - * immunization of children c. 1935
 - Lower fertility of Christian Scientists

For Further Reading

1. R. W. England, Some aspects of Christian Science as reflected in letters of testimony, *American J. Sociology* **59** (5) (March 1954), 448–453. See also reply by Will B. Davis in **60** (2) (September 1954), 184–185.
2. Martin Gardner, *The Healing Revelations of Mary Baker Eddy*, Prometheus Books, 1993.
3. William Franklin Simpson, Comparative longevity in a college cohort of Christian Scientists, *J. American Medical Association* **262** (12) (September 22/29 1989), 1657–1658. Corrigendum, **262** (21) (December 1 1989), 3000. Criticism and reply, **263** (12) (March 23/30 1990), 1634.
4. Rodney Stark, The rise and fall of Christian Science, *J. Contemporary Religion* **13** (2) (1998), 189–214.
5. Gale E. Wilson, Christian Science and longevity, *J. Forensic Sciences* **1** (4) (October 1956), 43–60.

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