

What the Cold-Water Cure Teaches Us About Darwin

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Abstract

The cause of Darwin's long-term health problems has been the subject of several books and scores of academic publications. Among the many theories include Darwin's acknowledgment that his goal was to "murder God" by developing a creation theory that negated the most common reason given for belief in Him, namely the beauty and complexity of the physical world. This theory Darwin developed to that end was natural selection, although Darwin himself had doubts about the ability of the mechanism he proposed to account for all of creation. As will be reviewed, a good case has been made by several Darwin scholars for the murder hypothesis causing guilt that accounts for many, if not most, of Darwin's psychological problems (which, in turn, had a large influence on causing his many physical maladies). The "cold-water episode" recounted in this paper supports this conclusion.

Introduction

Darwin's serious health problems were well-documented both by himself and others. Columbia University psychiatrist Dr. Ralph Colp, whose career focus was researching Darwin's health, wrote two books and over eight major peer-reviewed articles on the topic. Darwin's health problems included various combinations of severe psychological (or psychologically influenced) issues. These included severe depression, fits of hysterical crying, shaking, severe anxiety, insomnia, fainting spells, muscle

twitches, trembling, nausea, vomiting, depersonalization, visual hallucinations, malaise, vertigo, cramps, bloating, nocturnal flatulence, headaches, nervous exhaustion, dyspnea, tachycardia, tinnitus, and sensations of loss of consciousness and impending death (Bergman, 2015).

That Darwin suffered from several severely disabling maladies is not debated. The only debate is the exact cause (Katz-Sidlow, 1998). Although Darwin consulted over 20 doctors, a definitive diagnosis was never rendered (Colp,

2008). As a youth, he lived an active life involved in hunting and numerous outdoors activities. George Pickering, in an extensive study of Darwin's illness, concluded it was only after around age 30, when he began developing his theory of evolution, that Darwin became an "invalid recluse" (Pickering, 1974, p. 34). Darwin scholar Michael Ruse concluded that Darwin "was an invalid from the age of 30" until he died at the age of 73 (Ruse, 2003, p. 1523).

Why was Darwin plagued by so many major, and at times incapacitating, health problems? The detailed research on Darwin's health by Colp and others has ruled out most of the common theories, including Chagas disease, and peptic ulcers caused by the bacterium *Helicobacter pylori*. What remains is a theory that attempts to explain his

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Figure 1. The man behind the Water Cure, Dr. James Manby Gully, about 1860. From Wiki Commons. In the public domain.

health problems as psychologically caused, including anger turned inward. As Colp explained, Darwin was “unable to openly express his anger” and, as is common, “turned the anger against himself”—a common reason for the depression, anxiety, and other symptoms Darwin faced most of his life (Colp, 2008, p.117). Colp added “he always had difficulty in expressing serious anger” (Colp, 2008, p. 39).

Two of the main reasons for his anger, in this case against God, were the death of his beloved child, Annie, and his war against God and Christianity (Keynes, 2002, p 210). The problem with speculating that Annie’s death was the initiating cause of Darwin’s psychologically-related health issues is that his health problems began more than a decade before Annie died. However, psychologically-related health issues do correspond temporally to when he was

developing his ideas of natural selection as a substitute agent for God.

It’s Like Committing a Murder

As I documented elsewhere, Darwin made it clear that the goal of developing his theory of evolution by natural selection was, in effect, to “murder” God by creating another creator to account for the existence of life, namely natural selection (Bergman, 2020). Darwin knew that the main reason in his day that people believed in God was because of the evidence of creation (Shermer, 2000, p. xiv). If he could come up with another theory that explained the origin of the physical creation, Darwin realized that the main reason people give for believing in God would no longer exist. This would result in many giving up belief in God, which history confirms is exactly what happened (Fuller, 2017). In a letter to Joseph Hooker, dated January 11, 1844, Darwin wrote, in contrast to his original belief, that he now believed “species are not immutable (it’s like confessing a murder).” (Darwin Correspondence, vol. 3, p. 2). Marty, in a detailed discussion titled “Darwin on a Godless Creation: ‘It’s like confessing to a murder’” explained in detail the background of Darwin’s statement about murder:

Before marriage, Charles Darwin had confessed everything to [Emma]. He was in the process of rewriting the history of life. That, according to his convictions, all living things descended from a common ancestor. And that species were not to be attributed to God’s endless creativity, but were the product of a blind, mechanical process that altered them over the course of millions of years (Marty, 2009).

