

Now, as on prior occasions, I always owe a debt to your faculty for the assigned scope. This is an enormous help to a lecturer and also constitutes one of the inhibitions which were referred to this morning, but which certainly is a healthy one. It keeps him from wandering off into areas of his own interest and thus staying closer to the assigned task, which should accordingly fit into the College curriculum.

I have reviewed the scope of the five lectures on science which you have all seen. Since, as you will see in my development here, to be the most significant force in civilization and thus in creating national power, I am glad that you have these five lectures; but I also think it is impossible to cover the enormous scope of what is meant today, which the General referred to, as the growth of science. This implies not merely the growth of knowledge but the challenge to apply it, which is the special field of technology.

Now, with that start, conceived after hearing the lecture this morning, I want to be careful that my definition of science and engineering is understood by all of us. In the first place let me dispose of one large segment of what is often referred to as science, the social sciences, the behavioral sciences. In what I say to you this morning, they do not come, into my definition for real science. They are attempts to use scientific reasoning in areas of knowledge that are intangible or incommensurable, just as the subject matter you have heard early this morning. Why? I told the speaker this morning after his lecture that I had been invited to attend a distinguished seminar at Harvard which lasted for a week and which brought together Nobel Prize people from Europe and throughout the United States--distinguished professors, leaders, and then small fry like myself--into a very distinguished group. The subject of that conference, gentlemen, was what you had in the morning lecture: What are the factors that promote creativity?

The circumstances that led to that seminar are very appropriate to your studies. It was an attempt to examine whether America and its environment inspire creativity as compared with the Old World, where historically so many of our new ideas, have come from. I am not competent to say specifically where most come from. But as an example in the whole field of nuclear science only one American name stands out all the way from Dr. Hertz of 1890 to Dr. Roentgen of 1895, Dr. Belguemel, Mme. Curie, J. J. Thompson, then Max Planck of 1900, Lord Rutherford and Nils Bohr in 1912. The group who really formulated quantum and wave mechanics,