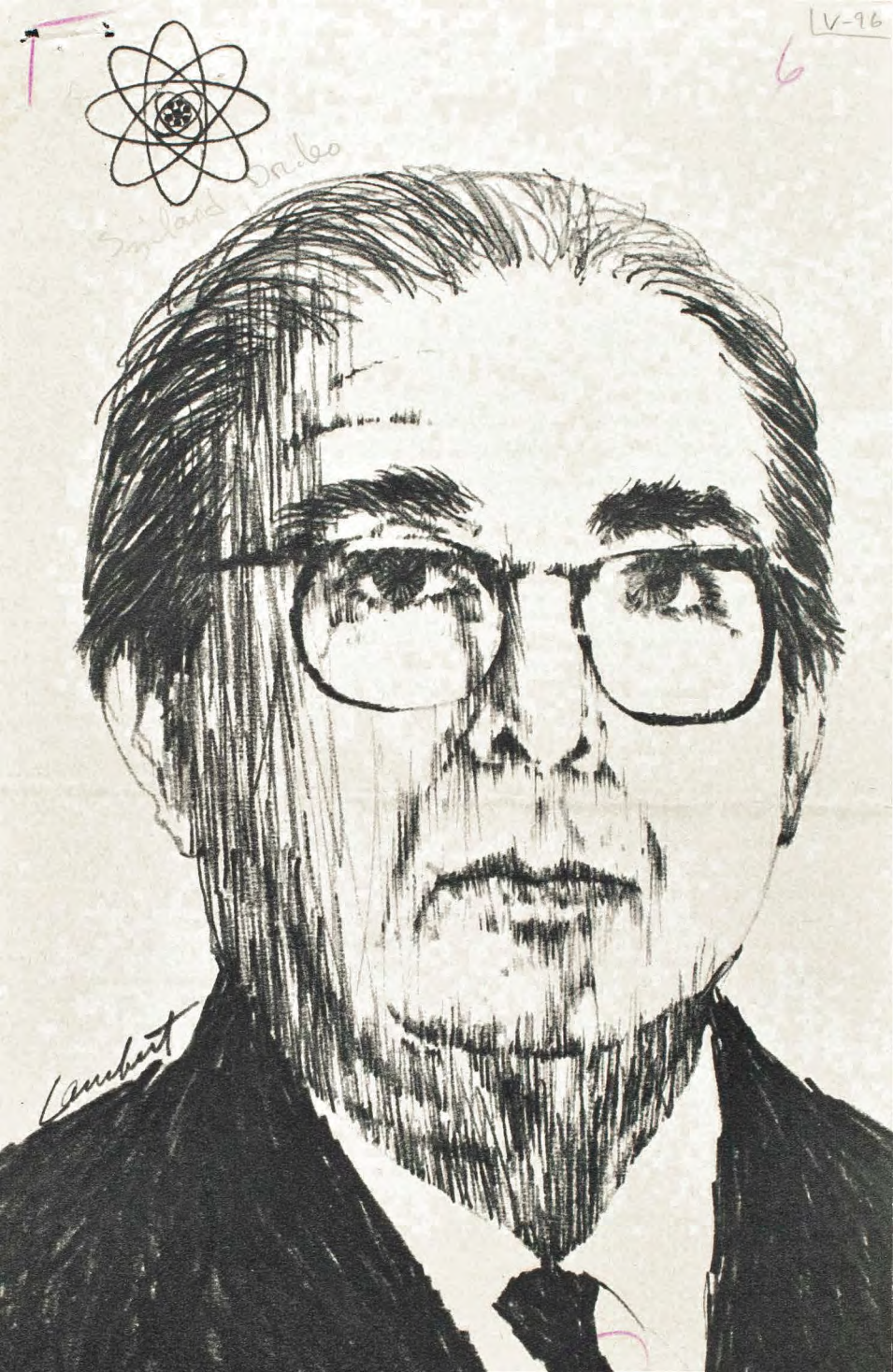
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Leonard Dubo
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THE REASON WHY

A look at any daily newspaper will show that people are always doing unusual things. But there's usually a reason—as these incidents recently reported in the press clearly reveal.

■ IN IOWA CITY, Iowa, the opening of a play titled *Beyond Our Control* at the University Theater had to be postponed.
The reason: The worst snowstorm in seven years made it impossible for ticket-holders to reach the theater.