The meaning of Darwin’s statement has been the subject of several detailed studies, most agreeing with the interpretation reviewed here (for a careful review see Colp, 1986; See also Bergman, 2017,

pp. 16, 18, 56, 78, 103, 110, 269). An analysis by Freud’s disciple, Ernst Jones, from a study of Darwin, who compared the reactions of the two men who discovered the relation of Natural Selection to Evolution, which meant displacing God from His position as Creator specially concerned with mankind, and removing Him to an infinitely remote distance.... Darwin, the one who stood in such awe of his own father, said it was ‘like committing murder’—as, indeed, it was unconsciously.... He paid the penalty in a crippling and lifelong neurosis, and in an astonishing display of modesty, hesitancy, and dubiety concerning his work. The other, A. R. Wallace, compensated for the displacement of the supernatural by bringing it back in another sphere, by his quite naïve adherence to spiritistic beliefs (Jones, 1990, pp. 193–194).

Colp summarized Jones’ conclusion that, by murder, Darwin “meant ‘paricide,’ the murder of God the father”



Figure 2. Darwin’s favorite child, Anne, who died at age ten, likely from tuberculosis. From Wiki commons. In the public domain.

(Colp, 1977, p. 30). One of the world's leading Darwin scholars, Michael Ruse, agreed with Jones, writing that

Darwin knew his theory was much better than Chamber's ... but it was evolutionary and materialistic nonetheless.... When telling Hooker of his evolutionism, Darwin confessed that it was like admitting to a murder. It was murder ... of Christianity, and Darwin was not keen to be cast in this role. Hence the *Essay* [which became the *Origin of Species* published in 1959] went unpublished (Ruse, 1979, p. 185).

Colp adds the word *murder* related to the discussion of Darwin's implications, namely to Darwin's

moral feelings about his theory of evolution: evolution operates not by the morally tolerable Lamarckian mechanism of "slow willing," but by the morally intolerable mechanism of "murder," the massive murder of all unfit, aptly describes and characterizes the War of Nature (Colp, 1977, pp. 29–30).

Colp further observed that Darwin realized that "his theory would be viewed with opprobrium equivalent to that attached to murder and that he would receive a punishment equal in severity to that given to a murderer" and for "the murder of God, of Christianity... Darwin must have believed that it was honest, manly, and courageous to confess what he really believed and to face his punishment." (Colp, 1986, p. 15). Indeed, Darwin received as punishment a life of illness.

This goal of "murdering God" also created a nearly lifelong conflict with Darwin's conscience which began when he devised a naturalistic evolution theory. This conclusion is clear when Darwin said he would "give absolutely nothing for the theory of nat[ural] selection if it required miraculous additions at any one stage of descent" [letter to Charles Lyell, dated October 11, 1859; *Darwin Correspondence*, vol. 7, p. 345;

Darwin, Francis (editor). 1888. *The Life and Letters of Charles Darwin*. London, UK: John Murray, p. 210 and John Cobe, 2008, p. 275]. Only a non-theistic explanation would be acceptable—one that had no need for God at any stage of evolution.

The Water Cure

The water cure was then a trendy Victorian spa treatment. Charles Dickens, Alfred Lord Tennyson, Thomas Carlyle, Florence Nightingale, and other well-known British all went there for therapy (Price, 1981). The treatment basically involved use of a lot of very cold water, both drinking and bathing in it; in short, keeping patients as internally hydrated and externally moist as possible for as long as possible (Priessnitz, 1842, pp. 20–30).

The cold-water cure evidently was originated by Vincenz Priessnitz, a poor farmer considered to be the founder of the modern hydrotherapy movement. Priessnitz got the idea from observing an injured deer return several times to a cold spring to bathe his wounds (Kang and Pedersen, 2017, p. 174). When Priessnitz suffered from crushed ribs as a result of an accident, the local doctor wrapped his chest, causing even more pain. Among the cures Priessnitz attempted to employ to relieve the pain was the water cure, which was the only one he felt was successful.

Priessnitz believed that the body naturally healed itself, but at times needed outside help (Kang and Pedersen, 2017). He concluded that rapid changes in temperature that were part of the water-cure treatment allowed skin pores to open, evacuating toxins from the blood. Priessnitz's own experience motivated him to begin treating others. As time went on, he modified his treatment protocol, which did not involve drugs or even herbal medicines. He believed the extreme conditions caused by major water temperature variations disturbed

the body balance of so-called humors which, in turn, facilitated healing.

