

CHAPTER – 7

Herbert Spencer : The Scientific Movement in Education

Herbert Spencer came of a family of teachers. His father was a man of independent way of thinking, who believed in 'self-education'. So, he did not want to send his son to formal school and preferred to give him a good home education so that the boy could learn well different subjects quite early in life from his father and uncle. Although Spencer did never go to university for higher education, he was brought up in a cultured family with good literary and intellectual traditions. Though Spencer joined the teaching profession, he did not find himself successful in the profession. He joined some other professions. Ultimately he decided to turn his abilities in the direction of a literary career. In this course he began regularly publishing papers and articles on various subjects including psychology and education. In 1855 Spencer brought out the treatise *The principles of Psychology*. And in 1861 he published his monumental work, *Education : Intellectual, Moral and Physical*, from Watts & Co., London. The leading idea here was in conformity with his own evolutionary – naturalist philosophy which was an expression of the mentality of the age that put its fourth primarily in science of bent itself whole heartedly to scientific advance. In this book, the author advocates a complete the field of education consists of four magazine articles later published in his *Education*.

The question as to 'What Knowledge Is Of Most Worth?' which is raised in the first of the essays, is only understood when expanded into the form : 'what knowledge is of worth for the individual? Since Spencer had acquired an 'aggressive nonconformist mind' it was his conviction that there should be no state interference with the life of the individual or with education which, in his opinion, is 'essentially

a matter of individual concern'. In this, he was in good company with Locke and shared the worries of later day thinkers like Durkheim. He held that any effort on the part of the state to control and direct education would be harmful. He was also of opinion that individual and social interests are antagonistic to each other, and there can be no harmony between them. He naturally prefers and attaches greater importance to individual interests. Hence he places the sciences that minister to individual health and individual wellbeing 'at the top of the scale of worthy knowledge', and he correspondingly puts literature and the arts relating to social factors 'at the bottom of the scale'.

In this essay Spencer has elaborately discussed the purpose and function of education. He laid great emphasis on the study of various sciences, specially, physiology, psychology, hygiene, biology, sociology, politics, and the like. Spencer maintains that an exclusive study of the classics and classical languages is of no use, since it cannot prepare us for life. The sciences, according to him, should be included in the curriculum. His view in this regard, was challenged by the members of the conservative school of educators. During the greater part of the century a contest was waged between the advocates to of classical monopoly and the progressives who urged that the sciences should be introduced.

The function of education, according to Spencer, is to prepare us for complete living, and the rational mode of judging of an educational course is to judge in what degree it discharges such function. This complete living consists of (i) direct and indirect self-preservation, (ii) earning livelihood (food, clothing, shelter etc.) (iii) rearing of off-spring, (iv) worthy and intelligent citizenship, (v) proper utilization of leisure, and so on. Spencer asserted that for each of these items of living, a knowledge of science is greatly helpful. So, according to Spencer, our first step must

obviously be to classify in the order of their importance, the leading kinds of activity which constitute human life. They may be naturally arranged into: (1) those activities which directly minister to self-preservation; (2) those activities which, by securing the necessaries of life, indirectly minister to self-preservation; (3) those activities which have for their end the rearing and discipline of off-springs; (4) those activities which are involved in the maintenance of proper social and political relations; (5) those miscellaneous activities which fill up the leisure part of life, devoted to the gratification of the tastes and feelings.

In Spencer's opinion, the ideal of education is the complete preparation of all those division of activities of human life. For complete living we must know in what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring family; in what way to behave as a citizen; in what way to utilize those sources of happiness which nature supplies and finally how to use all our faculties to the greatest advantage of ourselves and others. According to Spencer the function of education is to impart the knowledge of those sciences which throw light on the above mentioned subjects or activities of human life.

Spencer's divisions of man's function of life can be explained in the following manner:

- (1) As regards 'direct self-preservation' Spencer observes that Nature takes care of all the things that are considered necessary for our self-preservation, provided, of course, we do not put any obstruction in the way of our spontaneous activities. 'Indirect self-preservation', according to Spencer, is greatly assisted by a knowledge of hygiene and physiology.