■ JUST RETURNING from their honeymoon, newlyweds Mr. and Mrs. Dolan, of Bethel, Conn., looked up and down the street, couldn't see a sign of their small-size foreign car.
The reason: The groom's brother, a building contractor, had pulled a practical joke by lifting it to their second floor apartment with a crane, pushing it in the bay window and setting it on the living room rug.

■ IN WASHINGTON, D. C., a 21-year-old woman sued a coin-operated laundromat for $40 and the owner sued back for $101.
The reason: She claimed the drying machine temperature was set so high it melted her falsies. The laundromat owner said she ignored a warning sign, kept her falsies in too long, and burned out the machine.

■ IN LONDON, ENGLAND, the Wholesale Clothing Manufacturers Association, representing 80 per cent of the clothing industry, had words of praise for juvenile delinquents.
The reason: A survey showed that juvenile delinquents, called "Teddy boys" over there, were better dressers than the non-delinquents, using "great care in such details as polished shoes and crisp, clean shirts." Non-delinquents tended to be very sloppy.

■ WANTING TO GIVE vacationers the feel of the Old Northwest, the Trail Riders of the Canadian Rockies—which sponsors horseback camping expeditions—had to call in a Calgary awning-and-tent-maker plus a woman painter to provide Indian tepees along the trail as part of the atmosphere.
The reason: The Indians, no longer living in tepees, had forgotten how to make their ancestral homes and had forgotten how to decorate them. Awning company make'um, paleface lady paint'um. ■■

Unnoticed by most passers-by, one of the great scientists of our time works quietly at a desk in a Washington hotel. It was he who sparked the development of the atomic bomb. Now, despite a cancer expected to take his life months ago, his interests have never been more varied—from universal peace to a gadget that makes instant tea

The Legend That Is Dr. Szilard

BY THEODORE IRWIN

■ EARLY LAST YEAR newspaper columnists reported that Dr. Leo Szilard had only six weeks to live. Yet one morning recently I found him seated at a desk in the lobby of a hotel in Washington, D.C. With people eddying around him, Dr. Szilard was calmly working on a scientific paper of potentially far-reaching significance.

Few, if any, of the guests and visitors in the hotel lobby recognized this gray-haired, round-faced man. A lazy-eyed look belies his brilliant and fantastically versatile mind. Though he's a living legend, Dr. Szilard has always seemed to move in an aura of mystery.

Dr. Szilard—now 63 and supposedly dying of cancer—has performed a unique role in modern history. With physicist Enrico Fermi, he held the first patent on the atomic chain reaction, which they assigned to our government.

It was Dr. Szilard who convinced his old friend Albert Einstein that an atomic explosive was practical and that Einstein should so inform President Roosevelt. Einstein's subsequent letter set in motion the development of the first atom bomb.

Characteristically, however, Dr. Szilard vigorously opposed dropping the A-bomb on Japan. For years now he has crusaded for arms control and disarmament—Dr. Szilard's cancer must wait while he dedicates himself to saving the world from suicide. To him, what happens in Berlin, Cuba and Tunisia—the fight for peace—is far more important than his own fight for life.

His cancer of the bladder was of a highly malignant type. "It did look very bad," he admitted to me. He spent about a year at a New York hospital, keeping himself

busy with correspondence. In January 1960, he was given radiation treatment, and so far he has responded to it. Now he has what he calls "some minor residual surgical problems"; he carries a drainage bag attached to a tube in his bladder, but the only outward sign is his holding a hand to his side while walking.

"I don't believe my cancer is licked," he said to me matter-of-factly. "My time is probably limited. But everyone's time is limited, isn't it?"

We took over a sofa in the hotel lobby as Dr. Szilard talked freely about what was on his mind. Despite his illness and evident discomfort, he sparked energy and continually displayed his masterly sense of irony. It became clear that here was an unassuming, deep-thinking, sharp-tongued intellectual maverick.

"Cancer is grossly overrated," he went on. "People worry about it because it's such a frightening disease. But if a cure were found, those who are cured would merely die later of some other ailment. A cure for cancer would add only about two and a half years to the life span of the average adult. Cancer is predominantly a disease of older people, and the basic process of aging is left untouched by anything medicine can do."