Priessnitz also required his patients to add strenuous exercise to their daily regimen, and sometimes required his patients to fast. The food served was bland and mostly hard, and large quantities of water, a minimum of twelve glasses and as many as thirty glasses a day, were the only drink allowed. According to Metcalfe, the publicity from several lawsuits against Priessnitz failed to shut down his spa treatment center (Metcalfe, 1898, chapter 2).

Actually, the publicity encouraged others to attempt his treatment and his treatment system made Priessnitz a famous and wealthy man, which helped his protocol to spread to other parts of the world (Kang and Pedersen, 2017, p. 175). Priessnitz personally relied totally on his cold-water cure when he became sick or needed medical attention, and he refused to see a physician for the rest of his life. He died at the young age of 52.

Darwin Attempts the Water Cure

In March of 1849, after every other medical treatment Darwin tried from England's leading physicians failed to cure his nearly lifelong incapacitating health problems, he decided to take a chance on the so-called "Water Cure" (Colp, 1977, p. 39). Darwin took his wife, their six children, a governess, and servants to Malvern in order to experience the cold-water treatment based closely on Priessnitz's program (Colp, 2008, p. 45). Darwin first learned about the treatment from friends, and then read Dr. Gully's best-selling book *The Water Cure* before he went to Malvern.

This "treatment" was administered by a former medical school classmate of his, Dr. James Manby Gully. Gully had not originally planned to practice medicine, but when the family's Jamaica coffee plantation failed because their slaves gained their freedom in 1834,

Gully had no choice but to see patients full-time. In the 1840s, he opened a resort in Malvern, Western England, based closely on the technique developed by Priessnitz (Gully, 1849; Wilson, 1843). The specific treatment used frequent very cold water baths, drinking copious amounts of water, exercise, and a restricted diet; the details varied depending on the patient and Gully's experience with variations of the protocol. The details of the treatment Darwin received rely on Darwin's correspondence and his wife's diaries because, as far as is known, any notes Gully made on the treatment he used on Darwin have not survived (Ullman, 2009).

Dr. Gully diagnosed Darwin as suffering from a form of indigestion called "nervous dyspepsia," a common diagnosis for the many patients Dr. Gully treated. Gully also diagnosed Darwin with "chronic excess and congestion of blood in the nutritive blood vessels ... of the stomach" (Colp, 2008, p. 45). This diagnosis illustrates how much of the practice of medicine at the time was based on suppositions about physiological mechanisms rather than experimentally-derived evidence.

Darwin's treatment in Malvern began as an ordeal for the whole family. After a good night's sleep in a local villa, the Darwin family woke at 5 a.m., the servants wrapped Darwin in wet sheets, and then doused him with buckets of very cold water. This was followed by a long group hike that included plenty of hydration breaks at various wells and mineral springs along the way. Back at their cottages, breakfast consisted of biscuits and more cold drinking water. The rest of the day consisted of Malvern's main activity, namely bathing and drinking water.

Dr. Gully supported a theory that disease is caused by a faulty blood supply to the internal viscera. This condition was treated by hydrotherapy which Gully believed drew blood *away* from the inflamed inner organs and toward the skin,

