THE EDUCATIONAL IDEAS OF HERBERT SPENCER.
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PREFATORY NOTE.

Despite the great, though, in the writer's opinion, scarcely merited, popularity of the Essays on Education, there does not exist any systematic and complete presentation of Spencer's educational views. The present work aims at bringing together the various expressions of his educational creed and seeks to find the key to them in Spencer's social and ethical philosophy. The book is not primarily historical; but an attempt has been made to sketch the historical background and to show the ancestry of Spencer's general point of view. Chapters VIII, IX and X are meant to sustain the writer's interpretation of "Education: Intellectual, Moral, and Physical", and to explain Spencer's attitude to the wider problems of education, and especially his hostility towards State enterprise in the provision of education.
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CHAPTER I.

THE EDUCATIONAL BACKGROUND OF SPENCER'S TIME.

General Survey.

The history of education in the nineteenth century is the story of the slow and reluctant steps by which the State made itself responsible for the schooling of the children of the working classes. It has been remarked that voluntary social work is often the laboratory of State enterprise; and the generalisation is true so far as English education is concerned. The State began by subsidising voluntary societies and passed only by very slow steps to the direct provision of educational facilities. In Scotland, by the Act of 1872, education was taken over by the State from the Church, which to some extent before, and to a very great extent after, the Reformation had made itself responsible for the secular as well as the religious education of the whole people of the nation. In England, on the other hand, the Church, while it took over nominal control of education at the Reformation, tended, at least after the Restoration of 1660, to restrict its efforts to education in the knowledge and practices of the Christian Church, and to the licensing
of teachers for the grammar schools. The secular education of the children of the poorer classes was left largely to voluntary charity organisations; or else it formed part of a State system of poor relief. The national system of education which was embodied in the Act of 1870 was, therefore, a development partly of voluntary enterprise and partly of a State system of poor relief; and it continues to show traces of its twofold origin. The educational revolution represented by that Act lagged far behind the industrial revolution of which it was nonetheless a necessary sequel. The causes of this reluctance to nationalise education have their roots far back in English social history.

The Educational Legacy of the Preceding Centuries.

Education in England had always been nominally open to rich and poor alike; but the Grammar Schools had in course of time come to be regarded as institutions for the education of the better-to-do. When attempts began to be made towards the end of the seventeenth century to provide schooling for the poor, they were made in the guise of charity, and aimed at giving the children of the poor a training befitting their station in life, which meant a training in industry and obedience. By the Canons of 1604, the control of the educational system as it then existed was placed in the hands of the Church. The Church therefore through the agency of the grammar schools controlled the education of the better classes.
That of the poorer classes was left to voluntary societies, working usually under Church auspices. Finally there were the children of the destitute poor, for whom the State made some little provision in various schemes of poor relief. We may thus conveniently consider in turn the part played by each of these three agencies: Church, Voluntary Society and State.

(a) The action of the Church was, as we have said, indirect. But the fact that the Reformation in England resulted in an Established Church representative of the nation as a whole enabled the State to hand over to it the control of the existing forms of education. No schoolmaster was permitted to teach in public or in private unless he had been approved as regards qualification and doctrine by the Church. It was not indeed until 1779 that Parliament granted freedom of teaching to Nonconformists, and not until 1791 that this freedom was extended to Roman Catholics. Here then we have a part explanation of why the State was so slow in nationalising education: it could afford to leave it to the care of the Church which had for so long been associated with the provision of education, and which, moreover, was itself a State institution.

(b) The voluntary society as provider of education appeared early. The Society for the Promotion of Christian Knowledge was founded in 1698; and in forty years it had opened 2000 schools throughout England and Wales, with provision for some 40,000 pupils. These schools
had as their aim to rescue poor children from ignorance and vice, to bring them to knowledge of the Christian religion, and to train them in habits of industry and obedience. The class distinction between their pupils and those of the Grammar Schools or the Dissenting Academies (which came into existence in the course of the seventeenth century) was from the outset quite marked. During the next century the agrarian and industrial revolutions had the effect of accentuating class distinctions; and the idea of providing education as an act of charity became characteristic not only of the Church of England but also of the Dissenters. It showed itself at the beginning of the nineteenth century in the two rival societies, "The British and Foreign School Society", directed by the Quaker, Lancaster; and "The National Society for Promoting the Education of the Poor in the Principles of the Established Church", directed by Dr. Bell. The origin of this idea of providing education as an act of charity is, however, to be traced even further back than the date of the founding of the S.P.C.K. at the end of the seventeenth century.

A State system of poor relief, which had become necessary as a substitute for ecclesiastical almsgiving, had been introduced into England by Queen Elizabeth. At the restoration of 1660, the management of the Poor Law had been vested in the landowning class; and the system had been extended and enlarged by the introduction of a scheme of out-relief in the reign of George III. It had re-
sulted in a division of the populace into two classes, the propertied class of landowners and merchants, and the labouring class of workers and peasants. Agriculture was gradually becoming capitalized, commons were being enclosed, and instead of peasants supporting themselves in semi-independence as agriculturists on their own account, they were tending to become merely the employes of wealthy landowners. Their standard of living was declining, and there was an increasing degree of ignorance and illiteracy. It was this gradual change in social conditions which made necessary the provision of charity schools, and led the State to direct intervention in education so far at least as the children of those coming under the Poor Law were concerned.

Nonconformity also tended to accentuate this division of classes, with the accompanying idea of education as a charity due by the one class to the other. Moreover, individualism was exalted by the Nonconformists as a virtue. Because of this, and because of their hostility to the Established Church, the Nonconformists were opposed to State intervention in education no less than in religion. The Puritans placed self-reliance and hard work among their chief virtues. They were ready to condemn poverty as a vice resulting from weakness of character; and the poor were therefore regarded as a class who had by their defects of character brought about their own misfortune. If education were to be made open to them, it was as an act of charity on the part of the better-to-do; and it was to be regarded as a means of reformation
and rescue. This education might not differ much from that provided in a decayed grammar school as regards the subjects taught, but it differed fundamentally in aim, which was disciplinary; 'to rescue the masses and to ensure their obedience.'

(c) The part played by the State in education up to the nineteenth century was confined to authorising the provision of instruction for children of the destitute poor. The Poor Relief Act of 1601 (43 Elizabeth) authorised the Churchwardens or Parish Overseers to set to work the children of destitute parents and 'the putting out of such children to be apprentices.' Industrial training began to be given in workhouses established in London (1655), Norwich and Bristol (1697), and was recommended for poor children by Locke in 1697. An act of 1723, which enabled parishes to form Unions for the establishment of workhouses, contained provisions for education or industrial training. Beyond this extension of Poor Relief legislation, the State did not venture to interfere in education.

Beginning, therefore, in the schools of the S.P.C.K. (1698), and continued in similar schools provided by Dissenters, popular education continued to be a form of charity (or an offshoot of the Poor Law) right up to the beginning of the nineteenth century.

English Nonconformist Thought on Education in the Eighteenth Century: the Tradition which Spencer inherited.

There were two eighteenth century thinkers, both originally Nonconformists, who did much to determine English
educational ideas and practice in the first half of the nineteenth century. These two were Joseph Priestley (1733-1804) and William Godwin (1756-1836). Both were spiritual ancestors of Herbert Spencer.

In 1768 Priestley published "An Essay on the First Principles of Government", in Section IV of which, entitled "In what manner an authoritative code of education would affect political and civil liberty", he considers the question of the proper relation of the State to education. Dr. John Brown, an Anglican, had written in favour of a comprehensive national system of education in conformity with the doctrines of the Established Church. Priestley's discussion is a reply to this. Postulating that "the great object of civil society is the happiness of the members of it, in the perfect and undisturbed enjoyment of the more important of our natural rights," he goes on to show that a State-"established mode of education would be prejudicial to the great ends of civil society." His first argument is that State education would be harmful to the advancement of the art of education itself. Like the other arts of husbandry, architecture and shipbuilding, education must have opportunities for free experiment if it is to progress. To establish it as a State institution would be to perpetuate its many imperfections; it would be like "fixing the dress of a child, and forbidding its cloaths ever to be made wider or larger";

Brown, "Thoughts on Civil Liberty, Licentiousness, and Faction"; "Appendix relative to a proposed code of education" in "Sermon on the female character and education."
"it would prevent all great improvements in futurity."
Secondly, State education would make for uniformity in
its products, whereas "the great excellence of human nature
consists in the variety of which it is capable." In the
third place, to compel children to attend public schools
would be to infringe one of the strongest of man's natural
rights, namely, his right to determine his children's educa-
tion for himself. "Nature seems to have established such
a strong connection between a parent and his children, at
least during the first period of their lives, that to drag
them from the asylum of their natural guardians, to force
them to public places of education, and to instil into
them religious sentiments contrary to the judgment of their
parents, would be as cruel, as obliging a man to make the
greatest personal sacrifice, even that of his conscience,
to the civil magistrate." Finally, State establishment of
education would destroy the balance on which the English
constitution rests, a balance between "regal, aristocratic-
tical, and democratic power," and between different re-
ligious sects and parties. If the Commons chose "the pub-
lic instructors," "we should see a republic rise out of the
ruins of our present government"; if the Lords, an aris-
tocracy; if the Court, a despotism. "And when once the
spirit of despotism was thus established, and had triumph-
ed over all opposition, we might soon expect to see the
forms of it too, and thereby the very doors shut against
old English liberty, and effectually guarded against the
possibility of its return, except by violence; which would
then be the only method of its re-entrance." In fine,
"the only method of preserving the balance, which at present subsists among the several political and religious parties in Great Britain, is for each to provide for the education of their own children."

After expounding the arguments against State education in a way which Spencer in his chapter on National Education in "Social Statics" repeats and amplifies, Priestley concludes that education is a branch of civil liberty which ought not to be handed over to the State but "should be inviolably preserved to individuals."

Though he subsequently modified his views to the extent of allowing that the State might "appoint schools in every district, or direct in what manner the teachers may be induced, by sufficient salaries, or the use of proper rooms, etc., to instruct all that offer themselves," and pointed to the "judicious establishment of parish schools" in Scotland and North America, Priestley, in his distrust of State intervention, was typical of the eighteenth century Nonconformist thinkers on the relation of the State to education.