- (2) As to 'earning livelihood', Spencer hold that the sciences like Mathematics, Physics, Chemistry, Geology, Biology, Astronomy, etc. are of vital importance to all kinds of practical arts and business of life. As rational knowledge has an immense superiority over empirical knowledge, Spencer maintains that there are hardly any activities in our life, that do not require the help of some kind of science.
- (3) Spencer strongly advocates the importance of instruction and training in the proper way of rearing off-springs and includes such knowledge in the curriculum. Parents are generally found to be ignorant of this science. According to Spencer, this knowledge should be acquired by parents as also by those persons who have parental responsibility. The best way in which we can teach the young is to bring them up in such a manner that when they themselves have to rear children, the memory of their own youth may serve as a guide to them.
- (4) About 'training in citizenship', Spencer considers the knowledge of history as highly valuable and useful. But, according to him, traditional methods and representations of history is of no use. Book on history of contemporary times are not written properly and scientifically. They throw no light upon the development of societies and instructions. To Spencer, science serves as a key also to history, and hence without scientific knowledge history cannot be properly used. He believes that a man is best fitted for citizenship through a knowledge of the science of history in its political, economic and social aspects. The reading of history, like traveling, broadens the mind of the pupil, by bringing home to him the truth that there are also people beyond the mountain, that there

are higher interests in the world than his own business concerns, and nobler men than himself or the best of his acquaintance. Besides history, a knowledge of politics and sociology is specially suitable for this purpose. In Spencer's view, a knowledge of the evolution of society is more useful than that of the kings, queens, rulers or warriors.

- (5) The last division includes the relaxation and amusements filling leisure hours. Spencer was fully alive to the value and importance of leisure hours occupations and he also realized the necessity of education for the utilization of leisure hours. For this purpose, he placed immense value to music, painting, drawing, sculpture, architecture, literature, poetry, etc. He thinks that even the aesthetic of leisure side of life depends upon physics, mechanics, and psychology as a basis for art, music and poetry.

Thus Spencer asserted that for purposes of discipline as well as for guidance, 'science' is of the chiefest value. So, the uniform answer to the question raised in the title of the first essay 'what knowledge is of most' is Science.

After establishing the necessities of teaching science Spencer raised a question, namely, should we teach all sciences to everybody and answered negatively in this regard. Because to him this is not possible. Only a love of knowledge and a scientific attitude and outlook are to be fostered in children so the their minds may be 'well disciplined to acquire knowledge'.

Spencer has laid down some very important principles of education, most of which have come down to us in the form of maxims of education and are widely accepted in the practice of education. They are as follows

1. Start from the concrete thing and go on to the abstract ideas, 2. Proceed from observation to reasoning, and thence to memory, 3. Teach inductively (from examples to laws, individuals to classes, particulars to generals, practical to theoretical, simple to complex and indefinite to definite), 4. Make all lessons attractive, useful, interesting, and pleasurable, 5. Encourage self-teaching, 6. Tell the pupil as little as possible and lead him to tell you as much as possible, from his own observation and deduction, 7. Teach through the senses, 8. Let the pupil learn by doing, 9. Start from what the pupil knows and go on to what he does not know, 10. Follow nature and train every faculty.

These principles are sometimes called ten golden rules of teaching. The sum and substance of all these principles is that education is an individual process, which begins with the concrete experiences of the pupil and calls for learning by personal discovery and approves itself satisfactory by creating pleasurable experiment.

Regarding 'intellectual education', pointed out that there is a close relationship between the current systems of education and the corresponding social states with which they have co-existed. So, the scope and character of education are greatly affected by the prevailing political conditions. Along with political despotism, stern in its commands, ruling by force of terror, visiting trifling crimes with death, and implacable in its vengeance of the disloyal, there necessarily grew up an academic discipline similarly harsh. On the other hand, the increase of political liberty, the abolition laws restricting individual action, and the amelioration of the criminal code have been accompanied by a kindred progress towards non-coercive education; the pupil is hampered by fewer restraints, and other means than punishments are used to govern him.

