

BOOK REVIEW

**Founders of modern science**

Aris, R., Davis, H. T., Stuewer, R. H. (eds) 1983. Springs of scientific creativity. Essays on founders of modern science. - University of Minnesota Press, Minneapolis. pp. I - VIII + 1 - 342. ISBN 0-8166-1087-8.

The sober opinion about contemporary science says that "more and more [...] the emphasis is on management, publication, tenure, and scrambling for funds to support research for which the answer is already known" (Garfield 1989). At the same time, however, the growing interest in the scientific creativity is expressed by hundred of research studies conducted and numerous papers published by psychologists and historians of science.

This book has examined the biographies of well-known creative individuals. It contains 12 essays (written by 12 authors) on: Galileo, I. Newton, J. P. Joule, J. C. Maxwell, J. W. Gipps, Lord Rayleigh (J. W. Strutt), E. Sperry, W. Nernst, A. Einstein, E. Schrodinger, M. Polanyi, and J. von Neumann. The essays presented mainly the historical, social, family, and psychological background that enhanced the development and maturation of particular ideas and discoveries. The book somewhat suffers from wordiness, which might have resulted from its first being a series of spoken lectures. Each descriptive portrait is supplemented with rich illustrations (drawings and photographs).

The subjects covered are physics, chemistry, engineering, and computer sciences, but the presented *curricula mentis* seem to reveal some general characteristics of scientific creativity: the person's ability and courage to break out of well established thinking patterns. The scientists and science apprentices can learn from this book that the way to make scientific discoveries is (according to Isaac Newton) "by always thinking unto them". It is a wise advice to modern scientists that, much too often, are involved in what Eugene Garfield (ISI) called "pressure-cooker, cookie-cutter research programs".

Garfield, E. 1989. Creativity and science. Part 1. What makes a person creative? Current Contents (43): 3 - 7, 23 October 1989.

Bogumiła JĘDRZEJEWSKA, Workshop for Ecology and Protection of the Natural Environment, Tropinka 102, 17-230 Białowieża, Poland.