In 1793 Godwin published "An Enquiry Concerning Political Justice." He held that government even in its best form was an evil and that its coercive power ought to be abolished. In Book VI, Chapter VIII, "Of National Education", he considers "a mode in which government has been accustomed to interfere for the purpose of influencing opinion, ... by the superintendence it has in a greater or less degree exerted in the article of education." The
first objection to a system of national education lies in the conservatism of established institutions. They are opposed to progress and change and "include in them the idea of permanence." They teach what is already known but forget that more remains to be known. In the knowledge taught, universities are a century behind the times; and even in the petty institution of Sunday schools, the chief lessons that are taught are a superstitious veneration for the church of England, and to bow to every man in a handsome coat." Public institutions of education are apt to separate tenets from the evidence on which their validity depends, and consequently they teach prejudices instead of perceptions based upon direct examination of truth. "Secondly, the idea of national education is founded in an inattention to the nature of mind. Whatever each man does for himself is well done; whatever his neighbours or his country undertake to do for him is done ill. He that learns because he desires to learn, will listen to the instructions he receives, and apprehend their meaning. He that teaches because he desires to teach, will discharge his occupation with enthusiasm and energy." In the third place, national education ought to be discouraged because of its obvious alliance with national government. Government will employ education to strengthen its own hands and perpetuate its institutions. Youth should not be instructed to "venerate the constitution, however excellent; they should be led to venerate truth; and the constitution only so far as it corresponds with their un-
influenced deduction of truth." Even the best and most liberal of constitutions contain errors, "and a national education has the most direct tendency to perpetuate these errors, and to form all minds upon one model."

Finally, it is a mistake to suppose that the State need undertake education in order to inform people of the nature of offences punishable at law. "All real crimes are capable of being discerned without the teaching of law. All supposed crimes not capable of being so discerned, are truly and unalterably innocent." The idea of a national education, "or even perhaps of the necessity of a written law, would never have occurred, if government and jurisprudence had never attempted the arbitrary conversion of innocence into guilt."

Both Priestley and Godwin began life as Dissenters; both were therefore imbued with the Nonconformist ideal of individual freedom and distrust of State interference in all matters of opinion, including education and religion. In respect of State intervention in education their views agreed with those of Churchmen who claimed education as the proper concern of the Church, and who did not wish it to become a State enterprise, lest that might tend to destroy the influence of the Church in promoting the religious education of the working classes. There was also, in a sense, common ground here between the Radicals and the Tories. Freedom of the individual in education corresponded to freedom of the individual in trade and industry, and found favour in an age marked by a general distrust of State interference. So far as education was concerned, the ideas
of advanced Radical thinkers was congenial to the early nineteenth century generation whose mottoes were, *laissez faire, laissez aller*, and "way for individual enterprise." In this and other respects Priestley and Godwin did much to establish the tradition which Herbert Spencer inherited; for on both sides of the house Spencer's ancestry was marked by strong nonconformity and dissent.

That tradition was inimical to the spread of universal compulsory education. Even while Priestley and Godwin were writing, England was rapidly changing from an agricultural to an industrial nation, and its population from a rural- to an urban-dwelling one. The State was the only institution powerful enough to have provided adequate education for the masses, and public opinion was against State intervention.

**English Education in the Nineteenth Century.**

The three-quarters of a century from 1800 to 1875 was a transition period in the history of Britain. Those seventy-five years witnessed the final transformation of a thinly-populated agricultural country into a crowded industrial State, and the gradual emergence of two new classes, a middle class composed of merchants, factory-owners and managers, and a vast artisan class huddled together in towns and living, in large part, on the margin of subsistence.

Accompanying these changes went a gradual shifting of political power from a Tory aristocracy to an industrial middle class; a persistent attack upon the exclusive privil-
eges of the Established Church; an insistent demand for freedom of the press, of religious belief and of opinion generally; the growth of trades unions; a breach with laissez faire in industry and education; the establishment of Free Trade; the reform of the Penal Code; and a drastic reform of the Poor Laws.

The period was one of reconstruction in all departments of social life. The people were beginning to acquire for themselves the right of self-government, and to create agencies by which to exercise it, not only in respect of the country as a whole through a more broadly based Parliamentary franchise, but also in the towns and country districts, where new Municipal Councils and Boards of Guardians were being constituted to discharge public utility services. The principle of laissez faire was gradually being abandoned as it began to be realised that material happiness and prosperity demanded that the State should interfere to protect the poor against the rich and prevent the new system of industry from exploiting the minds and bodies of a helpless and ignorant labouring class. Through Public Health Acts, Poor Law Reform and Factory Legislation, the initiative of the State was more and more being exercised in spheres which hitherto had been left to individual or private philanthropic enterprise.

In education no less than in other departments of social life laissez faire was being superseded. But here the progress of State intervention was slow. Some of the reasons for this have already been indicated. The legacy of eighteenth century thought acted as a drag upon pro-
Education was regarded as a sphere which ought to be reserved for the individual. The Benthamites were certainly zealous in the cause of popular education, but they advocated a kind of individualist democracy in which the State should refrain from meddling in the concerns of its citizens or should consult each individual in regard to those duties which it was forced to undertake. Nonconformity, organising itself anew in Wesleyanism, was undoubtedly desirous of promoting education, but it was naturally suspicious of State establishment and clung to the old idea of making education a philanthropic enterprise to be provided by the well-to-do as an act of charity to the deserving poor. For these reasons, therefore, it is unfair to blame the aristocratic governing classes for their failure to realise that a new England called for a new system of education. During the early part of the nineteenth century, the whole spirit of the times was in favour of 

*laisséz faire* and antagonistic to the idea of social responsibility for education. Even when change began to be apparent, the country was too much occupied with the other necessary reforms, Poor Law reform, repeal of the Corn Laws, Franchise reform, to have leisure for a comprehensive scheme of educational reform. Thus it was almost a hundred years after the Industrial Revolution before a national system of education was finally introduced in England.

Characteristically, nineteenth century State intervention in education began by an Act passed in 1802 for the better treatment of pauper apprentices. This was
"The Health and Morals of Apprentices Act", which besides limiting the hours of labour of parish apprentices employed in factories, and providing for their better accommodation, required them to receive an elementary education during the day in reading, writing and arithmetic. This was the earliest of the Factory Acts and also the forerunner of a number of Poor Law measures which included among their provisions various reforms affecting the education of poor children. For example, in 1844 an Act made possible the merging of Poor Law Unions or parishes into districts for school purposes and authorised expenditure up to one fifth of the average rates of the Union on the district school. This was the first instance in modern England of a local authority being established with rating powers for elementary education.

The first grant by Parliament in aid of elementary education was made in 1833, the year following the passing of the first Reform Bill. The resolution was to the effect "that a sum, not exceeding £20,000, be granted to His Majesty, to be issued in aid of private subscriptions for the erection of schoolhouses for the education of the children of the poorer classes in Great Britain." The grant it should be noted, was made "in aid of private subscriptions" and was intended for "the education of the children of the poorer classes." It was dispensed by the Treasury through the agency of the National Society and the British and Foreign Society, so that a "balance" might be maintained between the schools of the Church of England and
those of the Nonconformists. Half the cost of the building of new school-houses had to be met by voluntary subscriptions. This grant was continued yearly for six years, and in 1835 Parliament voted an additional £10,000 for the establishment of a Normal School or Training College for teachers. But this project, being opposed by both Churchmen and Nonconformists was dropped.

In 1839 an important step towards a national system of education was taken by the creation of the "Committee of the Privy Council on Education" to "superintend the application of any sums voted by Parliament for the purpose of promoting public education." The Committee was constituted on April 10th, 1839, and at once revived the project for a National Normal School. This again aroused widespread opposition owing to religious prejudice, and had to be abandoned. More important was the recommendation which the Committee carried that grants to schools should be conditional on the "right of inspection ... in order to secure a conformity to the regulations and discipline established in the several schools, with such improvements as may from time to time be suggested by the Committee." The right of inspection by public officials prepared the way for a much closer relation between the schools and the State. Dr. Kay (afterwards Sir James Kay-Shuttleworth) was made Secretary of the Committee, and under his wise, tactful and far-sighted guidance the foundations of a national system of education began to be laid.

A second attempt was made to promote the national-
ising of education in 1843, under Dr. Kay's guidance. This was embodied in the Factory Bill of that year, which proposed inter alia that children between eight and thirteen were not to be made to work more than six-and-a-half hours a day and were to be compelled to attend school for three hours. Government loans were to be given towards the building of new schools to provide for this compulsory education, and the schools were to be supported out of the poor rates. But in the eyes of the Nonconformists and the Whigs, the damning clause was that which prescribed that the schoolmaster was to be a member of the Church of England. The outcry against the Bill was so strong that the Government was compelled to withdraw it, and be content with passing in the following year the non-contentious clauses regulating the hours of labour of children in factories.

An important outcome of the opposition to the Bill was the formation of a group of Dissenters, the Voluntaryists, who denied the right of the State to interfere at all in the question of education, since no secular power had any claim to interfere in a spiritual question. Nonconformists had, through the British and Foreign School Society, accepted government grants in aid of their schools, but now a section of them, mostly Congregationalists and Baptists, fearing that the Established Church through the National Society would gradually be able to absorb the whole grant, turned against all State aid in education. In place of State aid and State interference, the Voluntaryists would substitute self-help and free competition. Two
organisations were formed, "The Baptist Voluntary Education Society", and "The Congregational Board of Education* to promote the advancement of Popular Education, upon strictly religious principles, free from all magisterial authority." The old objections to State education reappear: it tended to uniformity and conservatism in a sphere where diversity and progress were essential. "Government can build schools, advance money, employ masters, commission inspectors, and distribute books; and it can so cover the land with the means and aspect of education, but it cannot educate. Soon all this will be found obstructive machinery, cumbering the ground. Change will be impossible. School books will be as unchangeable as Church books, and for the same reason -- their fixed use and immense numbers. A vast interest will be created and stand as an insurmountable obstacle to spontaneous effort and improvement."

