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# The Physics of Near-Death Experiences: A Five-Phase Theory©

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**E**d. Note: The phenomenon of near-death experience continues to attract the interest of a wide range of scientists, among them Dutch researcher Maureen Venselaar. In this article, she proposes a significantly updated theory on what happens during such events, rooted in the dynamics of both physics and astrophysics. This topic has been a longtime focus of study for IONS and its network of colleagues. Most recently, we reported on the “[Final Passages](#)” forum hosted by the Promega Corporation and the BTC Institute, and we are collaborating with Deepak Chopra on a feature film titled [Death Makes Life Possible](#).

The near-death experience (NDE) is an impressive, extraordinary, and life-changing event that usually happens during unconsciousness. Well-known features of the NDE are the out-of-body experience, traveling through a tunnel, and seeing a light. In their quest to find answers about the cause of the NDE, the mainstream scientific community has so far come up with two explanations.

The first one considers the NDE a neurological phenomenon. From this perspective, features such as the life review, the sense of being out of the body, seeing a tunnel or light, and other “strange” things represent some kind of hallucination caused by electric stimuli, stress, medication, or a lack of oxygen. The neurological explanation identifies the brain as *producing* the features of not only the NDE but also consciousness.

The second explanation considers the NDE a supernatural phenomenon, defined as an unknown world or reality outside of our known reality. In this theory, the brain is thought to be *receiving* from a presumably vast and endless cosmic consciousness.

When people experience an NDE, they are therefore connected with cosmic consciousness. This supernatural theory also explains such features as the life review, the out-of-body experience, and traveling at great speeds.

However, both theories fail to consider a link between the severity of the trauma or the sickness that leads to an NDE. Also, neither theory addresses the idea that an NDE becomes more profound and more complete as a trauma or a sickness grows more life threatening. These statements do not conform to the opinions of NDE-experts.<sup>1</sup> Furthermore, neither theory takes into consideration that the NDE has successive phases. This idea also does not conform to the opinions held by NDE experts such as David Fontana, Janice Miner Holden, and Kenneth Ring.<sup>2</sup> Above all, neither the neurological nor the supernatural theory explains all features of the NDE as we know it.

For these reasons, I felt challenged to discover and to develop a new coherent and all-inclusive theory. I analyzed hundreds of NDEs, and after more than ten years of study, I am convinced of a third possible explanation, which connects severe trauma or sickness to the appearance of an NDE. It also adds another ten features to the list of NDE characteristics (all of which are under copyright):

- vibrations and small explosions occurring deep in the physical body before the out-of-body-experience starts
- the experience of a ghostly body of energy (light) that seems to be a copy of the physical body but with no change in personality
- seeing the moon, the stars, the Milky Way, and other heavenly bodies during distant

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- out-of-body travels
- a sensation of becoming as small as a grain of sand or vice versa, a feeling of expansion, when reentering the physical body
- indications of traveling faster than the speed of light
- feeling the strong attraction of a huge “magnet-like” force
- seeing two tornado-shapes of energy appearing as an immense “hourglass”
- seeing a blue/green beam of light, or a red/pink beam of light, or both, each representing an outcome the person can sometimes choose between
- the crucial role of the NDE-person’s thoughts
- the likelihood of forgetting whatever (higher) wisdom might have been experienced

### The Five-Phase Theory©

As we approach the end of life, our sensorial observation decreases, our normal consciousness fades, and deep down in our physical body, at the atomic and subatomic level, a fundamental process starts that releases an “exotic energy” (that is, light-energy, or photons). I believe this exotic energy is the foundation of another, new, pure, and perfect body, as well as another kind of consciousness or awareness. With this new body (of exotic photons), we can travel through the barrier of space and time, as those who experience an NDE often report.

These are the successive phases of a complete NDE:

- separation from the physical body
- a journey through a tunnel to a heavenly light
- being in the presence of the light, near a border
- the return through a tunnel to the physical body

- unification with the physical body

### Phase 1, The Separation

**The Experience:** When people are severely traumatized (for example, due to an accident or a sickness), they lose their normal consciousness. They also hear strange noises and feel vibrations and small explosions deep in their physical bodies.<sup>3</sup> Almost instantly, NDE-people experience another kind of consciousness and a different body, often seeing their own physical bodies while, for example, standing next to it (autoscopy). This is the out-of-body experience. NDE-people realize that they have a “ghostly” body of energy (light), which seems to be a copy of their physical body, but they don’t notice any change in their personality.<sup>4</sup> Sometimes they see other beings of light, their guides to “heaven.” They don’t feel the pain of their physical body anymore but feel happy and peaceful. They can hear and see in a different way, but they cannot communicate with nearby family or friends or the doctors and nurses giving medical care. Sometimes NDE-people hear doctors pronounce a declaration of death.

