

REMARKS AT THE OPENING CEREMONY*

ANDRZEJ TRAUTMAN

Institute of Theoretical Physics, University of Warsaw
Hoża 69, 00-681 Warszawa, Poland

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I wish to join Marek Demiański in welcoming the participants of the meeting. I am especially delighted by the presence here of Hermann Bondi and Roger Penrose. This conference was initiated by a small group of people who had been associated with Leopold Infeld's research seminar in Warsaw. Most of us are approaching retirement and we felt that this year's anniversaries provide, for us, a last opportunity to commemorate Infeld, express our gratitude to him and, above all, tell our younger colleagues about the beginning of the Institute of Theoretical Physics in Warsaw and Infeld's role in creating it. Unfortunately, many of those that were active in that early period are no longer with us; we lost Józef Werle a few weeks ago.

My association with Leopold Infeld and his school of theoretical physics at Hoża began in 1955: after completing studies at the Technical University (Politechnika Warszawska), I came here to do graduate work in Infeld's group. Jerzy Plebański, a close collaborator of Infeld, now in Mexico, was the person who encouraged me to come to Hoża; he had supervised my work until 1958, when he went to Princeton on a Rockefeller fellowship. My first contacts with Infeld were, understandably, somewhat formal and cool. He said: "you may get your degree here, but afterwards you will go back to Politechnika". Infeld did not think much of the studies at the Technical University.

I made a big blunder at the beginning of my stay at Hoża. In my youth, I had a considerable interest in the philosophy (methodology) of science. In those days in Poland only Marxist philosophers were allowed to be active. One day, I helped to arrange a discussion seminar devoted to methodological aspects of physics, with a Marxist philosopher as the principal speaker. Never in my academic life, before or after, was I so strongly reprimanded as by Infeld when he had heard about that event. How could you — he said — invite to the Institute the people, who only a few years ago had fought a

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war against quantum mechanics and regarded the theory of relativity with suspicion? For a while I had the impression that my days at Hoża were numbered. To be fair, one should add that in 1956 — when those events were taking place — the Marxist philosophers here were not nearly as dogmatic as they had been in the 40s and early 50s. At the time of the thaw after Stalin's death, they were seeking contacts with physicists more to learn than to teach us what is right.

But there were much more important differences of opinion between Leopold Infeld and myself. Probably under Einstein's influence, with whom he collaborated in Princeton on equations of motion, Infeld thought that there was no gravitational radiation in nature. Plebański suggested that I should try to clarify this issue, as part of my Ph. D. thesis. With my background in electrical engineering from Politechnika, I quickly arrived at the conclusion that the analogies between gravitation and electromagnetism are sufficiently close to justify a belief in the existence of gravitational radiation. Most of my research in those days consisted in collecting arguments in favour of this view. Infeld did not like this at all. However, even though he did not approve of the conclusions, he recognized some value in my work and allowed it to be the basis of my dissertation. I consider this to be a striking proof of his high quality as a teacher and a scientist. Towards the end of his life, Infeld accepted the existence of gravitational radiation and, together with my wife Róża, computed the amount of radiation produced by a binary star.

Better than most people in Poland in those days, Infeld understood the universal and international nature of science; he attached a great importance to contacts and collaboration with scientists in other countries. A first step that he took in this direction, when travelling abroad was still almost impossible, was to hold our weekly colloquium in English so as to prepare young Polish physicists to deliver seminars and write papers in the main language of science. We still continue this tradition even though the need to do so now is not so obvious. As soon as it became possible, Infeld started inviting scientists from the West and helping his young collaborators to go abroad to attend conferences and on postdoctoral fellowships. Let me tell you how I benefited from Infeld's initiative in this matter. In 1957, Infeld invited Felix Pirani to Warsaw (Felix was his scientific grandson; Alfred Schild was the father); my contacts with him resulted in several visits to Hermann Bondi's group at King's College in London. It was then that I met Roger Penrose for the first time. During Abdus Salam's visit next year, Infeld arranged for me a postdoctoral stay at Imperial College. Those visits to London played a major role in my life and have completely determined my subsequent scientific activity.

Sometimes it is said that Infeld had an autocratic manner of running the Institute and would not listen to advice. I do not think this to be true. Let me tell you about something important that happened towards the end of his life. In communist Poland, all academic positions were filled by appointment from above, in most cases by the Ministry of Education and had to be approved by the party. In areas of little importance, such as pure science, deans and rectors were being asked for suggestions, but in no case any democratic process of election or vote was allowed. In 1967, when Infeld was approaching retirement, he arranged a semi-clandestine meeting of the faculty at our Institute to discuss candidates for the post of director. A free and frank discussion was followed by a secret ballot won by Józef Werle, who indeed, on Infeld's recommendation, was later appointed director of the Institute.

In spite of my penchant for Marxist philosophy, of which he did not approve, and of my views on gravitational waves that he did not share, Leopold Infeld extended to me very significant support and effective help. In particular, he secured my early promotions and, on his retirement, arranged for me to become head of his chair at the University. Above all, I remember Leopold Infeld with gratitude for having taught me the importance of high quality teaching and research, the role of seminars and of collaboration with younger colleagues.

I warmly thank you all for coming here.