There were other objections put forward. State enterprise destroyed interest in education on the part of parents who, if forced to make sacrifices to educate their own children, would see to it that the instructors were competent and were kept up-to-date and efficient by wholesome competition. Only when education was voluntary, were philanthropists induced to make contributions. Education rates

* The Congregational Board of Education reprinted as a pamphlet the chapter on "National Education" from Spencer's Social Statics under the title of "State Education Self-defeating." The pamphlet went through two editions. (Duncan, "Life and Letters of H. Spencer, p. 60).

In 1902 it was again reprinted by "The Northumberland Society for the Liberation of Education from State Control," with Spencer's permission. (Duncan, op.cit. p.465.)
which were used partly to teach religious doctrines at variance with the creed of many of those taxed, were unjust.

The individualistic principles which underlay the movement found a ready acceptance in the industrial north where the new middle class of factory owners were content to apply to education the methods by which they had themselves won success in the economic sphere. Opposed to State interference in industry, they were equally opposed to State interference in education. Indeed, they distrusted popular education in any form as likely to make their workers discontented with the appalling conditions under which they were compelled to labour, and as calculated to diminish the supply of child labour.

Though voluntaryism was clearly unable to cope with the problem of providing education in an industrial State, the enthusiasm generated by the movement had remarkable results. By 1851, 364 schools and one training college had been opened in England. But the districts which most needed education were generally the least well supplied; and gradually the number of those who supported the voluntary principles began to diminish. The Duke of Newcastle's Commission, which sat from 1858 to 1861, brought to light alarming deficiencies in the provision of elementary education, and the educational defects of non-inspected private elementary schools. The expense of providing a national system of elementary education was gradually seen to be beyond the ability of any private agency to meet. Belief in *laissez faire* as a principle applicable to every social
problem began to break down; and it began to become known that State education was achieving good results in Germany and the United States.

The way was being prepared for further State action. A revised Code was issued in 1861, which, by altering the method of paying the government grant, resulted in the teacher's ceasing to be an employé of the State and becoming the servant of the local school managers. The Second Reform Bill was passed in 1867; and recognition was becoming general of the pressing need to educate the masses. Agreement was fairly widespread that education would require to remain State-aided and State inspected; that it would need to be universal and compulsory; that each area would require to have a local education authority with rating powers to supplement voluntary enterprise; and that denominational schools must remain as part of the national system.

In 1870 the Elementary Education Act was passed. The Act was a compromise. It established the "dual-control" by which non-denominational schools provided by local authorities and maintained out of rates and Parliamentary grants, existed side by side with denominational schools built by subscriptions aided by Parliamentary grants but not by rates, and controlled by non-elected managers. A compromise was also embodied in the Act as between voluntary and compulsory provision of schools. The religious denominations were granted time to make good deficiencies in any district; but, if they failed to do so, School Boards were to be set up, charged with the power of levying...
rates and compelling the attendance at school of children between five and thirteen years of age.

With the Act of 1870, the State definitely recognised its obligations with regard to the education of its citizens. Thenceforth a gradual extension of State control occurred. The battle between the "voluntaryists" and those who favoured universal education in State schools had ended in a partial victory for the latter. But the Act of 1870 reflected even in its title the class distinction which had marked education in England for the past two centuries. It was not an Education Act; it was an Elementary Education Act. It was not an Act for the whole people of England: it was an Act for the children of the class that supported itself by manual labour. Even to-day, although the barrier between them is breaking down, there are two systems of education in England, an elementary system for the poorer classes, and a preparatory and secondary system for the children of the better-to-do.

Spencer's Attitude to National Education.

Herbert Spencer was from the beginning an uncompromising opponent of State intervention in education. From the date of his first Essays on "The Proper Sphere of Government" (1842) to the last year of his life, his attitude underwent no change. Conditions in England might change, Nonconformists and Churchmen might be won over to a realisation of the need for government provision and control of schools, but Spencer's views showed no corresponding alteration. In his strong antipathy to State action, he
carried on the individualism of the Puritan tradition. In his belief in Natural forces as a kind of Providence, and in his willingness to let poverty and crime cure themselves by a process of gradual extinction without the intervention of any social agency, he manifested the sternness of the Puritan view that the righteous should prosper by virtue of their own righteousness, and the idle, the lazy, and the vicious come to destruction as a just recompense for their slothfulness and sin.

Even after 1870, when the fruits of a national system of universal and compulsory schooling began to be apparent, Spencer did not abate his antagonism or fail to express his disapproval. "The Man versus The State", published in 1884, like the "Social Statics" (1850), is noteworthy for its strong emphasis on individualism, and is pervaded by the plea for the enforcement of "State ethics," by which among adults "rewards will be in proportion to desert, benefit in proportion to merit." State intervention in industry, education, charity or sanitation, interferes with the process of natural selection whereby the fittest survive and the improvident and good-for-nothings are eliminated.

As late as 1897, in a letter to Dr. Keatinge, Spencer reiterated his objections to State education on the grounds of its uniformity, absence of competition and infringement of individual liberty. In the very last year of his life he wrote a letter to Mr. Laurie Magnus (12 October, 1903) on the subject of a proposed educational periodical, *School*, in which he says:
"The only passage in your programme which calls for comment and suggests a fundamental doubt is that which commits me to a belief that 'the training of citizens and the preparation for life' should be undertaken by the State. Now, as from the beginning I have, and do still, maintain that the State has no such functions, and have further maintained that it is not for a government 'to mould children into good citizens, using its own discretion in settling what a good citizen is and how the child may be moulded into one', it appears to me that my approval just given is cancelled. Only if the word 'State' is omitted from the passage in question, so reducing the proposition to a self-evident one, can I endorse it."

We see in Spencer the typical eighteenth century Nonconformist with a rooted belief in individual enterprise, a passion for individual liberty and a perfervid hatred of State enterprise; rather than the nineteenth century rationalist equipped with the new biological knowledge and anxious to apply it to the betterment of humanity through the agency of the institutions of the State.

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CHAPTER II.

SPENCER'S EQUIPMENT FOR HIS LIFE'S WORK.

Birth, Ancestry and Parentage.
Education during Boyhood.
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CHAPTER II

SPENCER'S EQUIPMENT FOR HIS LIFE'S WORK.

Birth, Ancestry and Parentage.

Herbert Spencer, the first child of William George Spencer and Harriet Holmes, was born at Derby on the 27th of April, 1820. Of nine children born of the union, Herbert alone survived infancy. One sister, Louisa, a year his junior, lived for two years and nine months; and among Spencer's earliest recollections were memories of playing with her in the garden of their home. The other seven children died in the first weeks of infancy; and so it came about that, as Spencer himself says, one of his misfortunes was to have no brothers, and, a still greater misfortune, to have no sisters. As virtually an only child, he was deprived of the society of his contemporaries and of the education of the heart and sympathies which the social contacts involved in normal family life afford. This fact is not without importance in estimating Spencer's character and views, and more especially in interpreting his social and educational philosophy.

Another significant fact is that on both sides of
the house, his ancestry was marked by strong non-conformity and dissent. On his mother's side, Spencer traces his origin back to a stock that twice underwent exile to escape religious persecution; on his father's side, two traits were conspicuously displayed by his ancestry, the one prudence, shown by the comparatively mature age at which they married, the other non-conformity, manifested by the fact that the Spencers, like the Holméses, were among the earliest of Wesley's followers. Certain moral qualities, therefore, were common to both lines of ancestry: non-conformity to established beliefs; strength of character shown in a willingness to suffer persecution rather than sacrifice independence of opinion; and prudence exemplified in readiness to forego a present benefit for the sake of future benefits. "Has there not," asks Spencer, "been inheritance of these ancestral traits or or some of them? That the spirit of non-conformity is shown by me in various directions, no one can deny: the disregard of authority, political, religious or social, is very conspicuous. Along with this there goes, in a transfigured form, a placing of principles having superhuman origins above rules having human origins; for throughout all writings of mine relating to the affairs of men, it is contended that ethical injunctions stand above legal injunctions. And once more, there is everywhere shown in my discussions of political questions, a contemplation of remote results rather than immediate results, joined with an insistence on the importance of the first as compared with that of the last."

A belief sometimes entertained is that great men owe their eminence predominantly to their mothers; but this belief is doubtless due to the fact that great men commonly exhibit unusual filial piety and tend to ascribe their high qualities to the mother as the object of their
strongest affections. At any rate, in the case of Spencer, it does not appear that he owed much to his mother. Nor does he take any trouble to conceal his lack of indebtedness. Unlike her stock, Harriet Spencer betrayed an 'ingrained conformity' and an innate conservatism. "I never," says her son, "heard her pass any criticism on a pulpit utterance, or express any independent judgment on religious, ethical or political questions. 

Briefly characterized, she was of ordinary intelligence and of high moral nature -- a moral nature of which the deficiency was the reverse of that commonly to be observed: she was not sufficiently self-asserting: altruism was too little qualified by egoism."

Mrs Spencer seems to have been overshadowed, if not overawed, by the much stronger nature of her husband. Of the five brothers, Spencer thinks his father was "the flower of the flock". He had inventive ability, artistic perception, and considerable skill in draughtsmanship. To account for the last quality Spencer names his unusual keenness of the senses and delicacy of manipulation.

George Spencer was, like his father, a non-conformist; but he carried his non-conformity to extremes. He would never take off his hat to anyone, no matter of what rank, and he could not be induced to address anyone as "Esquire" or "Reverend", all his letters being addressed "Mr". He would never put on any signs of mourning even for father or mother, holding that since such signs were in so many cases insincere, they should be discouraged. His "passion for reforming the world" was shown in small things as well as in large. The publication of his Lucid Shorthand was held up time and again because of his intemperate desire..."
to alter, amend, modify or improve it. He had a fondness for revising dictionaries, and so strong a liking for lucidity of expression that he would habitually ignore or refuse to answer questions put to him by his wife if they lacked clarity. This implied tendency to faultfinding led to his 'one great drawback,' his lack of kindness to his wife. His temper was not always under control, and his sympathies were imperfect. His son shared the defect, which was probably the cause of his remaining a bachelor to the end of his life. In mitigation of his father's shortcoming in this essential social quality, Spencer mentions a nervous disorder which attacked him soon after his marriage. The lack of physical vitality and a consequent depression of spirits resulted in the father's showing less than the usual interest in his son's early education, and in denying him the natural expressions of affection which might have remedied a defect in his son's nature -- its one-sided intellectualism and lack of emotional warmth. Despite imperfect health the father's mind remained plastic to the end of his life -- so plastic that he changed his religious opinions after he was seventy.

