

Truth and Clarity

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Mr. Chairman, Friends,

We have heard during this symposium much about Niels Bohr's contributions to science and to other areas of serious thought. Tonight we want to remember him as a human being, with all the charm and all the amusing traits of his personality.

The room in which we have gathered is very reminiscent of Carlsberg, the home in which many of us were so warmly received by Niels and Margrete Bohr. But I like to think of the earlier, more intimate home by the Institute, in which the smaller circle was more like a family.

There we had occasion to get to know his great kindness and reluctance to hurt anyone's feelings, which, coupled with his insistence not to let any inexact or wrong statement pass, led to the famous comment: "I am not saying this in order to criticise, but this is sheer nonsense!"

But while he was intolerant of nonsense, he was interested in simple problems and simple people. He could take a genuine interest in anyone's views and talk with them without condescension. I remember an occasion when he had a serious conversation with my son, then aged four, with obvious interest.

On his attitude to the truth, we have been reminded of his saying that truth and clarity were complementary. This came out strongly in his papers, in which he tended to give all possible weight to the truth. As a result his papers were usually not easy to read. It helped if one was able to see an early draft, in which often the clarity had not yet been sacrificed to the truth. Papers always went through innumerable drafts, followed sometimes by 12 sets of proofs, and in the course of this, many changes made the paper more true but not often clearer.

He seems to have had the same attitude to other matters, to judge by the story of his visit to the site of a new extension to the Institute, when the old foreman, who knew him well, said: "Professor Bohr, do you see that wall? If you want to move it again, you must be quick, because in three hours the concrete will have set!"

I experienced some of the problems of drafting in trying to write a paper jointly with Bohr and George Placzek. There were many drafts, but it never got published. It is probably the most frequently cited unpublished paper in the literature.

As we know, he thought deeply about problems outside of physics, and he used to defend the right of scientists to take part in political and other general debates. He said:

“We are no wiser and no less biased than other people. But as a physicist, or a biologist, you are certain to have gone through the experience of making a confident assertion, and then being proved wrong. A philosopher, or a sociologist might never have had this wholesome lesson.”

He had a fund of stories to illustrate his views. He was opposed to any form of nationalism, but he said that, if there had to be nationalism, he preferred the form in which it appeared, in the English-speaking countries, typified by the phrase: “Right or wrong, my country!” He did not agree with the sentiment, but he thought a German, or a French patriot would never admit that his country could be wrong.

Another illustration of the theme was the story of the young girl in Ecuador, who was cycling down a steep hill when her brakes failed. The cycle went faster and faster, and she almost lost heart. But then she said to herself: “I am an Ecuadorian,” and this thought gave her the strength to hold on and control the bicycle until the road flattened out. Bohr commented: “If instead of Ecuadorian you say American, or German, or British, the story is not funny.”

He had of course his share of absent-mindedness. In the early discussions he always had a cigar (later it became a pipe) which he tried to light while talking and not having it in his mouth. This took a lot of matches, and soon he would pat his pockets and say: “Have you got a match?” Someone would produce a box, which Bohr pocketed after using a match, and in a minute the process would repeat itself — “Have you got a match?”

I treasured for a long time as a souvenir a piece of chalk which was blackened at one end. Evidently Bohr had confused the chalk with the cigar, which he held in the same hand.

When he arrived in London during the War, after his famous flight from Stockholm, he was for a few days on his own—Aage Bohr followed later. When he had to go to meet an important person, the wise secretary of the Atomic Energy Office wrote the address and the instructions how to reach it on six pieces of paper, and said: “Professor Bohr, if you put one of these into each of your pockets, you are sure to find one when needed!”

Bohr could understand it when others were not very practical. Pauli told me about the day, after the discovery of hafnium, when the Institute had an open day and an exhibition to attract public interest. Before this started Bohr was running around putting finishing touches to the arrangements, when he saw Pauli standing rather forlorn in a corner. Bohr stopped, looked at Pauli and said: “Pauli, you are more suitable to be exhibited than to exhibit!”

Ladies and Gentlemen, I hope that my little stories may have helped you to recall the beloved personality of Niels Bohr.