

Unravelling the mystery of Dark Energy

by Elisa Graf

In his essay, *The World as I See It*, visionary physicist Albert Einstein writes, “The most beautiful experience we can have is the mysterious. It is the fundamental emotion that stands at the cradle of true art and true science.” Today, a mystery of unprecedented magnitude is boggling scientists worldwide, as they seek to understand the phenomenon they call dark energy. Writing for *The Guardian*, Stuart Clark explains, “An overwhelming majority of astronomers... believe in the existence of dark energy – and by extension a root and branch re-working of modern physics.” Though, he says, “the question of what this energy actually is remains completely unanswered.”

According to researchers, dark energy and dark matter constitute a whopping 95 per cent of what the Universe is made of. Dark energy is *dark*, meaning it does not make up the visible stars and planets. It’s also too weak to be measured, but its accumulation over billions of light years renders its effects visible. While it had been known since the 1920s that the universe is continuously expanding, Clark explains that the effects of dark energy first came to light in 1998, when two independent studies showed that the expansion of the universe was accelerating, indicating the presence of an undefined force pushing galaxies apart. Scientists had expected to observe expansion from the enormous energy created by the original Big Bang, but they had theorized that the braking effects of gravity would

From the Esoteric Teachings

“The underlying purpose of all life is the creation of unity, thus expressing the interconnectedness of all atoms. For most men, cosmos is a collection of separate material bodies, infinitely large and distant, inertly obeying mechanical laws of matter. In reality, cosmos, Space Itself, is a living entity, the Source of our Being, our Mother and Father.” (Benjamin Creme’s Master, from ‘Unity’, *Share International*, July 2001)

“The old, mechanistic views of nature and of the forces at work within her are fast disappearing and a new awareness is dawning of the unity underlying all manifestation. More and more, the concept that all is energy, that energy and matter are different states of one reality and can be affected by thought, is being accepted on a wide scale and is changing men’s view of life.” (Benjamin Creme’s Master, from ‘Growth of Consciousness’, *Share International*, September 1992)

“Spirit is matter on the seventh plane; matter is spirit – on the lowest point of its cyclic activity; and both – are MAYA.” (H.B. Blavatsky, *The Secret Doctrine*, 1:633)

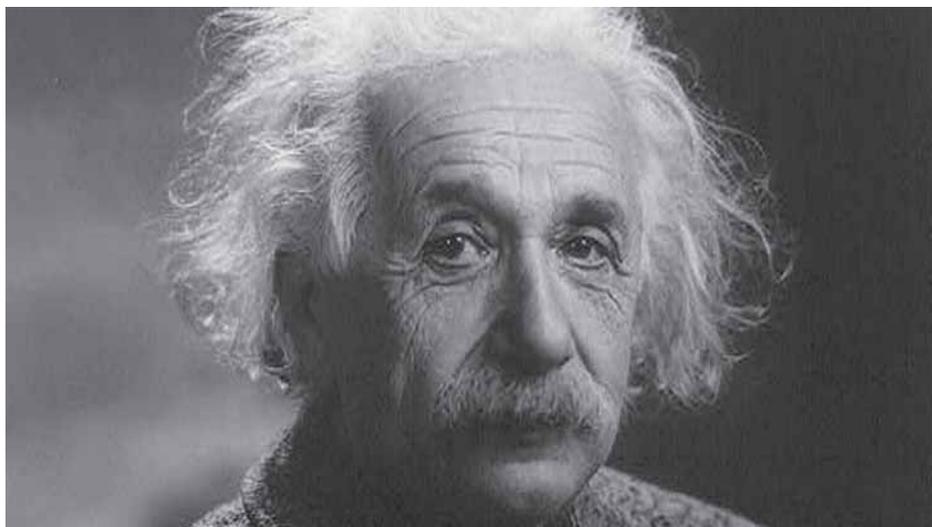
“When the Biblical words are used: ‘In Him we live and move and have our being,’ we have the statement of a fundamental law in nature and the enunciated basis of the fact which we cover by the rather meaningless word: *Omnipresence*. Omnipresence has its basis in the substance of the universe, and in what the scientists call the ether; this word ‘ether’ is a generic term covering the ocean of energies which are all interrelated and which constitute that one synthetic energy body of our planet.” (Alice A. Bailey, *Telepathy and the Etheric Vehicle: Teaching on Telepathy, Part 1.*)

be slowing it down. Their observations that the expansion of the Universe was accelerating came as a shock.