On all counts Spencer owed much to his father. Reflecting on his nature at the age of 73, he says, "Whatever specialities of character and faculty in me are due to inheritance, are inherited from my father. Between my mother's mind and my own I see scarcely any resemblances, emotional or intellectual. She was very patient; I am

very impatient. She was tolerant of pain, bodily or mental; I am intolerant of it. She was little given to fault-finding with others; I am greatly given to it. She was submissive; I am the reverse of submissive. So, too, in respect of intellectual faculties, I can perceive no trait common to us; unless it be a certain greater calmness of judgment than was shown by my father, for my father's vivid representative faculty was apt to play him false. Not only, however, in the moral characters just named am I like my father, but such intellectual characters as are peculiar are derived from him." Of these Spencer names three. The first is the tendency to look for the causes underlying phenomena of all kinds coupled with an 'unconquerable belief' in natural causation as governing social as well as physical evolution. The second is the synthetic tendency exemplified in the father's little work on Inventional Geometry, and culminating in Spencer's exposition of philosophy as a system of completely co-ordinated knowledge. Spencer's method was to start with what he assumed to be a fundamental principle and upon it to build a coherent system of deductions. Thirdly, there went along with the synthetic tendency 'an almost equal analytic tendency.' "Both subjectively and objectively, the desire to build up was accompanied by an almost equal desire to delve down to the deepest accessible truth, which should serve as an unshakable foundation."

Of Spencer's four paternal uncles, Thomas had most in-
fluence on his nephew. He began life as a teacher in a school near Derby, but he succeeded later in entering Cambridge, whence he graduated as ninth wrangler. From the University he entered the Church and acquired a living at Charterhouse Hinton. There he distinguished himself as a social reformer and philanthropist. He built a school and appointed a master; organised the cultivation of small allotments; established a clothing club; built cottages of an improved design; and, in the face of great opposition, applied to his parish the provisions of the new Poor Law, thereby reducing the rates from £700 a year to £200 a year, and at the same time increasing the comfort and prosperity of the parish. He was interested in Church-reform and was a keen politician, taking an active part in the agitation for the repeal of the Corn Laws. By writing a pamphlet on Church-reform which offended his bishop, he destroyed all prospects of clerical preferment. This uncle Thomas was entrusted with the education of his nephew Herbert during the impressionable years of the latter's adolescence (13 to 16); and the period spent at Hinton was the only disciplined and systematic course of study which the future philosopher underwent. Thomas was without a doubt the most outstanding of the brotherhood.

The brothers were frequent visitors at his father's house; and listening to the discussions which went on between them was by no means the least valuable part of Spencer's education. These discussions turned usually on social and ethical topics, and were marked by an absence of
personal gossip and an interest in the general and the abstract. "As a boy," says Spencer, "I rarely if ever heard among them (the uncles) any talk about royal personages, or court doings, or anything concerning bishops and lords, or any agents of the ruling powers. Their conversation ever tended towards the impersonal. ....... Their discussions never referred to poetry, or fiction, or the drama. Nor was the reading of history carried to any extent by them. And, though in early life they were all musical, the aesthetic in general had no great attractions. It was rather the scientific interpretations and moral aspects of things which occupied their thoughts."

Independence, self-asserting judgment, the tendency to non-conformity, the unrestrained display of sentiments and opinions, interest in political, social, religious and ethical matters -- in that list Spencer sums up the traits common to his uncles, mentioning them because they indicate family characteristics which he himself would be likely to inherit. Students of Spencer's life will readily agree that he bred true to type.

Education during Boyhood.

More than most men, Spencer was prone to generalise on his own experience; and in his writings on education there is abundant evidence that his views were coloured by the impressions his own schooling had left upon him. It is of importance, therefore, to note the kind of discipline he himself underwent, before any attempt is made to appraise his contribution to educational thought.

As an only child under a father whom ill-health and material cares had somewhat depressed, his early life could not have been of the happiest. His most poignant memory of his life at Derby up to the age of four was
that of being left by his nurse shut up in the house alone, during which time he first suffered the 'agonies of solitude.'

In 1824, the family removed from Derby to New Radford, near Nottingham; and there began the desultory instruction which lasted until he was seven and the family returned to Derby. The father was by profession a teacher, and, despite his irritability, he appears to have been very successful in his vocation. His ruling principle was non-coercion. Self-help and independent discovery, rather than passive reception, were his mottoes. These principles he applied in the upbringing of his son. He prescribed little of the ordinary lesson-learning, partly on principle and partly because he believed that his son was not constitutionally strong. "In teaching him his letters," says the father, "which I began to do when about 4 years old by beginning with the capitals and cutting them out in paper for him, although he learned a certain number of them with ease, perceiving he did not ask to learn any more, nor even to renew his knowledge of those he had learned, I ceased to invite him." One result of this regime was Spencer's 'repugnance to rote learning,' which remained a life-long characteristic, and which led to his insistence on the method of self-discovery as the "natural" method in education. There resulted also the fact that, not being able to read with ease until he was seven years of age, he was much behind other children in the usual scholastic accomplishments. But there were compensations.
He was allowed to ramble freely about a tract of waste land bordering his home, and there and then he began a habit of first-hand nature-study which was to stand him in good stead in his future life-work. There also he discovered the charm of adventure in exploring the paths among the gorse bushes, and the delight of gathering blue-bells and collecting fragments of wool left by passing sheep.

On the return to Derby the ordinary school-drill remained still in abeyance. But the nature-study went on. Young Spencer spent most of his time in the garden attached to the new home, or in exploring the neighbouring districts of Osmaston and Normanton, "now in the spring seeking birds' nests, now gathering violets or dog roses, and later in the year collecting sometimes mushrooms, sometimes blackberries, sometimes hips and haws, crab-apples and other wild products." "Most children," Spencer observes, "are instinctively naturalists, and were they encouraged would readily pass from careless observations to careful and deliberate ones. My father was wise in such matters; and I was not simply allowed but encouraged to enter on natural history." One branch of natural history, entomology, was pursued more systematically under the father's direction. Spencer caught and reared various insects, made drawings of them, and occasionally added descriptions. Drawing remained a favourite pursuit all through boyhood; but it was always from the actual object, the father objecting to the
practice of drawing from copies. For Saturday afternoon and holidays, there was fishing in the neighbouring streams — a form of recreation to which Spencer remained very much attached throughout life.

Spencer's first experience of regular schooling was at a day-school kept by a Mr. Mather, 'a very ordinary mechanical kind of teacher, who had no power of interesting his pupils in what they were taught.' As was to be expected, Spencer made little progress. His repugnance to rote-learning prevented his acquiring the usual proficiency in the drill subjects. He objected to the learning of Latin grammar because of its 'want of system.' His disregard of authority resulted in chronic disobedience; and as his father had forbidden punishment, there was no curb to the exercise of his excessive self-will. Mr. Mather's dogmatism succeeded only in rousing his pupil's opposition. "The mere authoritative statement," says Spencer, "that so-and-so is so-and-so, made without evidence or intelligible reason, seems to have been from the outset constitutionally repugnant to me."

More profit was derived from a period of attendance begun at the age of ten at his Uncle William's school. Here the method of instruction was more to his liking; and some progress was made in experimental mechanics, drawing from objects and geography. A beginning was made to Greek by tackling a portion of the Greek Testament without any preliminary study of grammar.

Up to the age of thirteen, however, informal edu-
cation contributed by far the most important influence to Spencer's mental development. Reference has already been made to the discussions which he heard carried on by his father and his uncles or other visitors to his home. He was a frequent listener to informal debates on ethical, religious, political or scientific questions. He took part also in experiments initiated by his father in physics and chemistry. There was a constant search for causes; and in this the father insisted on self-discovery rather than passive acceptance of the explanations of others. Along with this experimentation went a course of miscellaneous reading. As soon as he could read tolerably, he began to read fiction with avidity. This was carried on by stealth, both his parents disapproving of imaginative works, poetry excepted. The usual nursery books were absent. *Sandford and Merton* first prompted him to read of his own accord. Then followed *The Castle of Otranto*, the stories of Mrs Radcliffe and other similar romances. About the age of eleven or twelve he passed from fiction to travel and history. He read Gibbon and the whole of Rollin's *Ancient History*. He appears to have forgotten this early experience when writing the essay, *What Knowledge is of Most Worth?*, wherein he disapproves of biographical history, for in speaking of this part of his education, he remarks, "The epical interest is dominant in early stages, alike of the individual and of the race; and I had then more liking for personal narratives and accounts of striking
events, for details of battles and sieges, than afterwards remained with me." Besides books he had access to such miscellaneous periodicals as the Lancet, the British and Foreign Medical Review, the Medico-Chirurgical Review, the Athenæum, the Mechanics' Magazine, and Chambers's Journal. The topics which interested him most were those dealing with mechanical, physical, medical, and anatomical subjects.

Speaking of the results of his education up to the age of thirteen, Spencer says, "I knew nothing worth mentioning of Latin and Greek: my acquaintance with Latin being limited to ability to repeat very imperfectly the declensions and a part only of the conjugations (for I never got all through them); and my acquaintance with Greek being such only as was acquired in the course of a word for word translation, under my uncle William's guidance, of the first few chapters of the Greek Testament. Moreover I was wholly uninstructed in English -- using the name in its technical sense: not a word of English grammar had been learned by me, not a lesson in composition. I had merely the ordinary knowledge of arithmetic; and, beyond that, no knowledge of mathematics. Of English history nothing; of ancient history a little; of ancient literature in translation nothing; of biography nothing. Concerning things around, however, and their properties, I knew a good deal more than is known by most boys. My conceptions of physical principles and processes had considerable clearness; and I had a fair acquaintance with sundry special phenomena in physics and chemistry. I had also acquired, both by personal observation and by reading, some knowledge of animal life, and especially of insect life; but no knowledge of botany, either popular or systematic. By miscellaneous reading a little mechanical, medical, anatomical, and physiological information had been gained; as also a good deal of information about the various parts of the world and their inhabitants. Such were the acquisitions which formed a set-off against the ignorance of those things commonly learned by boys.

