

# John C. Lilly

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(Redirected from John C Lilly)

**John Cunningham Lilly** (January 6, 1915 – September 30, 2001) was an American physician, neuroscientist, psychoanalyst, psychonaut, philosopher and writer.

He was a researcher of the nature of consciousness using mainly isolation tanks,<sup>[1]</sup> dolphin communication, and psychedelic drugs, sometimes in combination.

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**John Lilly**



**Born** January 6, 1915  
St. Paul, Minnesota, USA

**Died** September 30, 2001 (aged 86)  
Los Angeles, California, USA

## Career summary

Lilly was a physician and psychoanalyst. He made contributions in the topics of biophysics, neurophysiology, electronics, computer science, and neuroanatomy. He invented and promoted the use of an isolation tank as a means of sensory deprivation.<sup>[2]</sup> He also attempted interspecies communication between humans and dolphins. His work helped the creation of the United States Marine Mammal Protection Act.

His eclectic career began as a conventional scientist doing research for universities and government. However, he gradually began researching unconventional topics. He published several books and had two Hollywood movies based partly on his work.

## Career history

John Lilly was born on January 6, 1915, in Saint Paul, Minnesota and showed an early interest in scientific experimentation.

He studied physics and biology at the California Institute of Technology, graduating in 1938. He studied medicine at Dartmouth Medical School and received a medical degree from the University of Pennsylvania in 1942.

## Early research

During World War II, he researched the physiology of high-altitude flying and invented instruments for measuring gas pressure.

After the war he trained in psychoanalysis and at the University of Pennsylvania, where he began researching the physical structures of the brain and consciousness. In 1951 he published a paper showing how he could display patterns of brain electrical activity on a cathode ray display screen using electrodes he devised specially for insertion into a living brain.

## Development of the sensory deprivation tank

In 1953, he began a job studying neurophysiology with the US Public Health Service Commissioned Officers Corps. At the NIMH during 1954,<sup>[3][4][5][6]</sup> with the desire of isolating a brain from external stimulation, he devised the first isolation tank, a dark soundproof tank of warm salt water in which subjects could float for long periods in sensory isolation. Lilly and a research colleague were the first to act as subjects of this research.

He later studied other large-brained mammals and during the late 1950s he established a facility devoted to fostering human-dolphin communication: the Communication Research Institute on St. Thomas in the Virgin Islands. During the early 1960s, Lilly and co-workers published several papers reporting that dolphins could mimic human speech patterns.<sup>[7][8]</sup>

Subsequent investigations of dolphin cognition have generally, however, found it difficult to replicate his results.  
[citation needed]



Allen Ginsberg, Timothy Leary, and John C. Lilly in 1991

## SETI

Lilly was interested in the Search for Extra-Terrestrial Intelligence (SETI) project. In 1961 a group of scientists including Lilly gathered at the Green Bank Observatory to discuss the possibility of using the techniques of radio astronomy to detect evidence of intelligent life outside our Solar System. They called themselves *The Order of the Dolphin* after Lilly's work with dolphins. They developed the Drake equation to estimate the number of extraterrestrial civilizations in our galaxy.<sup>[9]</sup>

## Exploration of human consciousness

In the early 1960s he was introduced to psychedelic drugs such as LSD and (later) ketamine and began a series of experiments in which he ingested a psychedelic drug either in an isolation tank or in the company of dolphins. These events are described in his books *Programming and Metaprogramming in the Human Biocomputer: Theory and Experiments* and *The Center of the Cyclone*, both published during 1972. Following advice from Ram Dass, Lilly studied Patanjali's system of yoga (finding I. K. Taimni's *Science of Yoga*, a modernized interpretation of the Sanskrit text, most suited to his goals). He also paid special attention to Self-enquiry meditation advocated by Sri Ramana Maharshi, and was reformulating the principles of this exercise with reference to his human biocomputer paradigm (described in *Programming and Metaprogramming in the Human Biocomputer: Theory and Experiments* and *The Center of the Cyclone*). He later traveled to Chile and trained with the spiritual leader Oscar Ichazo (whose attitude to metaphysical consciousness exploration Lilly characterized as "empirical" in his book *The Center of the Cyclone*). Lilly claimed to have achieved the maximum degree of Satori-Samadhi consciousness during his training.

## Later career

He published 19 books in all, including *The Center of the Cyclone*, which describes his own LSD experiences, and *Man and Dolphin* and *The Mind of the Dolphin* which describe his work with dolphins.

In the mid and late 1970s he was an adviser to filmmaker George Lucas.<sup>[citation needed]</sup>

In the 1980s he directed a project which attempted to teach dolphins a computer-synthesised language. Lilly designed a future "communications laboratory" that would be a floating living room where humans and dolphins could chat as equals and where they would develop a common language.

He envisioned a time when all killing of whales and dolphins would cease, "not from a law being passed, but from each human understanding innately that these are ancient, sentient earth residents, with tremendous intelligence and

enormous life force. Not someone to kill, but someone to learn from."<sup>[10]</sup> During the 1990s Lilly relocated to the island of Maui in Hawaii, where he lived most of the remainder of his life.

His literary rights and scientific discoveries were owned by Human Software, Inc., while his philanthropic endeavors were owned by the Human Dolphin Foundation. The John C. Lilly Research Institute, Inc. continues to research topics of interest to Lilly.

## Solid State Intelligence

Solid State Intelligence or SSI is a malevolent entity described by John C. Lilly (see *The Scientist*). According to Lilly, the network of computation-capable solid state systems (electronics) engineered by humans will eventually develop (or has already developed) into an autonomous life-form. Since the optimal survival conditions for this life-form (low-temperature vacuum) are drastically different from those needed by humans (room temperature aerial atmosphere and adequate water supply), Lilly predicted (or "prophesied", based on his ketamine-induced visions) a dramatic conflict between the two forms of intelligence.<sup>[citation needed]</sup>

## Cultural references

Lilly's work, with dolphins and the development of the sensory deprivation tank, has been referenced in movies, music and television productions. In the 1972 novel *The Listeners*, Lilly and the other scientists who were members of the *Order of the Dolphin* are mentioned as pioneers by the book the Search for Extra-Terrestrial Intelligence.<sup>[11]</sup> In the 1973 movie *The Day of the Dolphin*, George C. Scott portrayed a Lilly-esque scientist, known to the dolphins as "Pa", who succeeded in teaching a dolphin to speak elementary English.<sup>[12]</sup>

The 1980 movie *Altered States* features actor William Hurt regressing to a simian form by the combination of ingesting psychoactive substances and then experiencing the effects of prolonged occupation of a sensory deprivation chamber.<sup>[13][14][15]</sup>

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## See also

- Cetacean intelligence
- Hallucination
- Hallucinations in the sane

- Schizotypy

## References

### Notes

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4. ^ Gelb 2007 p. 140
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9. ^ <http://frombob.to/drake.html> Beyond the Drake Equation by Douglas S. Jones
10. ^ John C. Lilly Dies at 86. Written as a message to visitors on John Lilly's personal website ([www.johnclilly.com](http://www.johnclilly.com)), and quoted in the New York Times Obituary by Andrew C. Revkin October 7, 2001 Accessed October 2007
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## External links

- John C. Lilly Homepage (<http://www.johnclilly.com/>)
- Interview by David Jay Brown (<http://www.mavericksofthemind.com/lilly-int.htm>)
- Official obituary copy at the Internet archive (<http://web.archive.org/web/20041009204106/http://mindprod.com/obitlilly.html>)

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