**Scientific and Theoretical Ground:** To explain these first experiences, I refer to the scientific research of biologist and medical scientist Alexander Gurwitsch and Nobel Prize-winner and biophysicist Fritz Albert Popp. They determined that unstable atoms in our physical body release exotic light-energy in the form of photons. Mathematician Jan Willem Nienhuys, among others, confirmed this and also ascertained that dying cells release countless photons. Photons as *lightkwanta* (independent localized units of energy) are related to consciousness, according to Popp, and to information, according to philosopher of science Ervin Laszlo.

The release of light-energy from a traumatized body can also be indirectly affirmed by the scientific research of, among others, intensive care doctor L. S. Chawla and longtime near-death researcher P.

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M. H. Atwater. These researchers have established that in or near the physical body of traumatized or dying people, the electromagnetic values (those related to light) change.

The body of research noted above, from Gurwitsch through Atwater, helps to explain why NDE-people feel vibrations—waves of energy going through the physical body, a sense of leaving the physical body, and the experience of another kind of body and consciousness.

In this context, family members and friends occasionally report seeing a mist, a fog, or a light leaving the body of a dying loved one—which forms another new body.<sup>5</sup> This new body is, more or less, a copy of the physical body (perhaps this occurs because photons are related to the transfer of information—in this case, about the shape of the physical body from which they came). In 1967, Robert Croockall, a geologist and well-respected investigator of out-of-body experiences, reported observations of mist.<sup>6</sup> I confirmed this phenomenon in 2011 by interviewing family members of those who had passed.

Perhaps life after life is just another representation of light-energy. Quantum physicist David Bohm was convinced that all matter in this universe (which, of course, includes our physical body) is light, but in a condensed frozen state.

**A Cautious Conclusion:** If one's body is severely traumatized, an out-of-body experience will occur, where that body is formed by exotic photons, producing an autoscapy. This is the beginning of life after life as beings of exotic light-energy formed by exotic photons. At such transitional moments, our daily consciousness, connected to the brain under normal circumstances, transforms into a broader, transcendent consciousness. Because the photons that form our new body can travel in space-time, the next life can presumably be "eternal." And because these photons are capable of carrying information

about who we were before the trauma, our new exotic photon body can be roughly the same as our physical body.



Source: M. Venselaar ©

### Phase 2, The Journey through a Tunnel

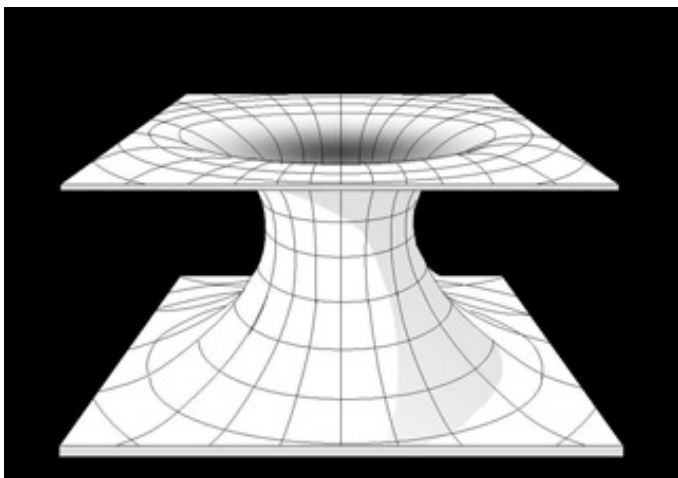
**The Experience:** As a trauma grows more severe, NDE-people (as beings of pure exotic light) travel farther from their physical bodies. They see, for example, the roof of the hospital from above. Soon they are surrounded by a dark space, and they sometimes see grey or dark beings. Almost concurrently, they see the earth, moon, stars, and the Milky Way, as astronauts do (i.e., the relativity of space).<sup>7</sup> They also realize that as bodies of light, they are becoming as small as grains of sand.<sup>8</sup> A tunnel opens, and they travel through this tunnel at or faster than the speed of light due to the attraction of a powerful "magnet," a beautiful heavenly light, which grows larger and larger. All the while, they experience sounds and colors. Again, these descriptions are drawn from the research.<sup>9</sup>

