

Excerpts from: The Republic of Science: Its Political and Economic Theory
Michael Polanyi, Minerva 1:54-74, 1962.

Available online at

http://sciencepolicy.colorado.edu/students/envs_5100/polanyi_1967.pdf

p. 3 The capacity to renew itself by evoking and assimilating opposition to itself appears to be logically inherent in the sources of the authority wielded by scientific orthodoxy.

p. 3 The professional standards of science must impose a framework of discipline and at the same time encourage rebellion against it.

p. 4 [...] the uniformity of scientific standards throughout science makes possible the comparison between the value of discoveries in fields as different as astronomy and medicine.

p. 4 Moreover, only a strong and united scientific opinion imposing the intrinsic value of scientific progress on society at large can elicit the support of scientific inquiry by the general public. Only by securing popular respect for its own authority can scientific opinion safeguard the complete independence of mature scientists and the unhindered publicity of their results, which jointly assure the spontaneous co-ordination of scientific efforts throughout the world. These are the principles of organization under which the unprecedented advancement of science has been achieved in the twentieth century. Though it is easy to find flaws in their operation, they yet remain the only principles by which this vast domain of collective creativity can be effectively promoted and co-ordinated.

p. 5 Any attempt at guiding scientific research towards a purpose other than its own is an attempt to deflect it from the advancement of science.[...] You can kill or mutilate the advance of science, you cannot shape it.

p. 8 the methods of scientific inquiry cannot be explicitly formulated and hence can be transmitted only in the same ways as an art, by the affiliation of apprentices to a master. The authority of science is essentially traditional.

p. 10 The Republic of Science shows us an association of independent initiatives, combined towards an indeterminate achievement. It is disciplined and motivated by serving a traditional authority, but this authority is dynamic; its continued existence depends on its constant self-renewal through the originality of its followers.[...] In this view of a free society, both its liberties and its servitudes are determined by its striving for self-improvement, which in its turn is determined by the intimations of truths yet to be revealed, calling on men to reveal them.