

DISCUSSIONS ON SOUL

I am sure that just about everyone has at one time or another discussed the subject of Soul and the Hereafter. Unfortunately there still is not a definitive nor conclusive answers to those subjects.

If you have a Far East or a Christian belief, one can just rely on the historical understanding and thus ignore any further debate on that subject.

My friend William (Bill) Chernoff has achieved a doctorate in Mathematics and taught at the university level at the University of New Brunswick at Fredericton. We entered this discussion with curiosity and shared our experiences on witnessing the passing of loved ones and written passages on this subject.

Recently, Bill shared this view on the instance of death and the passing of Soul from his perspective as a Mathematician. While lecturing with his classes, he would present this understanding:

“.....Normal observations are three (3) dimensional with width, height and depth representing what we all see. At clinical death, one passes into a fourth (4th) dimension where width, height and depth become perpendicular to each other. Essentially become invisible to the naked eye. This can be classified as a ‘spiri’ or ‘ghost’ for want of a better definition.....”

The Fourth Dimension has been a subject of Mathematicians for many years. I googled the phenomena and was able to get this one description:

“.....**The Fourth Dimension**

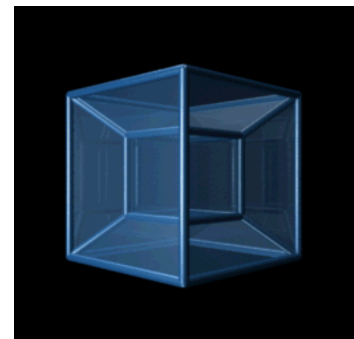
The fourth [dimension](#) refers to the concept of a 4-dimensional space, in which four geometric coordinates are necessary to describe any point. In the fourth dimension, our universe is but an infinitesimal slice of the fourth dimension.

Basic Description

What constitutes a dimension? A dimension has an origin and a set of coordinates which each can independently equal any real number. The nth dimension requires n numbers to specify the position of a point in it, and no point in that dimension cannot be described by some combination of the n coordinates. The origin is where every coordinate (however many there are) is zero. Each coordinate represents a distance from the origin in a certain direction, and each of those directions is perpendicular to the rest. If you're reading this, you know already that the first dimension is a line, the second is a plane, and the third is space. What, then, is the fourth dimension?

Even though imagining what four dimensions actually looks like may be beyond human capability, we know it requires four numbers to describe any possible point in it. The fourth dimension is a hyperspace, since it is of a higher dimension than ordinary space.

This geometric representation was created by Jason Hise and posted on Google.”



I have not discussed this with Dr. Bill Chernoff and at this time, I am posting all this information and suggesting that it is all “under discussion”.

I further searched Google to see if there has been any actual physical explanation of Soul and found this article:

“.....21 grams experiment

From Wikipedia, the free encyclopedia

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The **21 grams experiment** refers to a scientific study published in 1907 by Duncan MacDougall, a physician from [Haverhill, Massachusetts](#). MacDougall hypothesized that [souls](#) have physical weight, and attempted to measure the mass lost by a human when the soul departed the body. MacDougall attempted to measure the mass change of six patients at the moment of death. One of the six subjects lost three-quarters of an ounce (21.3 grams).

MacDougall stated his experiment would have to be repeated many times before any conclusion could be obtained. The experiment is widely regarded as flawed and unscientific due to the small [sample size](#), the methods used, as well as the fact only one of the six subjects met the hypothesis.^[1] The case has been cited as an example of [selective reporting](#). Despite its rejection within the scientific community, MacDougall's experiment popularized the concept that the soul has weight, and specifically that it weighs 21 grams.



Experiment^{[[edit](#)]}



Duncan MacDougall, pictured in 1911

In 1901, Duncan MacDougall, a physician from [Haverhill, Massachusetts](#), who wished to scientifically determine if a [soul](#) had weight, identified six patients in nursing homes whose deaths were imminent. Four were suffering from tuberculosis, one from diabetes, and one from unspecified causes. MacDougall specifically chose people who were suffering from conditions that caused physical exhaustion, as he needed the patients to remain still when they died to measure them accurately. When the patients looked like they were close to death, their entire bed was placed on an industrial sized scale that was sensitive within two tenths of an ounce (5.6 grams).^{[1][2][3]} On the belief that humans have souls and that animals do not, MacDougall later measured the changes in weight from fifteen dogs after death. MacDougall said he wished to use dogs that were sick or dying for his experiment, though was unable to find any. It is therefore presumed he poisoned healthy dogs.^{[3][4][5]}

Results^[edit]

One of the patients lost weight but then put the weight back on, and two of the other patients registered a loss of weight at death but a few minutes later lost even more weight. One of the patients lost "three-fourths of an ounce" (21.3 grams) in weight, coinciding with the time of death. MacDougall disregarded the results of another patient on the grounds the scales were "not finely adjusted", and discounted the results of another as the patient died while the equipment was still being calibrated. MacDougall reported that none of the dogs lost any weight after death.^{[1][4]}

While MacDougall believed that the results from his experiment showed the human soul might have weight, his report, which was not published until 1907, stated the experiment would have to be repeated many times before any conclusion could be obtained.^{[4][5]}

Reaction^[edit]

SOUL HAS WEIGHT, PHYSICIAN THINKS

Dr. Macdougall of Haverhill Tells
of Experiments at
Death.

