

The physicist's tale

Walter Gratzer

La vie à fil tendu. By Georges Charpak with Dominique Saudinos. *Éditions Odile Jacob*, Paris: 1993. Pp. 240. FF130 (pbk).

YOUTH, wrote Benjamin Disraeli, is a blunder, manhood a struggle and old age a regret. Yet not so for Georges (formerly Grisha) Charpak: youth for him was a fearsome test of moral fibre and endurance, maturity, it seems, a serene progress from conquest to conquest, and the advancing years have brought only a meagre satisfaction.

Scientists' lives (as has been abundantly demonstrated in recent years) are only rarely worth the telling. They capture the reader's attention when the world beyond the confines of the laboratory intrudes or when an anecdote reveals something unexpected, preferably discreditable, about some illustrious contemporary. Charpak's early life was indeed interesting, for, like other Central European Jews of his generation, he was caught up in the maelstrom of historical events and, unlike most others, survived. He grew up, a Yiddish speaker, in a *shtetl* in the Polish Ukraine between the wars. His parents sought escape from poverty and an uncertain future by emigrating, and after some false starts, including a period in Palestine, landed in Paris.

Charpak discovered early on a taste for mathematics and got a precarious foot on the academic ladder simply by presenting himself at the door of the nearest *lycée* and demanding admission. The privations of life in a grindingly poor immigrant community were made tolerable for the young Georges by his membership of a communist youth organization, the Red Falcons, and then — when the Soviet–German pact brought, as to so many other idealists, disillusion with Stalinist rhetoric — the more wholesome *Auberges de Jeunesse*. There he found around the camp-fire a companionship and solidarity that sustained him in the trials to come. For Charpak, stung by the antisemitism of many of his school-fellows under the German occupation, and eager for the good fight, joined a resistance group, was caught by the Vichy police, imprisoned and not long after sent to Dachau.

Tall, blue-eyed and now Charpentier, he passed easily enough for a *goy*, except for one hideous moment when he went to sleep on his feet and was heard mouthing Yiddish by a passing German officer. His hot denials were accepted and the discipline and selflessness that distinguished him and his group of friends saw him through. He gives a moving account of what he observed during this gruesome time.

The invasion of Hungary in 1956 imbued Charpak with a terminal disgust for communism, and dismay at the venality and incompetence of the Fourth Republic made him resolve henceforth to concentrate his energies on physics. French physics at that time was largely stuck in the

physics) and it was there that he made the majority of his most celebrated discoveries, which led him eventually to the handshake with the King of Sweden (to universal acclaim, as I understand, from the particle-physics community). After Stockholm there follow accounts of the usual pleasures of the Nobel laureate's pampered life — summer schools and lectures in agreeable places, eye-opening encounters with exotic peoples, good works for deserving causes and even a little more science.

A contemporary historian once remarked that the advantage of autobiography is the opportunity it gives of telling

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Georges Charpak at CERN in 1992.

nineteenth century. Charpak is discreet in his account. Theoretical physics was dominated by the duc de Broglie, who ran a group absorbed in abstractions with little bearing on the stirring events that were unfolding in physics laboratories elsewhere. A gulf separated theoretical and experimental physicists. Jeremy Bernstein in *The Life it Brings* has portrayed the place and time with greater candour and aplomb. Louis Leprince-Ringuet, who, Charpak says, directed a world centre of excellence in the study of cosmic rays, was according to Bernstein one of the last of the Baconians, untroubled by the constraints of theory: you had only to put your photographic plate in the right place, and, in Bernstein's words, God would provide.

Charpak finally found a patron in Frédéric Joliot, by then much preoccupied with scientific politics, and he began to develop a passion, which has endured throughout his career, for the design of particle detectors, with at their heart the "taut wire" of the title. Charpak's scientific life was mostly centred on CERN (European Laboratory for Particle Phy-

the truth about other people. Charpak does not see things in this way: he is courteous about everybody in physics, even the dead, and he gives no hint of the mephitic atmosphere that, according to other accounts (Gary Taubes's *Nobel Dreams* for example) pervaded much of CERN. There are some decent anecdotes — the radioactive overcoat, disposed of in gobbets in dustbins around the city, the human head, preserved in formaldehyde and carried around in a sports bag, for research on the development of an imager, and a few more.

We are left then with a self-portrait of a clearly exceptional scientist and a genial man, who has lived an admirable life. He is also one of the last of a remarkable breed; a generation born of adversity and hungry for intellectual nourishment, has faded away. A new and equally determined brood has emerged from quite other lands, and to them the torch is now passing. □

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