To express his views on moral education, Spencer takes the stand of a naturalist; and in this respect there is agreement of his views with those of Rousseau, although it is believed that Spencer never read Rousseau or *The Emile*. Spencer's view is that naturalist illustrates to us the true theory and practice of moral discipline. According to him, there should be no imposition of 'artificial punishment by an arbitrary infliction of pain' ; the wrong actions of the child will bring his own punishment. Spencer maintained that punishment should come to child as a natural consequence of his own acts, and make him disciplined. Here he made no distinction between physical and moral laws, and he upholds his belief in hedonistic ethics. As per his utilitarian view he remarked that conduct whose total results, immediate and remote, are beneficial, is good conduct; while conduct whose total results, immediate and remote, are injurious, is bad conduct. So the ultimate standards by which all men judge of behaviour are the resulting happiness or misery. The unpleasant experience or painful consequences for the individual from a conduct are sufficient proof of its badness or undesirability and also an adequate reason for its avoidance later on.

Regarding physical education also, Spencer's views coincide with those of Rousseau. The physical education of children, according to him, is, in various ways, seriously faulty. It errs in deficient feeding; in deficient clothing; in deficient exercise (among girls at least); and in excessive mental application. According to Spencer, proper place and importance should be given to physical education and it should be conducted on scientific principles.

Spencer believed in the Culture Epoch theory. It is a particular application of the theory of Recapitulation or Reminiscence, which has for its basis a parallelism between racial and individual development. The theory implies that knowledge grows and develops in the child through the same stages as it has passed through, in

the race, Spencer asserts that the child is to be made to traverse or pass through all the stages through which the human race has passed, in the process of its evolution. The theory also signifies that both the selection and arrangement of 'subject matter' and 'method of instruction' must be determined by the historical stages of human culture.

A mention must be needed to the superfluous or surplus energy theory of play advocated by Spencer. This old theory of play was first put forward by F. Schiller and was later accepted and developed by Spencer. Hence it is known as Schiller-Spencer theory. According to this theory, play is the expression of the surplus energy in the organism. During childhood the organism being fed, well-nourished and defended by parents or elderly persons, is not required to spend any energy either for procuring the necessaries of life or for self-defence. Hence it possesses more energy than is actually needed for its growth and self-maintenance. This pent-up energy, therefore, finds outlet in play.

So, Spencer wished to solve the problems of education, culture, civilization and life only through science. He did so as he belonged to an age of industrial revolution and intellectual renaissance and was greatly influenced by the scientific discoveries and inventions of his time, especially, of those concerning evolution, and 'he did his own thinking'. He came of a 'stock of individualists who were prepared to discuss and question all social customs and conventions and to accept and to accept nothing for granted, that violated the dictates of reason'. As a result, Spencer held beliefs and views which often went against those of 'the classical idealists, the supernaturalists, the literary humanists, the primitive naturalists and the class-conscious restrictionists'. In the selection of studies, utilitarianism and individualism

weighed more with him than life-less conventionalism, and for this he is often and unduly criticized.

Some critics have remarked that Spencer was a more 'convinced individualist' than the utilitarians. He is also called 'a natural rebel, independent, self-confident, and vigorously assertive' and his intellectual independence made him ignore the view-points of the thinkers except in so far as they were in agreement with his. Whenever he had tried to go through any of those writings he had put them down in a state of impatience with the indefiniteness of the thinking and mistaking of words for things. In other occasions when he took up those writings, he contemplated them as works of art, and put them aside in greater exasperation than before.

Actually Spencer was a prophet with a message. Parts of that message has been accepted and acted upon. Other parts still receive only lip-service. So far as his educational thoughts are concerned, the teaching of science still fails to foster the spirit of scientific inquiry, the spirit in which ethical, moral, and social problems should be studied is still neglected; history is still taught without the scholars being enabled to see how the society of nations has grown and organized itself; religious instruction still instills belief in myths and supernaturalism, and bases the incentive to worship on credulity instead of on a commendable approbation of things that are worthy of honour. There is still little understanding of the fact that science underlies the production and appreciation of sculpture, painting, music and literature, and that science itself is poetic; and parents have still to receive the king of no schooling that would provide them with the psychological knowledge required for the proper upbringing of their children. The reason may be that his proposals were part of a unique historical situation and changes set in Spencer's own life time. There was a shift from the biological and sociological to the mathematico-physical sciences. This

may account for the 'datedness' of his educational theories. Yet his scientific treatment of educational methods and the ideal of a Complete Man in an era of specialization need serious attention.