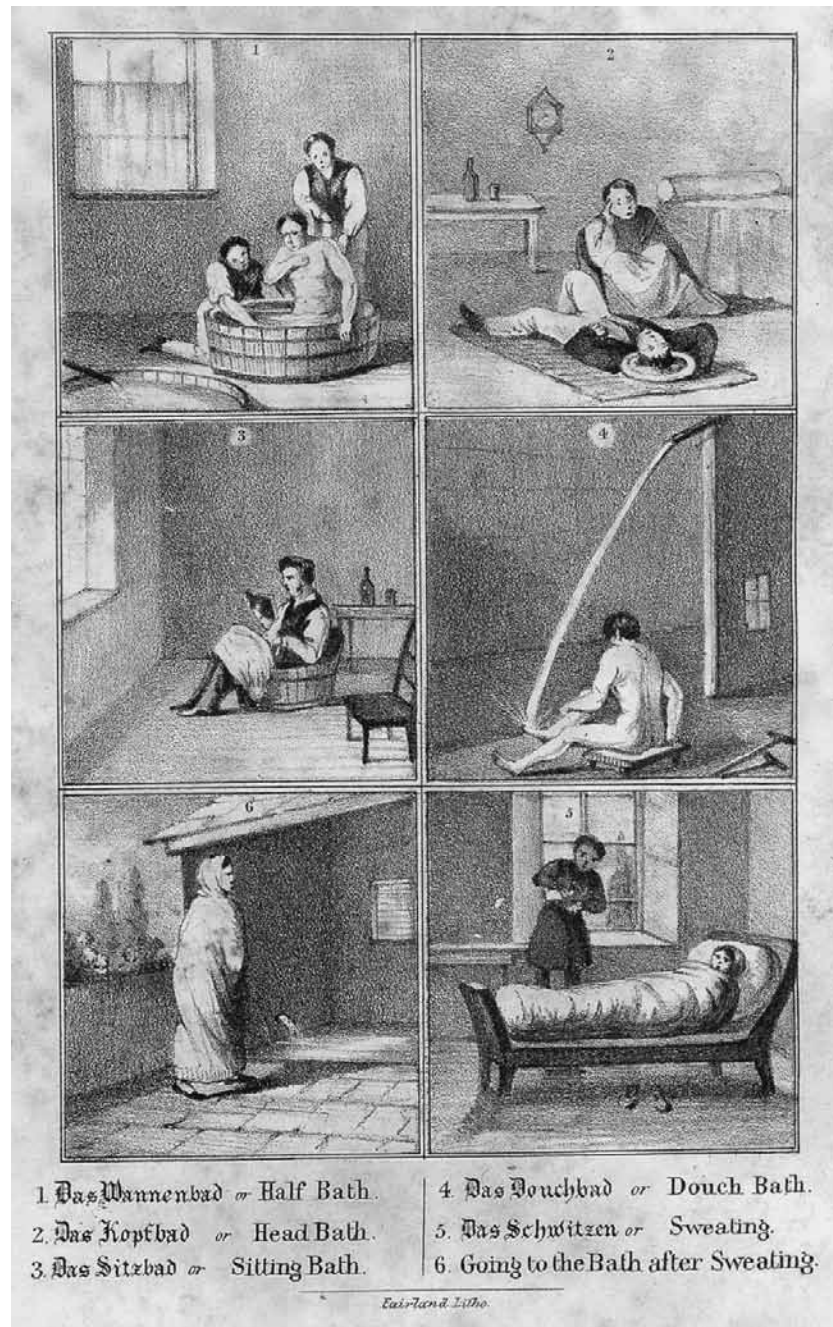


Figure 3. The Water Cure Treatment described in German and English.

providing relief (Gully, 1849). Dr Gully also claimed that he had "successfully treated cases of long-standing dyspepsia with a daily treatment of hydrotherapy ... [and] the hygienic water treatment seldom, if ever, fails to cure it" (Colp, 2008, p. 45). Gully also stressed cleanliness, which was not widely practiced in his

day. Resolution of infection by improved hygiene, not the cold-water therapy, may be a confounding reason why some of his patients got better.

Between cold-water baths, Darwin might have a refreshing cold-water enema or be strapped into a wet abdominal compress called a "Neptune Girdle."

Baths usually lasted until dinner, which often consisted of boiled mutton, fish, and some local mineral water. Foods strictly avoided included sugar, butter, spiced tea, and bacon. The long day ended with a very tired Darwin crashing into his very dry bed (Kean, 2012, p. 289).

After four months of this hydro-sanitarium, Darwin vomited less at first, then remained vomit free for months, concluding, “I feel certain that the Water Cure is no quackery” (Letter to Hooker, dated March 28, 1849, Correspondence, vol. 4, p. 227). He soon felt so good that he was able to hike seven miles a day without problems. He claimed he now felt better than at any time since his *Beagle* trip. Previously, he sometimes had a difficult time walking more than a city block. When Darwin left Malvern, he sent a letter to his cousin. After noting that Dr. Gully “must be making an immense fortune,” Darwin declared his vomiting and other health problems were “absolutely cured” (Letter to William Darwin Fox, dated July 7, 1849, Correspondence, vol. 4, p. 246).

Back at Down House, he continued the Water Cure in a slightly less rigorous form, even constructing a sweat lodge that he used each morning, followed by a polar bear plunge into a 640-gallon cistern he had constructed and filled with very cold (40°F) water (Kean, 2012, p. 289). Darwin faithfully followed this arduous treatment for months. Unfortunately, when Darwin returned to his goal of working on his theory designed to murder God and Christianity, his poor health soon returned, supporting the theory that his goal of murdering God was an important factor in his illness.