Why has he come to Washington to do his work?

"The four years of the Kennedy administration," he replied, "might well set the course of events for a generation. I want to know what's going on and I can't find out just by reading the newspapers. So I've come to see it all at close range—to catch the flavor and to appraise the trend of what's happening. I see many people, including some of the President's advisers. I listen to them, and maybe sometimes they listen to me."

Dr. Szilard selected his hotel—the DuPont Plaza, about 15 minutes from the White House—because it has a large, light-filled lobby where he can work. To a desk generally used by guests to write notes home to the family, he customarily brings a slide rule and a folder bulging with memos, reports and correspondence. He feels cramped in his 12-by-15 room, where his papers are piled high on a row of coffee tables. And he doesn't mind distractions.

"Perhaps it's better if an idea does not become conscious too early," he said. "If distractions can keep an idea from emerging prematurely, it can continue to grow in the subconscious."

THERE'S NO EVIDENCE that illness is obstructing the avalanche of Dr. Szilard's ideas. One of our most versatile scientists, he has labored in the realms of nuclear physics, chemistry, biology, radiology and, currently, microbiology. Dr. Szilard has been described as an "idea factory," and even he thinks of himself as basically an inventor rather than a scientist.

In addition to his solid accomplishments in nuclear physics, Dr. Szilard has made big dents in sundry other fields. Not long ago he published a provocative paper on the aging process, and it may have a revolutionary significance. His is the first scientific theory intended to supply the long-elusive answers to such questions as "How do we be-

DR. SZILARD NAMES THE KEY PROBLEMS OF OUR TIME

The issue of disarmament Dr. Szilard considers one of the five most important problems of our time. The others:

- **"We must invent new forms of democracy** which will be capable of functioning in the various underdeveloped regions of the world. If the parliamentary form of democracy is imposed on new countries—like Ghana, for instance—the first government in office might take steps to perpetuate itself."
- **"It is necessary to develop new forms of birth control** which will meet the needs of countries like India. The first thing that happens when certain overpopulated regions are given economic aid is that infant mortality goes down while the birth rate remains unchanged. As a result, the population shoots up so fast that no economic growth can keep pace with it."
- **"We shall need to rearrange our leisure time.** If there is no war, working hours may drop within the predictable future to thirty-two hours a week in America. This would mean three-day weekends, which make no sense at all. Rather, we ought to have one-day weekends and three months' paid vacations. This would build up the vacation industry. Many people would take their vacations abroad, and what they would spend abroad might take the place of grants-in-aid."
- **"Perhaps the time has come to try to get rid of sleep.** The mechanism which forces us to go to sleep developed during the evolution of man, at a time when—during the darkness of night—sleep may well have been the most useful kind of activity. If we did not have to sleep, this would mean our living time could be extended fifty per cent."

gin to die?" and "Just where does the mysterious stroke of death originate?" Roughly, his complex theory holds that the age at death is determined by one's genetic make-up.

Shortly after completing this paper, he started ruminating about the mechanism of antibody formation (immunity). For three years a link in his theory was missing; then, on a plane from Stockholm to New York, the big idea struck him and "the whole thing started to make sense." He spent the next few months writing two papers on the subject.

"This is how science progresses," he said. "But don't ask me to explain my theory to laymen," he added, smiling. "I can't do it."

As a pastime, generally during summers, Dr. Szilard has occupied himself with all kinds of curious notions and schemes. "I can't deal with major problems all the time," he said. "I'd get stale."

He has come up with a gadget that makes instant tea, explored ways to accelerate checking counters at supermarkets, pointed out loopholes in our tax laws, dreamed about improvements for injector

razors, and once proposed that we have dual currency—green dollars for wages, red for credit in the bank. His plan for the financing of universities is as complicated as a Rube Goldberg madcap gadget.

When the problem of population control captured his fancy, Dr. Szilard learned that beads used by women in India for determining their infertile periods often slipped out of place. So he devised a clasp to keep the beads in line.

Global affairs have always intrigued him. Early in 1947, Dr. Szilard proposed that the United States supply economic aid on a vast scale to countries in Europe and elsewhere to build up their industries. The Marshall Plan came three months later.