**Scientific and Theoretical Ground:** The first scientific statement that might explain these events is that magnetism and light are two aspects of the same substance.<sup>10</sup> Another fact is that light can be

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influenced by attraction and gravity, whereby the effect of a gravitational collapse is to contract a substance.<sup>11</sup> The assumption is that these phenomena exist on a physical and an astrophysical scale.

On the astrophysical scale, stars explode at the end of their lives and release a certain quantity of stardust, or energy and matter. After that, roughly three things can happen: (1) if a star has little mass, the dust and energy form a nebula; (2) if a star has more mass, the dust and energy form a compact or round nebula; (3) if a star has a very great mass, the dust and energy ultimately collapse and form a black hole. In other words, the strong contraction of a substance can lead to a black hole—a real hole in the fabric of space, which can also be part of a wormhole.



Source: M. Venselaar ©

A wormhole is a tunnel through space in which time can become relative.<sup>12</sup> Photons can travel through black holes without being destroyed and probably through wormholes as well. Scientists at CERN, the European Organization for Nuclear Research, acknowledge the possibility that tiny black holes and tiny wormholes exist.<sup>13</sup> It has also been shown that photons can travel faster than the speed of light (by physicists Günter Nimtz and Alfons Stahlhofen), so kwanta-like photons can probably travel through space-time.

**A Cautious Conclusion:** When someone gets closer to the end of life because of a trauma or a sickness, the unstable atoms of the declining physical body release an increasing number of photons. The more photons that are released, the more compact the new body becomes because of magnetism and gravity collapse. The more compact the new body becomes, the more complete and profound the NDE.

I suggest that three things can gradually happen after the release of different amounts of exotic photons, depending on the progress and severity of the trauma: (1) when a small amount of photons are released, then there is the creation of a ghostly body (a nebula); (2) if the release of photons increases because of a more severe trauma and more unstable atoms, then there is the creation of a “body” in the form of a ball, a dot, or a grain of sand (a compact nebula); (3) when a great mass of photons is released due to both an accelerated pace of unstable or dying atoms and the approach of the end of the physical life, then there is the creation and opening of a blackhole (the opening of a tunnel, spinning into it, and traveling through it).

A small blackhole opens, and a tiny wormhole comes into existence. NDE-people speak about “tunnels” and “endless strings of very elastic energy.” Such strings or tunnels form a connection between the dying physical body and the new body of exotic light. As a trauma becomes more life threatening, more distance is gained from the physical body and our blue planet, and the moon and stars come into view as they do for astronauts. NDE-people at this phase travel as dots of lights, farther and farther, faster and faster, through this unique tunnel (a tiny intrauniverse wormhole) and, in the end, faster than the speed of light (i.e., relativity of time). After a while and somewhere near the edge of our universe, they reach that most beautiful light—the magnet.

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### Phase 3, Final Destination (For Now)—The Light

**The Experience:** NDE-people report slowing down as they reach the beautiful light at the edge of that “heavenly world.” They also experience a border that they realize cannot be crossed. Only the truly dead cross that border and enter the eternal world of light.



Source: NASA/ESA/CXC/JPL/STScI/AURA/CHANDRA.HARVARD ©

Near the light, NDE-people report having a life review and sometimes a life prospect (how their future might unfold). They meet other beings of light (in most cases their “deceased” family members) and a higher, spiritual being of light. Communication is instant. There is also a moment of judgment, but that moment is full of grace and love. According to NDE-people, they find that light equals love equals knowledge and information. In addition, NDE-people report an experience of receiving answers to all of humankind’s questions.

Moreover, NDE-people see two huge tornadoes appear in the form of an immense “hourglass.”<sup>14</sup> The upper tornado spins clockwise and outward, while the lower tornado spins counter-clockwise and inward.

