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FREEMAN DYSON
On Global Warming, the Nobel Prize, and His Favorite Runner

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the WORLD to talk about

BY ELLEN GILBERT • PHOTOS BY BENOIT CORTET

It comes as no surprise that the 87-year old "retired" physicist Freeman Dyson is absolutely delighted about recent Wikileaks of U.S. State Department information.

"It's what we badly need," he says, surrounded by books in his Institute for Advanced Study office. "This country is just tied up in secrecy which conceals embarrassments and nothing vital."

Taking on the controversial is nothing new to the British-born polymath. His dismissal of dire warnings about global warming have shaken more than a few scientists and policy-makers, but he remains unabashed about it. In *Infinite in All Directions*, his 1988 collection of essays on everything from the prospects of immortality to nuclear weapons and the frontiers of space, Dyson writes that "the professional duty of a scientist confronted with a new and exciting theory is to try to prove it wrong. That is the way science works. That is the way science stays honest."

There is a sense, though, that some mischief is at work in Dyson's unapologetic and sometimes unpopular perspectives on what's going on in the world. "As an eight year-old I have no credibility at all," he says with a distinct gleam in his eye. "I speak as a citizen not as a scientist, but I think I know a rip-off when I see one. Lots of people have made a profession out of global warming."

"There's no accounting for human folly," Dyson told a Nassau Club audience two years ago when he was asked about Al Gore's Nobel Prize. Reporting that on a recent trip he and his wife, Imme, found Greenlanders to be delighted with their warmer climate and increased tourism, Dyson suggested that representing "local warming by a global average is misleading." He decried the use of computer modeling to make "tremendously dogmatic" predictions about worldwide trends, without acknowledging the "messy, muddy real world" and the non-climatic effects of increased carbon dioxide. "There is no substitute for widely conducted field operations over a long time," he said, citing the "enormous gaps in knowledge and sparseness of observation" that, he believes, characterize the work of global warming experts.

MARATHON RUNNER

Vivacious and endearingly petite (she says she buys her clothes and shoes in children's departments), German-born Imme Dyson is best known these days as an accomplished runner. She has participated in marathons all over the world, and where she goes, Dyson follows. His being there insures that she's "the only privileged person with a thick winter coat on until the starting gun goes off."

"I love to go to the races," he confirms, proudly adding that "Imme is good; she wins."

Besides winning races, the pleasures of running may have something to do with Mrs. Dyson's contentment in Princeton, where they have lived for over 50 years. Every Sunday she and a "big group" of other runners ("they're great friends") do a 12-mile run through town. Even going solo is not that lonely: "the birds talk to you, the trees are there, you run down Nassau Street and see life," she explains.

A young Freeman with sister Alice.

Her passion for running is the result of the kind of serendipity her husband likes to find in the world. "Not an athlete," she began as a swimmer in a local pool, only to be inadvertently whacked on the head one day. "I didn't want to go back in the pool," she reports. Sensing that something was missing, her children encouraged her to take up running. A complete convert now, she says that "it's better than swimming."

PRINCETON

When it comes to the subject of Princeton, the Dysons have somewhat differing opinions. He uses the word "snobbish" to describe the community, noting the University's disdain for anyone without a Ph.D. He, of course, was an exception. He was welcomed on the basis of his ground-breaking work in quantum electrodynamics, topology, analysis, number theory, and random matrices.

Dyson cites the admission of girls to the University in the late 1960s as having a civilizing influence on the town, but regrets that it has grown "bigger and more expensive." Belonging to the Institute is extremely important to him: "I have friends all around me and a place at lunch."

"I think it was perfectly wonderful," says Mrs. Dyson of her four daughters' formative years in Princeton. "It is a shock, though, when you come out of the Princeton school system," she acknowledged. She says that she warned her younger daughter that the "wonderful schools" and community here "are not really the world," and hopes that her daughter is following that same advice as she raises her own four children in San Diego, where the Dysons spend every summer.

THE NOBEL?

"They've done remarkably well in picking their people, especially in Physics," says Dyson when asked about the Nobel Prize. While a number of people have suggested that it should have gone to him by now, Dyson is characteristically modest about it. "I didn't do that kind of work," he says. "I was always a dabbler." In mischievous Dyson fashion he is compelled to add that it's better this way: "If I had gotten it, everyone would be asking why I deserved it. It's much better for them to be asking why I don't have it."

While Dyson describes himself as a "scribbler of equations" who also loves science, it seems entirely appropriate that he received the 2000 Templeton Prize, which honors a living person who has "made an exceptional contribution to affirming life's spiritual dimension, whether through insight, discovery, or practical works."

"It's perfectly fine to have several things different things going on at the same time," he says when asked about having room for both religion and science in his life. "They're both about mysteries," he explains. "There are different sorts of religions and different sciences. They both explore in different ways."

Dyson's capacity for looking at the big picture was evident early on. In a 1948 letter to his parents describing a long road trip he was preparing to take with physicist Richard Feynman ("the bright young professor of whom I have often spoken"), he writes that it "should be a fine trip, and we shall have the world to talk about."

While the time of "enormous miracles" in science, like the discoveries of vaccines, antibiotics, and cortisone "stopped 20 years ago," Dyson is still excited about the potential for science to make a difference in the world. He is a member of the Jasons, an independent group of scientists who advise the U.S. Government on matters relating to science and technology. Most recently they focused on the genome, and while the Veterans Administration has been able to cheaply amass millions of them, the work is what Dyson describes as a "medical disappointment."

"The answer is that we simply don't know what the genomes are good for," he says. "There was the illusion that it would cure many diseases, but it doesn't." Having grown up in 1930s England in the midst of "a pretty hopeless situation, with Hitler, unemployment, and pollution," Dyson is nothing if not an optimist, however. While there is still a lot of work to do on the genome, he believes it will someday be important in knowing, for example, how to treat cancer.

He is at ease with ambiguity. In *The Scientist as Rebel* (New York Review of Books, 2006), Dyson writes that science "is a mosaic of partial and conflicting visions." The common element, he adds "is rebellion against the restrictions imposed by the locally prevailing culture, Western or Eastern as the case may be."

Dyson's usual cheerfulness disappears when talk turns to the war in Afghanistan. "I marched against it," he says. "We saw right away that it would be bad, and Obama hasn't gotten it yet. Afghanistan and Iraq were both disastrous wars and cost this country enormously."

These days he sees "the center of gravity" moving towards China, a fact that he finds completely satisfactory. "They're great people. They should be leaders, and they will be." He expresses sorrow, however, that while affluence appears to be coming to China, elsewhere the rich are getting richer and the poor are becoming poorer. "We're doing very badly on poverty," he says flatly. "It is very sad; when I came just after World War II this was a very friendly country. Rich and poor were not afraid of each other." That has changed, he says.

Despite his spiritualism and belief in "taking the long view," Dyson has no illusions about achieving immortality. "'Drive your cart and your plow over the bones of the dead,'" he says, quoting William Blake "It would be a disaster if they find a cure for death," he says, as he and Imme proudly display multiple images of their grandchildren. "The future is in good hands." P

Freeman next to beloved wife Imme.