Unlike most people, Dr. Szilard doesn't find he has to relax periodically from his unending flow of ideas. But when he does, it's to listen to music, chiefly Beethoven and Mozart, or to read—Shaw, H. G. Wells, Boswell, and "English lady novelists." He hates to keep regular hours and schedules. Exercise? "When I feel the need, I lie down until the urge passes." He has never owned a home. "I would have liked to have roots," he confessed, "but if I can't have roots I settle for wings."

Notwithstanding his many interests, Dr. Szilard insists that he is never too busy. "Since my time may be limited, I plan ahead for three months. After that, with luck, I shall plan for another three months."

Currently he is on a ten-year, free-swinging research grant from the University of Chicago, which pays his and a secretary's salary and his travel expenses. It provides him with all the freedom he needs. At present Dr. Szilard is "looking for information" that may give him a clue to the mechanism of memory, one of his pet projects now.

He also wants to complete his memoirs. He has written 60,000 words but feels the book will require another quarter-million. "It will get across the thesis," he said, "that Homo sapiens resembles the apes in most respects, but that Homo sapiens is completely devoid of any imagination."

As proof he points out that for more than two years before World War II man was unable to see the meaning and importance of the atomic chain reaction.

Leo Szilard's memoirs should make fascinating reading. Born in Hungary, the son of a civil engineer, he studied electrical engineering in Budapest. Then he switched to physics, in which he received his doctorate degree, in Berlin. There he developed new concepts in thermodynamics and conceived the basic idea for the cyclotron, an atom smasher. With Albert Einstein, he also took out a patent on an electric contrivance for pumping liquid metals.

WHEN HITLER SEIZED power in 1933, Dr. Szilard flew to London. It was then that he entered what was at the time a new sphere of science—nuclear physics.

One day in 1934, as he paused at a street intersection in London, questions about the atomic chain reaction suddenly hit him like a bolt of lightning. What would happen if there was a chain reaction in which some element absorbed one neutron and discharged two? What could that element be?

For months he thought about it, usually in the most private place he could find—the bathtub in his hotel room. Already he could visualize the horrifying havoc that might be produced by the atomic process. His driving ambition was not to become a millionaire by exploiting the process but somehow to work out methods of controlling it.

In 1938, as war clouds loomed over Europe, Dr. Szilard came to the United States (he is now an American citizen). A year later, word filtered in that the uranium nucleus had been split by scientists in Europe. Dr. Szilard felt that the Germans were bound to create an atomic bomb.

On March 3, 1939, he and an associate, Dr. Walter Zinn, made what was to prove an earth-shaking discovery: their experiment showed neutrons being emitted in the process of fission. Almost simultaneously, Enrico Fermi and France's Frédéric Joliot-Curie made similar discoveries.

Dr. Szilard teamed up with Fermi at Columbia University, and from their work the design for the first self-sustained atomic chain reaction emerged.

High U.S. government officials had been skeptical of the early developments. On August 2, 1939, inspired by Dr. Szilard, Albert Einstein sent his celebrated letter to the President. It stated:

"Some recent work by E. Fermi and L. Szilard, which has been communicated to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future.

"Certain aspects of the situation which have arisen seem to call for watchfulness and, if necessary, quick action on the part of the Administration."

That letter produced results: the first Army and Navy grant—$6000—to aid atomic research at Columbia.

In 1945, when plans were made to drop the A-bomb on Japan, Dr. Szilard recalls that he opposed it "with all my power." He prepared a prophetic memorandum for FDR warning that the use of the bomb against cities "would start an atomic-arms race with Russia." He raised the question whether avoiding such a race might not be "more important than the short-term goal of knocking Japan out of the war."

TO AVOID GOING through the regular channels, Dr. Szilard arranged to give his memorandum to Mrs. Roosevelt in a sealed envelope, which she could hand to the President.

Shortly before his meeting with Mrs. Roosevelt, Dr. Szilard heard the report over the radio: President Roosevelt was dead!

Later, when the scientist tried to see President Truman, he was shunted to James F. Byrnes, slated to be Secretary of State. Byrnes brushed him off. So Dr. Szilard drafted a letter to Truman, had it signed by some 60 atomic scientists and sent it to the President through official channels. To this day, Dr. Szilard doesn't know if the petition ever reached him.