LOSS TO BODY RECORDED

Scales Showed an Ounce Gone in One
Case, He Says—Four Other
Doctors Present.

Special to The New York Times.

BOSTON, March 10.—That the human soul has a definite weight, which can be determined when it passes from the body, is the belief of Dr. Duncann Macdougall, a reputable physician of Haverhill. He is at the head of a Research Society which for six years has been experimenting in this field. With him, he says, have been associated four other physicians.

The New York Times article from 11 March 1907

Before MacDougall was able to publish the results of his experiments, *The New York Times* broke the story in an article titled "Soul has Weight, Physician Thinks".^[6] MacDougall's results were published in April of the same year in the *Journal of the American Society for Psychical Research*,^[7] and the medical journal *American Medicine*.^[8]

Criticism[[edit](#)]

Following the publication of the experiment in *American Medicine*, physician Augustus P. Clarke criticized the experiment's validity. Clarke noted that at the time of death there is a sudden rise in body temperature as the lungs are no longer cooling blood, causing a subsequent rise in sweating which could easily account for MacDougall's missing 21 grams. Clarke also pointed out that, as dogs do not have sweat glands, they would not lose weight in this manner after death.^{[2][3]} Clarke's criticism was published in the May issue of *American Medicine*. Arguments between MacDougall and Clarke debating the validity of the experiment continued to be published in the journal until at least December that year.^[3]

MacDougall's experiment has been rejected by the scientific community,^{[1][5]} and he has been accused of both flawed methods and outright fraud in obtaining his results.^[9] Noting that only one of the six patients measured supported the hypothesis, [Karl Kruszelnicki](#) has stated the experiment is a case of [selective reporting](#), as MacDougall ignored the majority of the results. Kruszelnicki also criticized the small [sample size](#), and questioned how MacDougall was able to determine the exact moment when a person had died considering the technology available at the

time.^[1] Physicist [Robert L. Park](#) has written that MacDougall's experiments "are not regarded today as having any scientific merit",^[5] and psychologist [Bruce Hood](#) wrote that "because the weight loss was not reliable or replicable, his findings were unscientific".^[9] Professor [Richard Wiseman](#) said that within the scientific community, the experiment is confined to a "large pile of scientific curiosities labelled 'almost certainly not true'".^[2]

An article by [Snopes](#) in 2013 said the experiment was flawed because the methods used were suspect, the sample size was much too small, and the capability to measure weight changes too imprecise, concluding: "credence should not be given to the idea his experiments proved something, let alone that they measured the weight of the soul as 21 grams."^[4] The fact that MacDougall likely poisoned and killed fifteen healthy dogs in an attempt to support his research has also been a source of criticism.^{[3][4]}

Aftermath^[edit]

In 1911, *The New York Times* reported that MacDougall was hoping to run experiments to take photos of souls, but he appears to not have continued any further research into the area and died in 1920.^[4] His experiment has not been repeated.^[5]

Similar experiments^[edit]

In December 2001, [physicist Lewis E. Hollander Jr.](#) published an article in *Journal of Scientific Exploration* where he exhibited the results of a similar experiment. He tested the weight of one [ram](#), seven ewes, three lambs and one [goat](#) at the moment of death, seeking to explore upon MacDougall's purported findings. His experiment showed that seven of the adult sheep varied their weight upon dying, though not losing it, but rather gaining an amount of 18 to 780 grams, which was lost again over time until returning to their initial weight.^[10] In 2009, Hollander Jr.'s experiment was subjected to [critical review](#) by Masayoshi Ishida in the same journal. Ishida found Hollander's statement of a transient gain of weight was "not an appropriate expression of the experimental result", though he admitted "the cause of the force event remains to be explained". He also warned about possible malfunctions of the weighing platform in two of the cases.^[11]

Similarly inspired by MacDougall's research, physician Gerard Nahum proposed in 2005 a follow-up experiment, based on utilizing an array of electromagnetic detectors to try to pick up any type of escaping energy at the moment of death. He offered to sell his idea to engineering, physics, and philosophy departments at [Yale](#), [Stanford](#), and [Duke University](#), as well as the [Catholic Church](#), but he was rejected.^[12]

.....”

So there we are, there is consensus on the attempts to establish evidence of a Soul leaving a deceased body.

This page remains “under construction”.

Posted by Elmer Verigin October 11, 2022