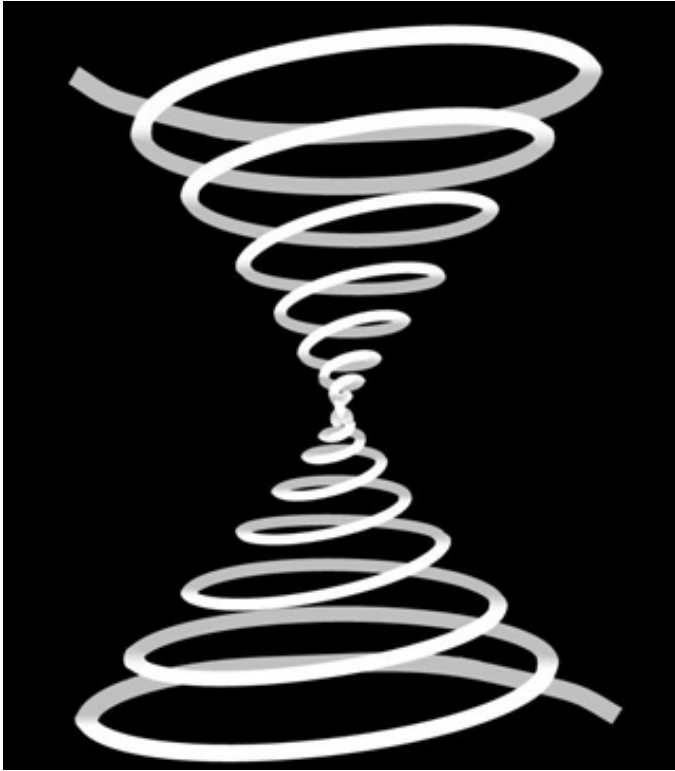
**Scientific and Theoretical Ground:** The astrophysical aspect of my NDE-theory requires a phenomenon in the universe where photons can stay for a while. As described by science writer Kitty Ferguson, this is possible near an event-horizon, which is the beginning or the border of a black hole.<sup>15</sup> A black hole is far from black, however; it is surrounded by light—much light (see the work of astrophysical and planetary scientist Andrew Hamilton<sup>16</sup>). It is probably a black hole that forms the beginning of an “interuniverse wormhole”—a wormhole between universes.

This might relate to the theory that there is more than one universe (as held by cosmologist and theoretical physicist Alan Guth, cosmologist Max Tegmark, theoretical physicists Neil Turok and Paul Steinhardt, among others). Remarkably, according to Stephen Hawking, one theoretical astrophysical model of two adjacent universes is an hourglass. Such an “hourglass-model” has an upper tornado and a lower tornado: the upper tornado spins clockwise and outward, and the lower tornado spins in the opposite direction.<sup>17</sup>

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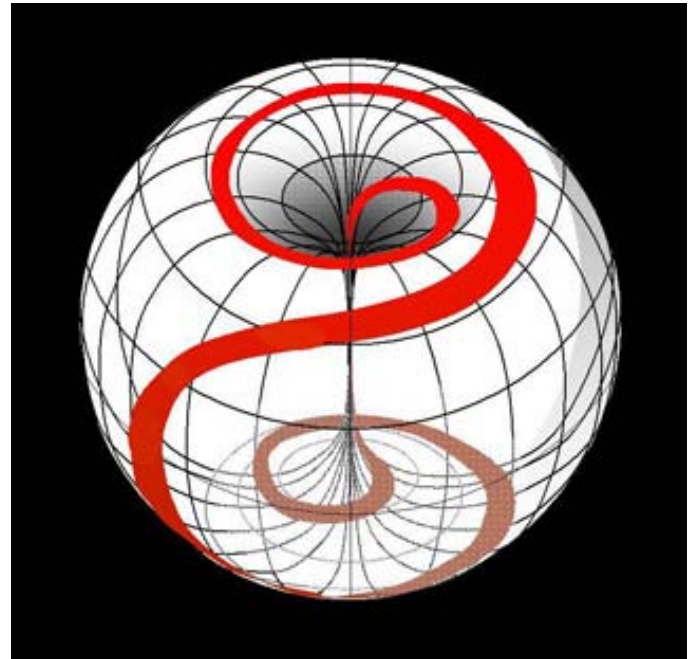
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Source: M. Venselaar ©

The universes can be part of a continuum.



