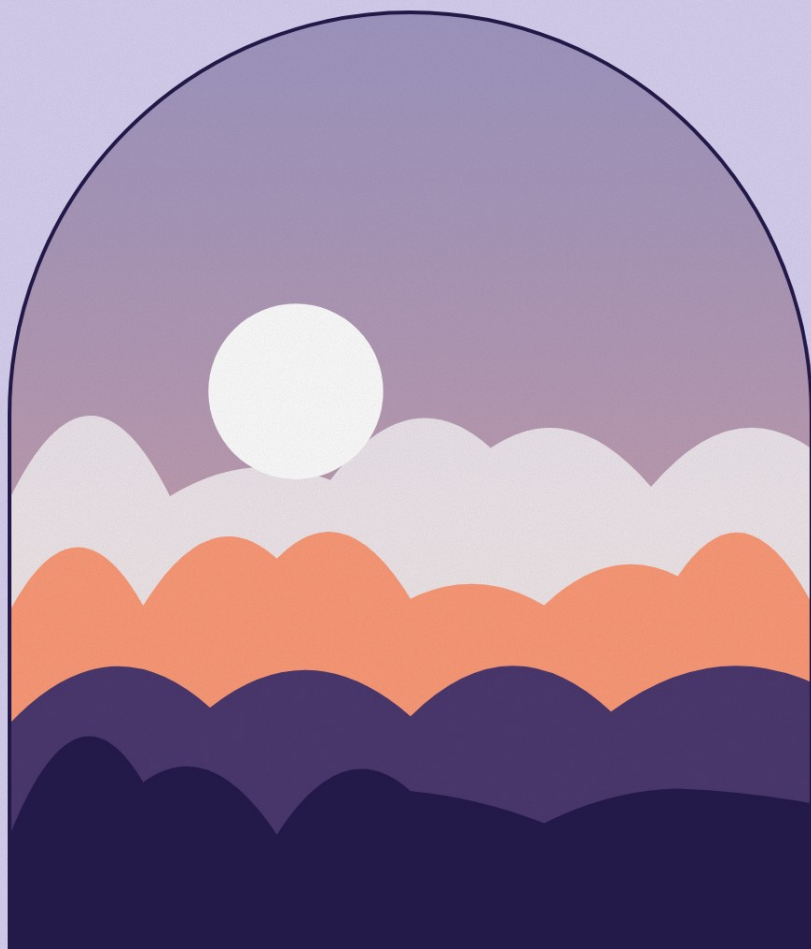




Essays on Education

HERBERT SPENCER

JVA EDITORA

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JVA Editora

EVERYMAN, *I will go with thee,
and be thy guide,
In thy most need to go by thy side*

HERBERT SPENCER

Born at Derby in 1820, the son of a teacher, from whom he received most of his education. Obtained employment on the London and Birmingham Railway. After the strike of 1846 he devoted himself to journalism, and in 1848 was sub-editor of *The Economist*.

He died in 1903.

HERBERT SPENCER

Essays on Education

AND KINDRED SUBJECTS

INTRODUCTION BY

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INTRODUCTION

The four essays on education which Herbert Spencer published in a single volume in 1861 were all written and separately published between 1854 and 1859. Their tone was aggressive and their proposals revolutionary; although all the doctrines—with one important exception—had already been vigorously preached by earlier writers on education, as Spencer himself was at pains to point out. The doctrine which was comparatively new ran through all four essays; but was most amply stated in the essay first published in 1859 under the title "What Knowledge is of Most Worth?" In this essay Spencer divided the leading kinds of human activity into those which minister to self-preservation, those which secure the necessities of life, those whose end is the care of offspring, those which make good citizens, and those which prepare adults to enjoy nature, literature, and the fine arts; and he then maintained that in each of these several classes, knowledge of science was worth more than any other knowledge. He argued that everywhere throughout creation faculties are developed through the performance of the appropriate functions; so that it would be contrary to the whole harmony of nature "if one kind of culture were needed for the gaining of information, and another kind were needed as a mental gymnastic." He then maintained that the sciences are superior in all respects to languages as educational material; they train the memory better, and a superior kind of memory; they cultivate the judgment, and they impart an admirable moral and religious discipline. He concluded that "for discipline, as well as for guidance, science is of chiefest value. In all its effects,

learning the meaning of things is better than learning the meaning of words." He answered the question "what knowledge is of most worth?" with the one word—science.

This doctrine was extremely repulsive to the established profession of education in England, where Latin, Greek, and mathematics had been the staples of education for many generations, and were believed to afford the only suitable preparation for the learned professions, public life, and cultivated society. In proclaiming this doctrine with ample illustration, ingenious argument, and forcible reiteration, Spencer was a true educational pioneer, although some of his scientific contemporaries were really preaching similar doctrines, each in his own field.

The profession of teaching has long been characterised by certain habitual convictions, which Spencer undertook to shake rudely, and even to deride. The first of these convictions is that all education, physical, intellectual, and moral, must be authoritative, and need take no account of the natural wishes, tendencies, and motives of the ignorant and undeveloped child. The second dominating conviction is that to teach means to tell, or show, children what they ought to see, believe, and utter. Expositions by the teacher and books are therefore the true means of education. The third and supreme conviction is that the method of education which produced the teacher himself and the contemporary or earlier scholars, authors, and publicists, must be the righteous and sufficient method. Its fruits demonstrate its soundness, and make it sacred. Herbert Spencer, in the essays included in the present volume, assaulted all three of these firm convictions. Accordingly, the ideas on education which he put forth more than fifty years ago have penetrated educational practice very slowly—particularly in

England; but they are now coming to prevail in most civilised countries, and they will prevail more and more. Through him, the thoughts on education of Comenius, Montaigne, Locke, Milton, Rousseau, Pestalozzi, and other noted writers on this neglected subject are at last winning their way into practice, with the modifications or adaptations which the immense gains of the human race in knowledge and power since the nineteenth century opened have shown to be wise.