"Something remains to be named, however. I refer to the benefit derived from an unusual mental discipline. My father's method, as already intimated, was that of self-help carried out in all directions."
Beyond such self-help as I have already exemplified, there was always a prompting to intellectual self-help. A constant question with him was, --'I wonder what is the cause of so-and-so;' or again, putting it directly to me, --'Can you tell me the cause of this?' Always the tendency in himself, and the tendency strengthened in me, was to regard everything as naturally caused; and I doubt not that while the notion of causation was thus rendered much more definite in me than in most of my age, there was established a habit of seeking for causes, as well as a tacit belief in the universality of causation. Along with this there went absence of all suggestion of the miraculous. I do not remember my father ever referring to anything as explicable by supernatural agency. I presume from other evidence that he must at that time have still accepted the current belief in miracles; but I never perceived any trace of it in his conversation. Certainly his remarks about the surrounding world gave no sign of any other thought than that of uniform natural law.

"Let me add that there was on his part no appeal to authority as a reason for accepting a belief. That same independence of judgment which he had himself, he tended, alike intentionally and unintentionally, to foster in others; and in me he did it very effectually, whether with purpose or not. Doubtless it existed innately: but his discipline strengthened it."

Education during Adolescence.

It was perhaps fortunate for Spencer that during the years from thirteen to sixteen, the years of adolescence, he came under the charge of his Uncle Thomas at Hinton. Those three years were the only experience he had of systematic instruction and disciplined study. It required a Spencer to control a Spencer; and the uncle had sufficient of the family self-assertion to impose a salutary restraint on the nephew's self-will.

It was not to be expected that the association would run smoothly from the outset. Spencer had been inveigled into the discipleship by a stratagem. He had gone with
his parents, ostensibly on a month's visit, and when he discovered, on the departure of his father and mother, that his stay was to be prolonged, he resented the subterfuge, and found the unaccustomed restraint irksome to a degree. There was besides a violent attack of nostalgia. Another lad might have lived it down, and have decided to make the best of it. Not so Spencer. He quietly made up his mind to run away. With only two shillings in his pocket, and without taking counsel with anyone, he slipped away from his uncle's house at six o'clock in the morning and set out to walk from Hinton to Derby. Without any food but bread and water and two or three glasses of beer, and without sleep for two nights, he, a boy of thirteen, walked 48 miles one day, 47 the next, and some 20 the third. It says much for Spencer's physical stamina but more for his doggedness of purpose, resentment of injustice, and repugnance to control. The father no doubt realised that the escapade had been brought about partly by his own lack of frankness, and also no doubt felt somewhat flattered at the implied affection for home on his son's part. So, as a wise man, he made little of the rebellion, but after an interval for rest and recuperation he sent his son back to the parsonage at Hinton.

From this time on, the relationship between teacher and pupil continued to be more or less harmonious, and Spencer applied himself to his studies fairly assiduously. The regime was not severe. "In the morning Euclid and Latin, in the afternoon commonly gardening, or sometimes,
a walk; and in the evening, after a little more study, usually of Algebra, I think, came reading, with occasionally chess." Spencer was not a very industrious pupil. He thinks that idleness was constitutional in him. He needed the stimulus of some powerful motive, usually the desire to compass some large end. He was still much averse to linguistic studies, although he surprised his uncle by his extensive acquaintance with words, gained, he thinks, by reading all kinds of books and listening to the conversation of his elders. Under his uncle he made a beginning to French grammar and continued his study of Latin and Greek; but his progress in languages was slight. In later life he had difficulty in reading even French, and his knowledge of Latin and Greek was still more imperfect. His dislike of linguistic study was comprehended under a wider dislike of dogmatic teaching of any kind. The only kind of language study which would have been tolerable to him would have been comparative study — philology as the science of language in general. The mere acceptance on authority that such a symbol means such and such a thing he could never tolerate.

With mathematics and science the case was quite different. Under a skilful and intelligent teacher, such as his uncle was, his progress was rapid. He was delighted with the study of trigonometry. Algebra and geometry, where every fact was demonstrable and capable of rigid proof, made strong appeal to him. His self-confidence and disregard for authority were shown in his objection
to a statement on the nature of inertia which occurred in Arnott's Physics, the text-book employed by his uncle. The uncle supported Dr. Arnott's opinion, but Spencer, unable to resist his tendency to criticize opinions, obstinately defended his own belief in the presence of teacher, fellow-pupil and aunt. It is hardly to be wondered at that his uncle reported that "the grand deficiency in Herbert's natural character is in the principle of Fear;" or that his relatives "had to deal with intractable material -- an individuality too stiff to be easily moulded."

While the scientific studies proceeded satisfactorily, there was an almost complete absence of the humanities. Spencer more than once insists on his almost complete ignorance of English grammar. The course of education at Hinton included no history, 'no culture in general literature,' no reading of poetry or fiction. With the negligible exception of a smattering of French, Latin and Greek, the studies were confined to the abstract sciences, such as mathematics, physics and mechanics, together with a little chemistry. The concrete sciences were for the most part omitted.

The moral discipline was highly beneficial. At home the control had been too lax, and had consequently led to frequent disobedience and reprimands, resulting in a sullenness of mind and a state of chronic rebellion. At Hinton the uncle's rule was strong enough to compel obedience; and for the only period of his life Spencer experienced what it meant to subordinate his will to a
stronger will. If criticism is to be made at all, it is to the effect that the asceticism of the uncle's nature led him to neglect the emotions and to deny his pupil the outward show of affection which he undoubtedly felt for him. It was a childless home into which Spencer was received and one in which the amenities of social intercourse were rarely experienced. Thomas Spencer had little of the small change of polite intercourse and was too much absorbed in his schemes of social betterment to have time for more than a minimum of entertaining. Spencer's fellow-pupils were too far beneath him in intellectual ability for him to benefit much from their company. Their competition was not serious enough to curb his somewhat excessive vanity.

One noteworthy event occurred during the three years' stay at Hinton. That was Spencer's first appearance in print. At the age of sixteen he wrote two articles for a small periodical, The Bath Magazine. One was a letter describing the formation of certain floating crystals, noted by Spencer in a little experiment on the crystallization of common salt. The other took the form of a critical reply to a communication antagonistic to the New Poor Law, which had appeared in the first number of the magazine. This topic was suggested by the frequent conversations which Spencer listened to at Hinton. These discussions undoubtedly had their influence in shaping the course of Spencer's later interests, and made their contribution to the train of thought which led to the writ-
ing of his first considerable work, Social Statics.

Results of Spencer's Education.

In summing up Spencer's education, we may note first the absence of regular school life. His only considerable experience of this was in the school of his uncle William, where his attendance was of short duration and where he had a somewhat privileged position. In considering Spencer's criticisms of the ordinary school regime, we must remember that his acquaintance with it was largely at second hand. It is fair to conjecture, however, that Spencer could never have been happy at a public school. His individuality was too strongly marked, his bent of mind was too strongly scientific, his independence too aggressive for successful and harmonious co-operation with school-fellows or for profitable intercourse with schoolmasters. But the lack of the normal experiences of boyhood had its drawbacks. Excessive individualism was fostered rather than repressed, one result being that Spencer failed afterwards to lay proper emphasis on the social side of education and tended to regard the process as entirely one of instruction.

In the second place, the absence of the humanities constituted a serious defect in his education. Language, literature and history are social studies which demand for their appreciation a due amount of sympathy and social insight, and which in turn foster the social sympathies and increase social insight. Spencer had too little of either. As a boy, it is true, he was for a time much given to day-dreaming,
which, in moderation, he regarded as beneficial as a means of exercising the 'constructive imagination'. Accompanying that trait went a strong taste for fiction, which, as we have seen, he contrived to indulge to his heart's content. There can be no doubt that if he had continued to cultivate this taste, and especially if it had been guided and refined by a due amount of literary and historical instruction, his social and educational philosophies would have been saved from an abstractness and a one-sidedness which much impair their value. For example, his view of the value of history is extraordinarily biased. Anyone who could have allowed himself to write of the contribution of Greece and Rome to modern civilization as Spencer did, must either have been unfortunate in his studies or deficient in historical imagination. "To one who never received the bias given by the established course of culture," says Spencer, "and on whom the authority of traditions and customs weighs but little, the state of opinion about the matter appears astounding. To think that after these thousands of years of civilization, the prevailing belief should still be that while knowledge of his own nature, bodily and mental, and of the world physical and social in which he has to live, is of no moment to a man, it is of great moment that he should master the languages of two extinct peoples and become familiar with their legends, battles, and superstitions, as well as the achievements, mostly sanguinary, of their men, and the crimes of their gods! Two local groups of facts and fictions, filling relatively minute space in the genesis of a World which is itself but an infinitesimal part of the Universe, so occupy students that they leave the World and the Universe unstudied! Had Greece and Rome never existed, human life, and the right conduct of it, would have been in their essentials exactly what they now are: survival or death, health or disease, prosperity or adversity, happiness or misery, would have been just in the same ways determined by the adjustment or non-
adjustment of actions to requirements. And yet knowledge subserving the adjustment which so profoundly concerns men from hour to hour, is contemptuously neglected; while the best preparation for complete living is supposed to be familiarity with the words and thoughts, successes and disasters, follies, vices and atrocities, of two peoples whose intelligence was certainly not above ours, whose moral standard was unquestionably lower, and whose acquaintance with the nature of things, internal and external, was relatively small. Still more when from the value of knowledge for guidance we pass to the value it has for general illumination, may we continue to marvel at the perversity with which, generation after generation, students spend their years over the errors of ancient speculators who had no adequate data for their reasonings, while all that modern science, having for materials the accumulated and generalized observations of centuries, can tell respecting ourselves and our surroundings, they ignore; or if they glance at it, do so at leisure hours as at something relatively unimportant. In times to come this condition of opinion will be instanced as one of the strange aberrations through which Humanity has passed."