Source: M. Venselaar ©

**A Cautious Conclusion:** During an NDE, a person travels in space-time through a small private tunnel (intrauniverse wormhole) to the edge of our universe. This tiny tunnel is connected to the traumatized or dying physical body and is held open in part by the person's own energy. Perhaps this is why people are no longer dots of energy but become again like ghostly copies of their physical body near the event horizon and the wormhole to another universe.

The image NDE-people see of an hourglass is formed by two tornadoes, which spin in opposite directions. These are two different universes: one of them is our own, and the other is an astral universe, whose essence is a variety of subtle vibrations of light. Our universe is heavy, cold, and small; the other universe is lightweight, warm, and huge. Superstring theory allows for two (or more) universes of differing sizes.

In the center, at the edges where both universes meet, there is another wormhole (formed by a black hole and white hole) that is different from our private black hole and tunnel through space-time; it

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is the beginning of an interuniverse wormhole, or “door” to another astral universe (an entrance very likely not private but common).

On the event-horizon at the border of the interuniverse wormhole, NDE-people are stopped. They don't cross the border and enter the (common) interuniverse wormhole to “heaven.” As NDE-people report, they are still stuck to their physical body by an endless string of very elastic energy. As I speculated earlier, this is probably a tiny intrauniverse wormhole through space-time. The event-horizon is surrounded by light, a genuine, concrete magnetic force. This is where NDE-people meet deceased loved ones, likely composed of indestructible photon bodies. The communication is almost immediate and seems to be telepathic as informed (nonlocal?) photons are exchanged. The life review (or life prospect) is made possible by the relationship between photons, the information they carry, and holographic phenomena. And the fact that light equals information may explain why NDE-people become aware of the answers to humankind's questions. All information is available here before it disappears behind a mist, a fog, stardust, or light near the black hole and wormhole to this other heavenly universe.

### Phase 4, The Return

**The Experience:** NDE-people report seeing a blue/green or red/pink beam of light that sometimes they can choose between.<sup>18</sup> They know that the blue/green beam means continuing their life on earth and the red/pink beam means the end of their life on earth (but the beginning of eternal life behind “the door to heaven”). Their thoughts seem to be crucial to this choosing process. NDE-people return, of course, sometimes against their will, through a still-open private tunnel back into their physical bodies.<sup>19</sup> And for the second time, they see stars and planets on the way back.

**Scientific and Theoretical Ground:** The beams of light are probably due to the Doppler-effect (named after mathematician and physicist Christian Dop-

pler). During such a phenomenon, blue/green light is created when stars, matter, or stardust approach us, and red/pink light is created when stars, matter, or stardust recede from us.



Source Blue veil: ESA © Red veil: ESA/STsci/AURA/John Hopkins University ©

**Cautious Conclusion:** The red/pink and blue/green colors are most likely explained by the Doppler-effect. When NDE-people approach that beautiful, lovely light, that whirlpool of energy and matter, the everlasting “big bang” where two universes meet, they see that matter is coming toward them out of the causal source that creates everything we know in this universe. Because this energy and matter is approaching, it looks blue/green. NDE-people also see the color red/pink created by matter (and so on) moving away from them and toward the black hole “door” to that other universe, traveling farther and farther away from the galaxy/earth and the physical body.

These beams of light, in combination with our thoughts (or the thoughts of a higher spiritual

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being of light or both) seem to determine our destiny. Thoughts are crucial not only during the life review but also in (re)setting an NDE-person's goal, destiny, or life prospect.

Finally, NDE-people travel back as a "dot" (due to both gravity as well as—in theory—the coming together of the energy of the exotic body with the energy that has held the private tunnel open) through the intrauniverse wormhole, the tunnel, through space-time.

### Phase 5, Unification

**The Experience:** NDE-people approach or reenter the physical body as a ball or dot and then experience a sensation of expansion while regaining full connection.<sup>20</sup> They again feel a kind of vibration during the process of reconnection, as well as the pain of the physical body. They have usually forgotten the wisdom they received when they were near the heavenly light. Some NDE-people wish to return to the heavenly light.