For teachers and educational administrators it is interesting to observe the steps by which Spencer's doctrines—and especially his doctrine of the supreme value of science—have advanced towards acceptance in practice. In general, the advance has been brought about through the indirect effects of the enormous industrial, social, and political changes of the last fifty years. The first practical step was the introduction of laboratory teaching of one or more of the sciences into the secondary schools and colleges. Chemistry and physics were the commonest subjects selected. These two subjects had been taught from books even earlier; but memorising science out of books is far less useful as training than memorising grammars and vocabularies. The characteristic discipline of science can be imparted only through the laboratory method. The schoolmasters and college faculties who took this step by no means admitted Spencer's contention that science should be the universal staple at all stages of child development. On the contrary, they believed, as most people do to-day, that the mind of the young child cannot grasp the processes and generalisations of science, and that science is no more universally fitted to develop mental power than the classics or mathematics. Indeed, experience during the past fifty years seems to have proved that fewer minds are naturally inclined to scientific study than to linguistic or historical study; so

that if some science is to be learnt by everybody, the amount of such study should be limited to acquiring in one or two sciences knowledge of the scientific method in general. So much scientific training is indeed universally desirable; because good training of the senses to observe accurately is universally desirable, and the collecting, comparing, and grouping of many facts teach orderliness in thinking, and lead up to something which Spencer valued highly in education—"a rational explanation of phenomena."

Science having obtained a foothold in secondary schools and colleges, an adequate development of science-teaching resulted from the introduction of options or elections for the pupils among numerous different courses, in place of a curriculum prescribed for all. The elaborate teaching of many sciences was thus introduced. The pupil or student saw and recorded for himself; used books only as helps and guides in seeing, recording, and generalising; proceeded from the known to the unknown; and in short, made numerous applications of the doctrines which pervade all Spencer's writings on education. In the United States these methods were introduced earlier and have been carried farther than in England; but within the last few years the changes made in education have been more extensive and rapid in England than in any other country;—witness the announcements of the new high schools and the re-organised grammar schools, of such colleges as South Kensington, Armstrong, King's, the University College (London), and Goldsmiths', and of the new municipal universities such as Victoria, Bristol, Sheffield, Birmingham, Liverpool, and Leeds. The new technical schools also illustrate the advent of instruction in applied science as an important element in advanced education. Such institutions as the Seafeld Park Engineering College, the City Guilds of London Institute, the City of London College, and the

Battersea Polytechnic are instances of the same development. Some endowed institutions for girls illustrate the same tendencies, as, for example, the Bedford College for Women and the Royal Holloway College. All these institutions teach sciences in considerable variety, and in the way that Spencer advocated,—not so much because they have distinctly accepted his views, as because modern industrial and social conditions compel the preparation in science of young people destined for various occupations and services indispensable to modern society. The method of the preparation is essentially that which he advocated.

Spencer's propositions to the effect that the study of science was desirable for artisans, artists, and, in general, for people who were to get their livings through various skills of hand and eye, were received with great incredulity, not to say derision—particularly when he maintained that some knowledge of the theory which underlies an art was desirable for manual practitioners of the art; but the changes of the last fifty years in the practice of the arts and trades may be said to have demonstrated that his views were thoroughly sound. The applications of science in the arts and trades have been so numerous and productive, that widespread training in science has become indispensable to any nation which means to excel in the manufacturing industries, whether of large scale or small scale. The extraordinary popularity of evening schools and correspondence schools in the United States rests on the need which young people employed in the various industries of the country feel of obtaining more theoretical knowledge about the physical or chemical processes through which they are earning a livelihood. The Young Men's Christian Associations in the American cities have become great centres of evening instruction for just such young persons. The correspondence schools are teaching

hundreds of thousands of young people at work in machine-shops, mills, mines, and factories, who believe that they can advance themselves in their several occupations by supplementing their elementary education with correspondence courses, taken while they are at work earning a livelihood in industries that rest ultimately on applications of science.

Spencer's objection to the constant exercise of authority and compulsion in schools, families, and the State is felt to-day much more widely than it was in 1858, when he wrote his essay on moral education. His proposal that children should be allowed to suffer the natural consequences of their foolish or wrong acts does not seem to the present generation—any more than it did to him—to be applicable to very young children, who need protection from the undue severity of many natural penalties; but the soundness of his general doctrine that it is the true function of parents and teachers to see that children habitually experience the normal consequences of their conduct, without putting artificial consequences in place of them, now commands the assent of most persons whose minds have been freed from the theological dogmas of original sin and total depravity. Spencer did not expect the immediate adoption of this principle; because society as a whole was not yet humane enough. He admitted that the uncontrollable child of ill-controlled adults might sometimes have to be scolded or beaten, and that these barbarous methods might be "perhaps the best preparation such children can have for the barbarous society in which they are presently to play a part." He hoped, however, that the civilised members of society would by and by spontaneously use milder measures; and this hope has been realised in good degree, with the result that happiness in childhood is much commoner and more constant than it used to be. Parents and teachers are beginning to