In the third place, Spencer, as an only child, was denied the informal education which comes from intercourse with brothers and sisters in the home. He was almost continually in the society of adults; and his natural precocity was stimulated and encouraged instead of being allowed to develop more naturally, as it would have done had there been less attention devoted to his mental development. It must not be thought, however, that Spencer was encouraged to overwork himself. Unless when his interest was thoroughly aroused, he appears to have been by nature an idler. Much as he deplores the forcing process which, he thinks, results in premature development of mind at the expense of growth, there is no ground for thinking that he himself suffered in this way. Non-coercion was the key-note of his own education. If there
was a defect here, it was constituted rather by the absence of control than by an over-rigidity. A period of regular work like that at Hinton but under a master other than a Spencer, with an interest in history and an enthusiasm for literature, might have done much to broaden his outlook and counterbalance the family preference for scientific studies.

Spencer never passed an examination; nor did he think he could have passed any of the examinations commonly set. In estimating how far this lack of academic training affected his ultimate success, he comes to the conclusion that its advantages outweighed its disadvantages. The disadvantages consist of a want of precision in the knowledge of facts, and an absence of readiness to apply these facts in ordinary ways. But the deficiencies are more than compensated for in the greater readiness to think in original ways and in the fuller development of the innate potentialities of the mind. Spencer thinks that examinations are meant to test acquisition rather than power of independent thought and ought to be reformed so that they may test the candidate's capacity for original thinking.

For the ordinary boy the customary academic discipline is doubtless advantageous in so far as it stores the mind with useful information and gives a training in how to apply that information. For the supernormal boy, on the other hand, such as Spencer certainly was, the absence of restraint is all to the good. It allows genius to
unfold itself in its own way and avoids stifling originality by not forcing the mind to develop on conventional lines. In Spencer's case we may conclude that while the customary schooling would have been harmful, a little more discipline applied with an understanding of his idiosyncrasies would have been wholly beneficial.

Experience as a Teacher -- "A False Start."

Spencer's systematic education under his uncle Thomas ended in 1836, and he returned to his home in Derby. There he was left for a year to his own devices, and passed the time in miscellaneous pursuits which included a little practical surveying, architectural drawing, geometrical study, and angling -- always a favourite recreation. It was during this period that he discovered a new property of the circle, which he published with a proof two years later.

In the early autumn of 1837 a vacancy occurred in Mr Mather's school, where Spencer had himself been a pupil for a short period in early boyhood; and Spencer was offered the post. He accepted it with some reluctance. For the next three months he had his first and only experience of actual teaching. In this he appears to have been quite successful. Mr. Mather assigned him 'the least mechanical part of the teaching'; and Spencer, taking pleasure himself in his lessons, succeeded in creating interest in the minds of his pupils. He succeeded so well, in fact, that, as he tells us, his weekly lesson in geom-
etry was eagerly looked forward to. As his later writings show, he had a natural gift for clear and vivid exposition, so that he easily gained and held the attention of his pupils. His strong dislike of coercive methods and rigid discipline led to his exercising a very mild control over his pupils, with whom his relations were entirely harmonious. Later on when circumstances threw him into contact with children, he speedily became a favourite; apparently showing a sympathy with them which would have stood him in good stead as a teacher. It was always his practice to study their individualities before attempting to enter on terms of familiarity with them.

Would Spencer have been successful if he had followed the 'ancestral profession'? His own answer to this question was — yes and no. Yes, if he could have exercised a supervisory function over some new kind of educational institution organised in accordance with his own ideals and staffed by intelligent assistants willing to carry out his instructions. No, if he had had to work under the ordinary kind of schoolmaster. The obstacles to success would have been his dislike of mechanical routine, his intolerance of monotony, and the opposition of parents to the new curriculum he would have introduced. He continued to dwell upon imaginary schemes for a practical demonstration of his educational ideas, involving intellectual culture, moral discipline and physical training; but nothing came of these visionary
projects. His energies were to be fully engaged in the
grander task of elaborating the synthetic philosophy.
Like many other reformers, Spencer was more powerful in
the domain of theory than in the field of practice. His
mind was ill suited for the trivial round of teaching,
for the give and take of the schoolroom, and the in-
evitable drudgery entailed in the process of instruction.

Criticism of Teaching Methods.

He had no high opinion of the ordinary schoolmasters
of the time -- "Men who have gone on generation after
generation pursuing a mere mechanical routine -- men
who have never brought any analytical faculty to bear
on the minds of their pupils -- men who have never
thought of trying to ascertain the normal course of
intellectual development, with the view of adapting
their methods to the successive stages reached -- men
who have, from the earliest stages to the present time,
taught abstractions before their pupils have acquired
any of the concrete facts from which they are abstrac-
tions; such men, I say, have naturally failed to im-
press their fellow citizens. One who, not being a
slave of tradition, contemplates schools as they have
been, and as many of them still are, instead of be-
ing struck by the stupidity of the pupils, may more
reasonably be struck by the stupidity of the masters."

His father was excepted from the general condemnation.
Spencer justifies the high rank which his father assigned
to the teacher's office by pointing out that the latter,
although he had never made a systematic study of mental
development, had formed some general ideas about it and
had recognized the need for adjusting the course of in-
struction to the successive stages through which the
mind passes. "Instead," says Spencer of his father, "of
persisting in methods devised in rude times and un-
thinkingly persevered in down to our own, he constant-
ly sought for better methods. Always he aimed to
secure an intelligent understanding of that which was taught: never being content with mere passive acceptance of it. And perceiving how involved a process is the unfolding of intellect, how important it is that the process should be aided and not thwarted, and what need there is for invention and judgment in the choice of means, he saw that, carried on as it should be, the educator's function is one that calls for intellectual powers of the highest order, and perpetually taxes these to the full. Not in intellect only, but in feeling, did his conception of the true educator demand superiority. He habitually sought, and sought successfully, to obtain the confidence of his pupils by showing sympathy with them in their difficulties and in their successes; and thus secured a state of mind favourable to intellectual achievement, as well as to emotional improvement."

Although the father was anxious that Spencer should follow in his footsteps, he recognised that the lad's bent lay elsewhere and wisely refrained from attempting any coercion. Thus when the three months were up, and an offer came from London of a post as civil engineer under Mr. Charles Fox, one of the pioneers of the railway enterprise then at its height, Spencer eagerly accepted it and entered on the next phase of his life which was to last, with interruptions, until he was twenty-six.

It is not necessary to follow his fortunes as an engineer, or his vicissitudes later as a London journalist, until the time when, at the age of forty, he began the stupendous task of writing the Synthetic Philosophy. Advance in age did little to change Spencer's fundamental ideas in education or philosophy; and it is possible to find in Social Statics, published when he was thirty, the ideas which he was elaborating in the successive volumes which he continued to publish or revise right up to the year 1900. We may therefore pass at once to consider
the educational doctrine enunciated in *Social Statics*. 

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CHAPTER III.

NATIONAL EDUCATION.

Early Antagonism towards Government. "Social Statics."
CHAPTER III.

NATIONAL EDUCATION.

Early Antagonism towards Government.

Throughout his whole life Spencer maintained a consistent opposition to the intervention of the State in education. It was characteristic of him that, having early come to the conclusions that government is "a national institution for preventing one man from infringing upon the rights of another," he never afterwards departed from it; but, as he says himself, he spent much of his energy in subsequent years in justifying and elaborating it. Individualism was characteristic of his stock. "Individuality was pronounced in all members of the family, and pronounced individuality is necessarily more or less at variance with authority. A self-dependent and self-asserting nature resists all such government as is not expressive of equitable restraint. Our family was essentially a dissenting family; and dissent is an expression of antagonism to arbitrary control. Of course a wish to limit State-action is a natural concomitant."

This "wish to limit State-action" was first publicly expressed in a series of letters (subsequently issued in
the form of a pamphlet) which Spencer contributed to the Nonconformist, an organ of the advanced Dissenters, during the course of the year, 1842. The general title of the letters was "The proper Sphere of Government"; and in them Spencer discussed such topics as Commercial Restrictions, A National Church, The Poor Laws, War, Government-Colonization, National Education, Sanitary Administration. They were the germ of "Social Statics;" "had they never been written," says Spencer, "Social Statics, which originated from them, would not even have been thought of." The general thesis of the letters is that the function of government is "simply to defend the natural rights of Men—to protect person and property—to prevent the aggressions of the powerful upon the weak—in a word, to administer justice." (Autobiogr. I, p. 209). Society has its laws just as much as matter or mind; and the "laws of society are of such a character that natural evils will rectify themselves by virtue of a 'self-adjusting principle'."

"Social Statics."

During the next few years Spencer continued to speculate along the lines laid down in "The Proper Sphere of Government"; and the result was the writing of his first considerable book, Social Statics, commenced early in the autumn of 1848, and published at the very end of 1850. The title originally selected for the work was "A System of Social and Political Morality," but ultimately the shorter title was preferred. The full title reads: "Social Statics: or, The Conditions Essential to Human Happiness Specified, and the First of them Developed."
The book discusses a system of what Spencer calls 'absolute ethics,' that is to say, the principles which will govern human conduct when man is perfectly developed and lives in complete adaptation to his environment, physical and social. 'Relative ethics,' or the principles which should govern conduct during the process of transition from incomplete to complete adaptation, are only briefly considered. Spencer looks forward to the time when men will have attained to a state of complete equilibrium with their environment, and when progress will no longer be possible or desirable. The aim will then be to preserve the equilibrium; and that, he thinks, will best be done if the law of equal freedom is complied with, namely, the law prescribing that each man shall have freedom to do all that he wills provided that he infringes not the equal freedom of all other men.

Temporary Nature of Governmental Institutions.

Still adhering nominally to supernaturalism, Spencer assumes that God wills human happiness. Happiness consists in the unrestrained exercise of faculty. Unrestrained exercise of faculty presupposes liberty of action. Therefore the happiness of man is contingent on the observance of the law of equal freedom. The ultimate state of equilibrium constitutes the standard of value by which society is to be judged; present conditions must be estimated in accordance with the degree to which they approximate to the final state. "The ultimate man," Spencer
tells us, "will be one whose private requirements coincide with public ones. He will be that manner of man who, in spontaneously fulfilling his own nature, incidentally performs the functions of a social unit; and yet is only enabled to fulfil his own nature, by all others doing the like." The State and its institutions are mere makeshifts, temporary expedients, destined to pass away when evolution is complete. Mankind will then live in a "state of no government."

Limited Functions of the State.