So what is actually known about this mysterious force? *Irish Times* blogger, Professor William Reville explains, “The leading hypothesis is that dark energy is a property of empty space itself and this hypo-

thesis fits the astrophysical evidence better than the other two.” It was Albert Einstein who first posited that empty space – the space between stars and galaxies – is not actually *empty*, explains NASA’s Science website, noting that “Space has amazing properties, many of which are just beginning to be understood. The first property that Einstein discovered is that it is possible for more space to come into existence.” As Reville puts it, “The vacuum is actually a seething sea of virtual particle-antiparticle pairs that suddenly pop into existence and instantly disappear again by annihilating each other.” Referring to Einstein’s theory of gravity, specifically the version that contains a cosmological constant, NASA says, “‘empty space’ can possess its own energy. Because this energy is a property of space itself, it would not be diluted as space expands. As more space comes into existence, more of this energy-of-space would appear. This would cause the Universe to expand faster and faster.”

A second hypothesis is that dark energy represents a dynamic energy fluid or field that permeates all of space but coun-



Albert Einstein



Wilhelm
Reich

teracts the attractive pull of gravity. Some theorists have dubbed this energy field “quintessence”, after the fifth element of the Greek philosophers. The last hypothesis, Reville says “is that there is no such thing as dark energy and that the accelerating expansion of the universe is caused by currently unknown properties of gravity that only manifest themselves over vast scales such as over the entire observable universe.”

Those familiar with the Ageless Wisdom Teaching might suggest that science appears to be nearing a long-awaited revelation – one that recognizes that dark energy is really, in fact, what occultists call the etheric planes of matter. In his book, *The Reappearance of the Christ and the Masters of Wisdom*, Benjamin Creme refers to the etheric planes as an “ocean of energy”, describing them as four planes of still finer matter, “above the dense physical-solid, liquid, and gaseous which constitute the etheric envelope of this planet, and of which the dense physical planes are a precipitation”. He further comments in *Share International* magazine that, “All matter is a precipitation of light and so the field of matter is light precipitated into seven more or less material planes.” Alice A. Bailey’s *A Treatise on Cosmic Fire* confirms that while the etheric planes are “gradations of physical plane matter of a rarer and more refined kind, [they] are physical nevertheless”.

Wilhelm Reich (1897-1957), the well-known psychoanalyst and scientist, also discovered this primordial energy – which he called ‘orgone’ – and considered it to be an energy interpenetrating all forms of matter. Reich experimented with orgone in many ways, developing simple technologies and tools for healing and even cloud-busting and rain-making. So revolutionary were his studies that the US Food and Drug Administration (USFDA) had him arrested on charges of fraud and sent to prison where,

sadly, he died. It was also ordered that his books be burned.

Scientific discovery of the etheric planes clearly has enormous implications for humanity, potentially revolutionizing all aspects of life on our planet. Scientific investigations of these subtle levels of matter would explain how homeopathy and other alternative healing methods such as acupuncture actually work, and what happens to human beings after the death of the physical body. Perhaps, most importantly, it would open the door to public recognition of the value of meditation, the multi-dimensional constitution of man, and the ancient truth of the evolutionary journey of consciousness.

Until then, scientists continue their attempts to decode the elusive nature of dark energy, noting that better data, and more of it, is needed. The most recent efforts have culminated in the largest map of the universe to date, taken using a 2.5metre-diameter telescope at Apache Point Observatory, New Mexico, and released in July 2016 by the Sloan Digital Sky Survey. This remarkable photograph took five years to produce and reveals dark energy’s effects, as its interplay with gravity results in the distribution of galaxies across the Universe. The map charts the positions and distances of 1.2 million galaxies across a volume of nearly 650 billion cubic light years. A single dot represents a galaxy – home to a few hun-

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dred billion stars. Researchers are using the map to search for spherical ripples or baryon acoustic oscillations (BAO) created by sound waves in the early Universe, which expand through the interplay of gravity and dark energy. The combined work of hundreds of astronomers working independently around the world has shown that dark energy appears to be a “cosmological constant,” which Clarks says, “suggests it is a constant energy field stretching throughout space”.

At the same time, scientists in Hungary recently reported that research using a particle accelerator has yielded the possible discovery of a new type of subatomic particle, 30 times heavier than an electron. Though it’s not clear whether this particle was a matter particle or a force-carrying particle, the researchers think it may suggest the existence of a fifth force of nature. Jonathan Feng, a professor of physics and astronomy at the University of California, Irvine, said in a press release that, “If it’s true, it’s revolutionary. For decades we’ve known of four fundamental forces: gravitation, electromagnetism, and the strong and weak nuclear forces. If confirmed by further experiments, this discovery of a possible fifth force would completely change our understanding of the Universe, with consequences for the unification of forces and dark matter.”

The next attempt to study dark energy launches in 2020, as the European Space Agency inaugurates its six-year-long Euclid mission, with more than 1000 scientists representing 14 European countries participating. Euclid will attempt to map the shapes, positions and movements of two billion galaxies across more than a third of the sky. As the website for Hetdex, the Hobby-Eberly Telescope Dark Energy Experiment, eloquently expresses, such ongoing efforts will, “help us understand the vast cosmic ‘ocean’ of dark energy – an ocean that we are just beginning to explore”.