**Scientific and Theoretical Ground:** Nowhere is gravity exactly the same—neither on the earth nor throughout the universe. Therefore, the attraction between objects, stars, stardust, and so on is not always the same. Because of gravity or its absence, objects, stars, and stardust can either cluster or not. Gravity exists on an astrophysical scale (concerning the universe) and on a physical scale (concerning particles/kwanta).<sup>21</sup>

**Cautious Conclusion:** When NDE-people return to earth, they do so with a very compact "body." This is maintained during their journey through the tunnel, or wormhole, from the extreme forces of gravity that exist there. They then "unfold" into their physical body due to the reduction of the force of gravity. All the light-energy flows back into the atoms of the physical body and connects with it. Electromagnetic values probably change again. As the trauma stabilizes or decreases, daily consciousness is regained.

### An Astro-physical Phenomenon

All known features of the near-death experience may be explained by a coherent, consistent astrophysical theory (incorporating both physics and astrophysics). In this perspective, the NDE is a five-phase journey through the barrier of space and time. It is triggered by severe trauma or sickness whereby deep in the physical body, at the atomic and subatomic level, a fundamental process begins that releases exotic light-energy, which forms the new, afterlife body and the new, broader consciousness. The NDE becomes more profound and complete (with all features) as the trauma or sickness grows more life threatening. In general, based on the research, this process appears the same for everyone, regardless of culture, race, sex, social class, or worldview.

### Notes

\* Some of the following citations are in Dutch. Neither Maureen Venselaar, the article's author, nor the editors were able to translate all these notes in time for the article's publication, though every effort was made to include all publishing information in Dutch.

1. M. Morse in *De tunnel en het licht* by R. A. Moody (Bruna: Utrecht, 2002); also see P. M. H. Atwater, *Naar het licht* (Strengholt: Naarden, 1995).

2. David Fontana, *Na de dood* (Ankh-Hermes: Deventer, 2010); also see Janice Miner Holden, Bruce Greyson, and Debbie James, eds., *The Handbook of Near-Death Experiences* (Praeger Publishers, 2009); and finally see Kenneth Ring, *Life at Death* (New York: William Morrow and Co., 1982).

3. For example, a woman in *Gedachten over leven na dit leven* by R. A. Moody (Strengholt: Naarden, 1996).

4. For example, Fenimore in *De duisternis voorbij* by A. Fenimore (Bruna: Utrecht, 1995).

5. For example, Dr. Hout in *Na de dood* by David Fontana (Ankh-Hermes: Deventer, 2010).



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6. Robert Crookall in *The Handbook of Near-Death Experiences* by Janice Miner Holden, et al.
7. For example, Nancy Evens Bush in *Naar het licht* by P. M. H. Atwater.
8. For example, Michel in the KRO TV documentary *Een tweede leven (A Second Life)*, aired August 2010.
9. For example, Martel in *The Funny Side of Death*, a National Geographic Channel documentary (Duncun Productions: Vancouver, Canada, 1994); also see Betty in *Geleid door het licht* by B. J. Eadie (Bruna: Utrecht).
10. [http://en.wikipedia.org/wiki/James\\_Clerk\\_Maxwell](http://en.wikipedia.org/wiki/James_Clerk_Maxwell).
11. B. Cox, physicist, professor at the University of Manchester, and a scientist at CERN, Switzerland.
12. P. Davies and R. Mallett, "Time Machine," an episode in National Geographic Channel's documentary series *Naked Science*; February 2009 (Mallett thinks it is possible in combination with spinning blackholes and cosmic strings).
13. For example, A. De Rújula in "Time Machine," an episode in National Geographic Channel's documentary-series *Naked Science*.
14. For example, Atwater in *Naar het licht* by P. M. H. Atwater.
15. Kitty Ferguson, *Een reis naar de grenzen van het universum* (Bzztôh: Den Haag, 1993).
16. "Cosmic Monsters," National Geographic Channel, aired in January 2009; also "Journey to the Edge of the Universe," National Geographic Channel, aired in July 2009.
17. Website of J. Wicherink: [www.soulsofdistortion.nl/dutch/SODA\\_toc.html](http://www.soulsofdistortion.nl/dutch/SODA_toc.html).
18. For example Michelle in *Nader tot het licht* by M. Morse (Elmar: Rijswijk, 1991).
19. For example, Kurt and June in *Nader tot het licht* by M. Morse.
20. For example, a ten year old in *Nader tot het licht* by M. Morse.
21. For example, an unnamed person in *Eindeeloos bewustzijn* by P. van Lommel (Ten Have: Kampen, 2007).
22. B. Cox, physicist, professor at the University of Manchester, and a scientist at CERN, Switzerland.