When Spencer comes to consider the functions of the State in existing societies, he forgets the need for its temporary existence, and proceeds to evaluate it against the ideal of complete anarchy, which he has set up as the end-state of the evolutionary process. Viewed in this light, State interference is almost entirely bad. At every point it infringes the law of equal freedom. Only two legitimate functions are left to it. In the first place, it must guarantee to every citizen liberty to do as he wishes subject only to his allowing a like freedom to every other citizen. In the second place, it may rightly protect society against foreign aggression. All other functions which the State arrogates to itself are unwarrantable interferences with individual "rights."

What the State ought not to do.

In his denunciations of the sins of legislators it is easy to detect the influence of Spencer's ingrained nonconformity, and his concern for the so-called natural
rights of the individual. Chapter after chapter of Social Statics catalogues the things the State ought not to do. It ought not to allow private ownership of land. Instead, private ownerships ought to be merged in "the joint-stock ownership of the public." Farmers should rent their land from the nation; so that all would be equally free to bid for a vacant farm, and all would alike benefit from the rents paid. The State ought not to attempt the regulation of commerce, for experience has shown that interference is neither expedient nor just. The State ought not to endow religion, since the establishing of a State Church assumes that the State can infallibly determine which is the true faith, and because State support of a particular creed argues the weakness of that creed to impose itself on men's minds without such support. The State ought not to dispense poor-relief. Taxes imposed for poor-relief infringe the law of equal freedom, by preventing the complete exercise of faculty on the part of those taxed. Besides, poor-relief has the effect, first, of drying up the spontaneous sympathy of the individual for his less fortunate fellows, and, more serious, of interfering with the "stern discipline" of nature, which, at the cost of much temporary suffering and misery, ultimately purges the race of weaklings, and helps on that complete adaptation to environment which constitutes the highest civilization. Again the State has no right to plant colonies, for the planting of colonies leads to expenses being incurred by the parent State which have to be met
out of taxes; and these taxes limit the freedom of its citizens in unwarrantable ways. Moreover, colonial government infringes the rights of the colonists, for the latter are invariably dictated to by authorities sent out from the mother-country.

There are other things which the State ought not to do. It ought not to institute sanitary enterprises, which, besides being more efficiently undertaken by private persons, if undertaken at all, interfere, like poor-relief, with the wise severity of nature's discipline. "Partly by weeding out those of lowest development, and partly by subjecting those who remain to the never-ceasing discipline of experience, nature secures the growth of a race who shall both understand the conditions of existence, and be able to act up to them." Finally, the State ought not to establish a State bank for the issue of notes; it ought not to control currency by minting its own coins; it ought not to undertake a postal service, as that can be most efficiently performed by private enterprise; it ought not to construct light-houses, harbours of refuge, canals, railways or roads -- all of which enterprises are best left to private initiative.

The State and Education.

The State has no right to educate. In order to provide a national system of education, the State must impose taxes; that is, it must take away a portion of a man's property, which deprives him of a portion of his right to the free exercise of his capacities—a reversal of the government's function towards him.
Alleged Reasons for State Interference.

(a) In considering the pretexts brought forward to justify State-intervention in education, Spencer quotes from J. S. Mill: "In the matter of education, the intervention of government is justifiable; because the case is one in which the interest and judgment of the consumer are not sufficient security for the goodness of the commodity." His reply to this is that a similar reason has been assigned for all State-interferences whatever. It is impossible to say in respect to what articles the judgment of the consumer is sufficient, and in respect to what other articles it is not sufficient. Experience teaches us that, "in the long run, the interest of the consumer is not only an efficient guarantee for the goodness of the things consumed, but the best guarantee."

Hence it is reasonable to conclude that the choice of commodities—education included—"may be safely left to the discretion of buyers."

Ignorant parents have three means of arriving at a proper choice. They will be quick to discern the effects of good or bad education on the children of others, and will act accordingly; they may follow the example of those better educated than themselves in the choice of schools; or, in the last resort, they have only to look to the price charged for schooling, since price is a "tolerably safe index of value." Even if some parents are lacking in discretion in the purchase of the education commodity, their number is bound progressively to diminish. "The rising generation will better understand
what good education is than their parents do, and their descendants will have clearer conceptions of it still." Improvement may be slow, but so is all social progress; and, remembering that "society is a growth, and not a manufacture," we must have patience.

(b) To say that government interposition is justified in order to safeguard the rights of children is to misunderstand the law of equal freedom. This law, though it applies to children, merely enacts the equal liberty of all to exercise every "previously existing power to pursue the objects of desire." "Omitting instruction in no way takes from a child's freedom to do whatsoever it wills in the best way it can; and this freedom is all that equity demands."

(c) Finally, it is not true to say that education by tending to diminish crime justifies the State in setting up a national system of education. "Crime is incurable, save by that gradual process of adaptation to the social state which humanity is undergoing. Crime is the continual breaking out of the old unadapted nature—the index of a character unfitted to its conditions—and only as fast as the unfitness diminishes can crime diminish." Education, as commonly practised, is concerned with the intellect. Crime results from the urge of unadjusted impulses and sentiments. Hence education, by sharpening the intellect, might easily have the effect of increasing crime by teaching people how better to
gratify their passions. The moral benefit which education may confer comes from a training of the emotions, rather than from a discipline of the intellect. "But," exclaims Spencer, "from all legislative attempts at emotional education may Heaven defend us!"

Difficulties involved in the Claim for State Education.

The claim for State education involves its upholders in many difficulties. "Conceding for a moment," says Spencer, "that the government is bound to educate a man's children, then, what kind of logic will demonstrate that it is not bound to feed and clothe them?"

If there is no logical escape from the syllogism, the result will be the total annulment of parental responsibility. In the second place, there is the ordeal of a definition to be undergone. If the State provides elementary education, it must find itself committed logically to the provision of university education as well. "Where, between the teaching of a dame-school, and the most comprehensive university curriculum, can the line be drawn separating that portion of mental culture which may be justly claimed of the State, from that which may not be so claimed?" If the three R's are State-taught, why not also astronomy, mechanics and geology? There is no unit of measure by which to determine the respective values of different kinds of knowledge. In the third place, there is the difficulty of deciding on the true aim and method of education. If government undertakes the provision of instruction, it must also
commit itself to a definition of its aim and method. The results will be a despotic and stringent control over the culture of the nation and the complete abolition of freedom of thought. "As from the proposition that government ought to teach religion, there springs the other proposition, that government must decide what is religious truth, and how it is to be taught; so, the assertion that government ought to educate, necessitates the further assertion that it must say what education is, and how it shall be conducted. And the same rigid popery, which we found to be a logical consequence in the one case, follows in the other also."

Dangers of State Education.

If education is left to the interest and judgment of a government -- meaning the individual members of the Cabinet --, the result will be less satisfactory than if it were left to the individual parent. The governing classes are conservative by nature and tradition. Their ideal of society is either a sentimental feudalism or the static maintenance of 'things as they are', where the people "shall be respectful to their betters, and 'content with that station of life to which it has pleased God to call them';" or else it is a State organised for the mere production of wealth. Besides being conservative, the governing classes are self-interested and selfish, so that a State system of education would be administered for the benefit of those in power rather than for the nation's benefit.

Far from benefiting from the conservatism of rulers, the institution of schooling, like all institutions, is too conservative as it is. "Education, properly so called, is closely associated with change -- is its pioneer --
is the never sleeping agent of revolution -- is always fitting men for higher things, and unfitting them for things as they are." State institutions of education will fight against this progressive tendency of "education properly so called." They will resist change, and will tend to teach the old "safe" subjects which are not likely to shake their pupils out of contentment with "things as they are." To illustrate this antagonism to all progress, change and reform, Spencer adduces examples from the time of the Egyptian priesthood downwards to his own day, and concludes that State-education will continue to show such characteristics "so long as men pursue private advantage at the expense of the common weal, that is to say -- so long as government is needful at all, so long will this be true."

State Education Self-defeating.

To think that the State can educate at all is to take a very narrow view of the meaning of education. It is to identify mere schooling with education in its widest sense, to emphasize formal education to the neglect of the informal education of life. Indeed "a government cannot in fact educate at all, but can only educate some by uneducating others." The best kind of discipline is the discipline of nature, which sees to it that men are adapted to their circumstances. State provision of education interferes with this discipline of nature by diminishing the need for self-restraint on the part of parents in begetting children. The labourer is to some extent
discouraged from marrying unduly early by the thought of having to provide education for his children; and after marriage the necessity of paying for schooling acts as a curb upon the improvident tendencies of the poor. "Hence," says Spencer, "a government can educate in one direction only by uneducating in another -- can confer knowledge only at the expense of character. It retards the development of a quality (self-restraint) universally needed -- one in the absence of which poverty, and recklessness, and crime, must ever continue; and all that it may give a smattering of information."

The "Natural" Agency.

The whole claim for the intervention of the State in education ignores Nature's "divinely-appointed" means of safeguarding the mental and physical development of the young, namely, parental affection. The pride of the mother and the interest of the father, the "servants and interpreters of nature", will see to it that children's welfare is duly promoted up to the limit of their parent's resources. State educationists show a childish impatience and a lack of faith in natural forces in seeking to use artificial means of achieving a result which is slowly but surely being brought about by a spontaneous self-unfolding of the national mind. The voluntary system of education may not bring about universal enlightenment in a generation; but social progress of all kinds is slow, like all great changes taking place in the universe. Are not continents upheaved at the rate of
a foot or two in a century? Is not the deposition of a delta the work of tens of thousands of years? Why then be disappointed that a pitiful fifty years has not sufficed for thorough popular enlightenment? Only refrain from legislative fingerings, and education will look after itself, since it is in the nature of things for education to undergo evolution.

Elaboration of Anti-State Arguments in "Justice" (1891).

Such are the arguments which Spencer brought forward against National Education in Social Statics, published when he was thirty. He is only speaking truth when he says that his whole subsequent life was spent in elaborating this negative view of State action. For example, in Justice, published in 1891 as a section of The Principles of Ethics (1893), the same views are reiterated. The formula of justice is:—"Every man is free to do that which he wills, provided he infringes not the equal freedom of any other man." Under their most general aspect, the duties of the State are to see that in "the incorporated mass of citizens", "each may gain the fullest life compatible with the fullest lives of fellow citizens."

The "true conception of State-duties," in industrial societies characterised by voluntary co-operation, is that the State can do nothing more beyond maintaining justice without its transgressing justice.

