to the successful counterinsurgency operations conducted by the British in Malaya, Kenya, and elsewhere. This argument, not dissimilar to an apprehended burglar justifying his methods by saying he had committed many excellent burglaries in the past, was a curious one for the former chief justice to propound. A government minister questioned in Parliament in December had admitted to use of the interrogation techniques by British forces on only two occasions in the past—in Brunei in February to March 1963 and in Aden between 1964 and 1967. The chief architect of the security operations in Malaya, Sir Robert Thompson, is on record as denying the efficacy of torture: "[A suspect] . . . can be interrogated on the basis of a mass of information already available to the intelligence organization. This shocks the truth out of him far more effectively than torture."§

The efficacy of the techniques used in Northern Ireland was disputed even more directly by the British government's former senior psychologist for prisoner of war intelligence from 1951 to 1961, Cyril Cunningham. "If the Royal Ulster Constabulary, or indeed the Army, is using the methods reported," Cunningham wrote in the London *Times* after the appearance of the Compton report, "they are being singularly stupid and unimaginative. Interrogation by overt verbal examination backed by fear is a blunt, mediaeval and extremely inefficient technique." Since Cunningham's tenure of office overlapped several of the emergencies in which Parker claimed the techniques were used, it seems possible that the Parker committee was misinformed by official witnesses.

Finally, the commandant of Britain's interrogation center during World War II explained in a letter to the London *Times* that the methods used on German prisoners were "processes of 'painless extraction' seasoned with legitimate guile. . . . It is the simple truth to say that if one of our interrogators had suggested submitting any prisoner to *any* form of physical duress (which would certainly not have been permitted) he would have been a laughingstock among his colleagues."

What was the expectation of those who permitted the brainwashing techniques to be tried in Ireland? And how did the British army get into the business of developing such techniques in the first place? Apologists stress that British soldiers need to be trained in resistance to these techniques in event of war with, for example, the Soviet Union. Maybe the hooding and the noise machines were developed at the army intelligence center in the expectation that the Soviet Army would have made some improvements in the crude sensory deprivation techniques used by the NKVD in the 1930's. With the techniques in existence, the temptation to use them presumably became irresistible. Yet, as was pointed out by a group of psychologists who gave evidence to the Parker committee, the brainwashing techniques may break down a man's resistance to talk, but they also make him highly suggestible. Whether he is more likely to speak the

§ Sir Robert Thompson, *Defeating Communist Insurgency* (Chatto & Windus, London, 1966), p. 87.

Katchalsky Killed in Tel Aviv

On Tuesday evening, 30 May, Aharon Katzir-Katchalsky was in Tel Aviv's Lod airport on his way home to the Weizmann Institute of Science in Rehovot. He never made it. Katchalsky, a scientist of the highest repute, was gunned down in the terrorist attack that took the lives of more than two dozen other persons.

Katchalsky, described as a citizen of the world by his many friends and admirers in the American scientific community, was an eminent biologist who devoted his career to understanding life at the molecular level. Educated in biology (he received his undergraduate and Ph.D. degrees from Hebrew University), he moved on to physical chemistry and the study of protein and protein-like polymers, specializing in the electrolytic properties of chain molecules. His colleagues credit him with opening the field of polyelectrolyte research in the late 1940's. A theoretician who had a profound understanding of thermodynamics, Katchalsky is also known for his contributions to our knowledge of the transport of molecules through biological membranes.

Most recently, the 58-year-old Polish-born scientist, who spent his professional life in Israel, turned his attention to neurobiology. According to Francis O. Schmitt of the American Academy of Arts and Sciences in Boston, Katchalsky was an active participant in that organization's neurosciences research program and had been in Boston for a couple of weeks in May. An authority on "irreversible thermodynamics," Katchalsky was trying to understand the functioning of the brain and the molecular basis of memory. Says Schmitt, "Nucleic acid chains come apart on electrical stimulation and do not come together again as before. Katchalsky considered this a model of memory."

A frequent visitor to the United States, he was a visiting professor at the University of California at Berkeley in 1967–1968 and was elected a foreign associate by the National Academy of Sciences in 1971.

As much as he will be remembered for his scientific achievements, Katchalsky, known in Israel as Katzir, will also be remembered for the strength and vitality of his personality and for the brillance of his teaching. "Nobody who ever met Katzir-Katchalsky ever forgot him," says Gary Felsenfeld, of the National Institutes of Health, who visited Katchalsky's lab a couple of months ago. Typical of his passion for knowledge and his desire to create a fertile environment in which scientists could work was a trip he organized for his colleagues—a stimulating respite from the lab. As Felsenfeld recalls the day, they went first to Jerusalem where they toured the obscure quarters of the city with a guide Katchalsky had found, seeing neighborhoods that otherwise would have escaped their ken. From Jerusalem, they journeyed to the Dead Sea where Katchalsky, a "natural lecturer," told them about the biology of the place as well as about its history.

Says Schmitt, who was with him on the day before his death, "He inspired everyone who knew him by both his great learning and his great enthusiasm, even though not everyone understood some of the esoteric aspects of his science. His murder is a very terrible loss."

—BARBARA J. CULLITON