Emile Zola described a work of art as a corner of nature seen through a temperament. The philosopher Karl Popper, the economist F. A. Hayek, and the art historian K. H. Gombrich have shown that the creative process in science and art consists of two main activities: an imaginative jumping forward to a new abstraction or simplified representation, followed by a critical looking back to see how nature appears in the light of the new vision. The imaginative leap forward is a hazardous, unreasonable activity. Reason can be used only when looking critically back. Moreover, in the experimental sciences, the scientific fraternity must test a new theory to destruction, if possible. Meanwhile, the originator of a theory may have a very lonely time, especially if his colleagues find his views of nature unfamiliar, and difficult to appreciate.

The final outcome cannot be known, either to the originator of a new theory, or to his colleagues and critics, who are bent on falsifying it. Thus, the scientific innovator may feel all the more lonely and uncertain.

On the other hand, faced with a new theory, the members of the scientific establishment are often more vulnerable than the lonely innovator. For, if the innovator should happen to be right, the ensuing upheaval of the established order may be very painful and uncongenial to those who have long committed themselves to develop and serve it. Such, I believe, has been the case in the field of knowledge with which my work has been involved.

Naturally, I have been deeply moved, and not a little astonished, by the accidents of fortune that have brought me to this point; and I have counted myself lucky that I have been greatly encouraged by the love and example of the late David Keilin, and that my research associate, Dr. Moyle, has skilfully helped to mitigate my intellectual loneliness at the most difficult times. Now, I am indeed a witness of the benevolent spirit of Alfred Nobel.

Last, but not least, I would like to pay a most heartfelt tribute to my helpers and colleagues generally, and especially to those who were formerly my strongest critics, without whose altruistic and generous impulses, I feel sure that I would not be at this banquet today.