It may be that the four-month vacation while living in a very different environment at the spa had a very beneficial effect on Darwin, as vacations often do. Bathing in frigid water and the other aspects of the Water Cure could have diverted his mind from concerns about his evolution theory to the cold he expe-

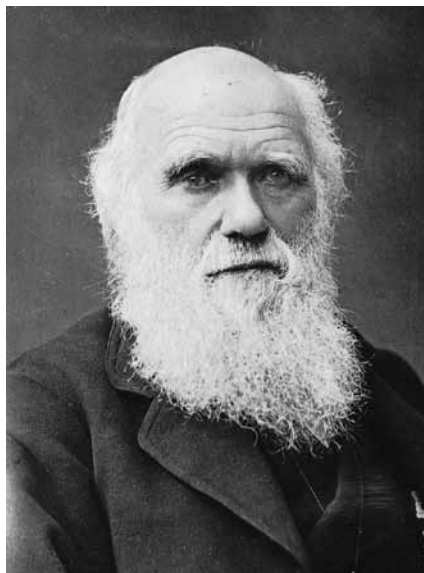


Figure 4. Charles Darwin shortly before he died at the age of 73. The picture was taken in 1881; he died in 1882. He looked much older than 73. From Wiki Commons. Public Domain.

rienced. This is exactly how transcutaneous electrical nerve stimulation (TENS) is theorized to work, namely by diverting one’s mental focus to the sharp pain produced by the machine’s electricity away from the dull pain produced by the back pain (Johnson and Martinson, 2007). The fact that his major health problems plagued him for most of the rest of his life also supports the importance of his work on evolution as a major factor in causing his health problems.

The beneficial results of the treatment without any experimental connection to gastrointestinal physiology indicate that Darwin’s nearly lifelong debilitating health problems were mostly psychological. When his ten-year-old daughter Anne became ill, she was also taken to Malvern for the water treatment. However, this did not cure her malady, ending in her death, most likely from tuberculosis caused by *Mycobacterium tuberculosis* (Colp, 2008, pp. 51–52; Keynes, 2001, 219).

The claim that cold-water therapy could treat injury and illness discouraged many a person from seeking proper medical treatment and to instead rely on the water cure. Drinking plenty of water, especially in hot climates, frequently exercising, and daily bathing, are all well-known practices contributing to better health. Conversely, as a cure-all and to eschew medical treatment as Priessnitz and many of his followers advocated, the practices can be lethal if taken to an extreme (Kang and Pedersen, 2017, p. 183). Darwin also became disillusioned with Dr. Gully’s acceptance of clairvoyance, as well other ideas with which he disagreed. These two events caused Darwin to abandon the Water Cure. He soon developed all of his previous symptoms, including stomach problems, dizziness, vomiting, and fainting.

Darwin later tried electrical shock therapy, various herbs, phrenology, and other treatments, with little improvement. Both Darwin and those who studied his health problems noted that his illness was strongly correlated with certain stressful events in his life which likely only aggravated the major source of his stress—his guilt over murdering God (Barloon and Noyes, 1997, p. 138; Desmond and Moore, 1991, p. 456). We know that many of his stressful events were short-lived, unlike the underlying stress caused by guilt, and if he avoided them, he was able to keep from increasing his stress significantly above his usual level.

This fact leads to the conclusion that his open goal of murdering God was a significant catalyst in his health problems, no doubt due to internal conflicts and guilt. His guilt is illustrated by his mixed feelings towards the Church, exacerbated by the fact that his wife was an active, devout Christian. Darwin was very generous financially with the local church of England that his wife and children attended. Unfortunately, later in life, most or all of his children became atheists or agnostics, and many

were involved in the eugenics movement (Blaney, 2011).

Darwin initially called the Tierra Del Fuego natives he encountered during his five-year voyage on the HMS *Beagle* the lowest human race, actually a link between the apes and man. He added that there was zero possibility that this race of people could be civilized. Darwin later learned that a trusted missionary friend of his, who also was a part of the *Beagle* voyage, had considerable success in converting many of the natives to civilized Christians. This and other experiences influenced him so greatly that, until the end of his life, Darwin regularly supported that specific mission.

Conclusions

I agree with Darwin's wife, Emma, who diagnosed her husband's health problems as "always affected by his mind" (Colp, 2008, p. 51). Professor Hopper opined that Darwin establishing the idea of evolution changed the world by negating the reason that most people believe in God. Destroying the evidence for God as the creator was, in Darwin's words, like confessing a murder, namely the murder of God. This, of course, produced enormous internal conflicts in Darwin's mind that took a major toll on his health. He died of congestive heart failure at age 73, a comparatively young age for a British upper class male (Hopper, 2009, p. 29).

No evidence exists that his heart caused his lifelong stress, but his health problems likely contributed to his heart failure. Lastly, the facts are that Darwin enjoyed very good health until the time he began working on his theory of origins in his 30s, but then was largely an invalid thereafter, except when his mind was diverted while indulging in the cold-water cure.

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