Until 1946 Dr. Szilard worked at the University of Chicago's branch of the A-bomb project. Then, perhaps in revulsion against Hiroshima, he turned from physics to biology—

from death to life. His work in genetics unlocked important secrets about mutations and, with a young chemist, he developed the chemostat, a device for growing bacteria and observing mutations under controlled conditions.

Last year Dr. Szilard was awarded the Einstein Medal by the Strauss Memorial Fund for "outstanding achievement in natural sciences" and for his scholarship "in the broadest areas of human knowledge." Shortly afterward he received a Ford Atoms for Peace Award for his work on uranium fission in 1959, sharing $75,000 with another recipient.

Lately Dr. Szilard's memoirs have been pushed aside for other literary efforts. Purely for pleasure he wrote children's stories, which he didn't care to have published. Then there is his fast-selling new book of short stories, *The Voice of the Dolphin,* a special Szilard brand of science fiction. (It's available in paperback here and has editions in Italy, France, England and Germany.)

The off-beat stories—barbed with wit, irony and razor-sharp satire—usually carry a serious message. "When I tried to explain what disarmament would involve," he told me, "people did not understand me. In fiction, I find I can get across what I want to say."

In the title story, Dr. Szilard describes how the world achieves general disarmament—25 years hence. In other stories, Dr. Szilard pokes sophisticated fun at Communist bureaucracy, research foundations, and the foibles of scientists.

He is deriving a keen delight from the response to his book. Several fellow-scientists wrote him that they couldn't finish it—their college-age sons or daughters got hold of the book first and they never saw it again. Sociologists have urged that the book be classified as required reading in college.

AS WE CHATTED in the hotel lobby, we were joined by his wife, Dr. Gertrud Szilard. Married ten years, they have no children. Mrs. Szilard, a trim, attractive physician, recently resigned her post at the University of Colorado Medical School to be with her husband; her specialty is preventive medicine and she is now Leo's personal doctor. ("Leo's chances are getting better every day," Mrs. Szilard confided to me later, over a Hungarian salami sandwich prepared for me in her kitchenette.)

Despite his unorthodox views, Dr. Szilard has never been under personal attack. "That's because I confuse them—I can't be pigeonholed," he said. And Mrs. Szilard added: "Leo has no ax to grind. He has no status problem and he doesn't give a hoot what other people think of him."

What may make him unacceptable in some quarters is his strong stand on disarmament. These days he is diligently writing memos on the subject and circulating them around Washington, and they manage to reach some of President Kennedy's advisers.

"General disarmament would not automatically guarantee peace," Dr. Szilard said, "but I believe that peace could be secured in a generally disarmed world if the nations were to accept what may be reasonably demanded from them on this score.

"The difficulties of instituting a

system of inspection that would eliminate the danger of secret evasions of a disarmament agreement are grossly overrated. But general disarmament will be politically acceptable only if there is a concomitant political settlement.

"A political settlement in Europe might not be too far away," the scientist went on, "but it does not seem to be within sight in the Far East.

"It may well be that some future historian will, in retrospect, diagnose the trouble with America in the mid-century as 'too much patriotism and too few patriots.' "

EXCLUDED FROM Dr. Szilard's pet projects is the challenge to reach the moon. "I don't object to spending twenty billion to get there," he says, "but only because if we must engage in a contest of prestige with the Russians, I prefer that it be centered around the moon rather than Cuba, Laos or Berlin."

Obviously Dr. Szilard considers his greatest contribution to be his investigation of the uranium chain reaction. He insists he has no sense of guilt about it, but he does feel it "may end badly." Could he place a dollar value on his work? His reply: "What is the value of having won the war? On the other hand," he added, dead-pan, "we may be all blown up and then maybe the government should sue me for damages."

THIS IS Dr. Leo Szilard, one of the illustrious minds of the century, an intellectual adventurer with an uncanny ability to conceive revolutionary ideas.

The cancer that threatens to cut his life short leaves him with an amazing stoicism.

"Death is part of life," he said to me. "If it didn't exist, one would have to invent it. There is nothing alarming in thinking that after your death you'll be in the same state as you were before birth."

He would even like to write his own epitaph.

"You're meant to perform some specific function in life, and you have no choice but to do it. I would like my epitaph to read, 'He did his best.' " ■■

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