The strongest reason for restricting the range of governmental actions is that the highest end of statesmanship is the formation of character, and the formation
of character is best left to that "natural moulding" by which human nature will slowly "adjust itself to the requirements of a fully civilized future." The idea of State education is a relic of a time long past when society was predominantly militant. "While war is the chief business of life, the training of individuals by governmental agency after a pattern adapted to successful fighting, is a normal accompaniment," and "there naturally establishes itself the theory that not soldiers only, but all other members of the community, should be moulded by the government into fitness for their functions." But now that the industrial form of society is supreme, the relation of the individual to society is entirely altered. Instead of the individual being moulded by society to suit its purposes, the former now moulds society to suit his own individual purposes. "Unlike the Greek, who, not owning himself was owned by his city, the Englishman is not in any appreciable degree owned by his nation, but in a very positive way owns himself."

Even assuming that the State has any right to educate its citizens (which it has not) its education is bound to be bad. State education must result in uniformity, and uniformity spells death to the human species. Without variety there can be no progress; in the absence of variety life would never have evolved at all. Again, State education must foster submissiveness among the pupils, and on no showing can submissiveness be regarded as a feature in any desirable character. "Whether avow-
edly or not, part of the desired character must be readiness in each citizen to submit, or make his children submit, to a discipline which some or many citizens determine to impose." This faulty result of a State schooling is a consequence both of out-worn aims and of bad method. As regards aims, these are dependent on prevalent ideas and beliefs as to what constitutes fitness for life in society. Now, men inherit not only the physical and mental qualities of their ancestors but also their ideas and beliefs. "The current conception of a desirable citizen must therefore be a product of the past, slightly modified by the present; and the proposal is that past and present shall impose their conception on the future." As regards method, artificial attempts to form the character of citizens, violating as they do nature's method which is the spontaneous adaptation of citizens to social life, are bound to be ineffective. History shows that despite centuries of the teaching of Christianity by Church, priest and pious book, the world is still full of aggressiveness, revengefulness, mercilessness and hate. There is little reason for thinking that any attempt at moulding character by the State will be more successful.

The Individual Parent the Proper Educator.

The proper upbringing and education of children are considered by Spencer as falling under "The Ethics of Individual Life," (1892--Part III of"The Principles of Ethics"). Education is part of the individual parent's
responsibility and cannot be shouldered upon others without infringing the ethical code of Nature under its evolutionary aspect. Spencer looks forward to the time when intrusion into the parental sphere by the State or any other social agency will be resisted as a trespass on the rights of the individual parent. The general law of the prolongation of infancy which now involves a lengthy physical care of children will come to involve a long and careful psychical nurture of them; "and though the higher and more special educational functions will have to be discharged by proxy, yet the proxy-discharge will be under parental superintendence." Meantime, even if parents neglect their duty, Nature in her own stern way will apply the cure. The ill-nurtured offspring of such parents will succumb in the struggle for existence, and the race will be purged of much inferior stock. To think that the State can step in and assume what is properly parental duty is to ignore a fundamental law of Nature by which humanity has evolved thus far. Yet agitators and legislators have spread abroad a theory which leads to the "monstrous conclusion" that it is for parents to beget children and for society to take care of them; "that while each man, as parent, is not responsible for the mental culture of his own offspring, he is, as citizen, along with other citizens, responsible for the mental culture of all other men's offspring." Such an absurd theory would never have gained currency had statesmen spent their youth in a systematic study of descriptive
sociology rather than wasted their time in the writing of Latin verses or learning about the misbehaviour of the Greek gods.

Spencer's Life-long Hostility to National Education.

Later on we shall have occasion to examine critically this view of the relation of the State to education. For the present we may conclude by showing that, as was remarked in our first chapter, Spencer persisted in his attitude of hostility to the spread of national education right up to his death. When State education had reached a point in its development when it was taken for granted by thinkers of widely differing views on other social problems, Spencer remained unmoved. Writing in 1897 to W.A.S. Hewins, he says: "The whole scheme of public instruction, be it in Free Libraries or by State Education, is socialistic, and I am profoundly averse to socialism in every form;" and again in a communication to Dr. M. W. Keatinge of the same year, there occurs the passage: "If, as you apparently indicate, raising the status of teachers and giving them better pay implies increase of taxation, then you may judge how far I approve of it when I tell you that, from my earliest days down to the present time, I have been a persistent opponent of all State education." In the last year of his life -- almost in the last month -- Spencer gave expression to the same opinion. The times may have changed, other men may have been converted, but not Herbert Spencer: he remained to the last the most persistent of individualists.
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See also General Bibliography.
CHAPTER IV.

MORAL EDUCATION.

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Early Nineteenth Century Emphasis on Moral Education.

It was in *Social Statics* also that Spencer first tackled the specific problems of education. His approach was from the moral side. In the Chapter on "The Rights of Children", he defines the aim of education as "the formation of character." In thus regarding education, apart from the fact that moral training is necessarily concerned with the individual and therefore congenial to Spencer's general social outlook, he was merely following a tradition common to writers on education at the beginning of the nineteenth century. The French Revolution had produced a strong feeling that in the interests of national welfare, no less than in the individual's interest, a training in right behaviour was a first essential. While there was difference of opinion concerning the proper agent of education -- whether the State or the Church or voluntary enterprise ought to be responsible for the process -- there was general agreement that the education given ought to include a sound moral training. This view found expression not only among English writers, but also on the
Continent. In Germany the moral aim predominated in the thought of Fichte, Herbart, Hegel and Froebel alike, although they differed otherwise in their views of the nature of educative process; and in France the post-Revolution theorists, notably the St. Simonians, struck the same ethical note. In Britain, Owen, Spencer and Thomas Arnold of Rugby alike looked on education as a means of character formation.

"Social Statics" — Education a Passing Necessity.

Spencer's first criticism of the prevailing education (embodied in Chapter XVII of Social Statics) was thus a criticism from the moral point of view. In contending that children have equal rights with adults under the law of equal freedom, he proclaims a belief in the wrongness of the customary relationship between parents and children, based as it is upon coercion. The aim of education he defines in moral terms as the formation of character. Man, he thinks, is still imperfectly fitted for the social state into which multiplication of the race has forced him. His nature is still semi-savage, his impulses still resemble those which are serviceable in his original predatory state. That education should be necessary at all is due to the fact that evolution is still proceeding. Man's adaptation to his environment is still partial and incomplete. Hence children tend to develop wrongly, unless care is taken to exercise the social sentiments and to deny expression to the pre-social
impulses which are still present in the human mind. Ultimately, however, education will be unnecessary. Once "morality shall have become organic", the child's character will develop spontaneously into a form perfectly suited to the social state, and will produce the ideal man "whose every impulse coincides with the dictates of the moral law." "Education, therefore," says Spencer, "in so far as it seeks to form character, serves only a temporary purpose, and, like other institutions resulting from the non-adaptation of man to the social state, must in the end die out."

The Futility of Coercion.

Meantime children require to be trained in sympathy and self-control, two qualities which are essential for life in society. The uselessness of coercive education may be estimated in relation to that end, for apart from the fact that coercion is gradually being abandoned by educational reformers as inexpedient, it can be shown to be self-defeating. It is uneducative: deterrent and not reformative. The selfish child, aggressive and unsympathetic, who is compelled by force to cease making a noise or to stop monopolising his companion's toys, remains unaltered in character by the exercise of authority. His impulses are merely repressed for the time being. No step has been taken towards training him in habits of considerateness or self-control. Good qualities grow strong only by exercise. Just as the artist practises drawing, or the musician exercises himself at his instrument, or
the accountant submits himself to a thorough drilling in arithmetic, so the developing child needs to practise sympathy and drill himself in self-control. Coercion generates hate and fear, sentiments the opposite of those it is desired to foster. Parents must first establish sympathetic and affectionate relations with their children, and then they may go to work through the sentiments on the task of character formation. Coercion fits a child only for a slave state: it unfits him to live as a free man among free men. The most severely disciplined children are often the wildest of men, for the reason that they have had no training in self-government.

Difficulties in training will undoubtedly occur even under the best system. They are most often due, however, to the faults of the parents. In particular, the love of dominion by making parents strive for mastery rather than for the reform of their children's nature is the cause of the very defects which it is the purpose of education to eradicate. Selfish and unreasonable parents must expect to have selfish and unreasonable offspring. Occasionally, it is true, the best children will be unamenable to moral suasion, and coercion may need to be employed. "Nevertheless," says Spencer, "patience, self-denial, a sufficient insight into youthful emotions, and a due sympathy with them, added to a little ingenuity in the choice of means, will usually accomplish all that can be wished."
Second Thoughts: Education a Permanent Necessity.

The implication of this criticism of the ordinary methods of dealing with children is that in the ideal State, as a result of the operation of the process of evolution and of the law of the inheritance of acquired characteristics — in which Spencer, following Lamarck, firmly believed — children will in course of time be born capable of developing spontaneously into individuals perfectly adapted to their environment and qualified to enjoy complete freedom to exercise their faculties.

Later on, however, Spencer modified his view that education "must in the end die out." In the Principles of Sociology, he tells us that while the family will continue to exist, there will take place such a development in altruistic sentiment that parents, on the one hand, will manifest greater care for their children, and children, on the other hand, will in the latter days of life show greater filial care of their parents. Family education will then be so good that, together with "a spontaneous unfolding of the juvenile mind," no further education will be required, except the instruction needed for "special cultures" which will still have to be given by other teachers than the parents.

"Moral Education."

In approaching the problem of moral education in the essay with that title in the work on Education, Spencer has in view things as they are, rather than as they will be in the ideal State which is to be the end.
product of human evolution. The essay was written during the early part of 1858 and published in the British Quarterly in April of that year. Spencer had about a year before (in December, 1856) gone to live with a family in which there were several young children. He had profited by the opportunity thus presented of observing the treatment they received and their reactions towards it. This experience, he thinks, proved useful to him in writing his essay, on the general principle that by-standers often see most of the game.

Evolutionary Ethics.

The general thesis, which it is the purpose of the essay to establish, is that the proper system of moral discipline is the discipline of natural consequences. Evolution of all kinds has taken place through adaptation of structure and function to the needs of a changing environment. This adaptation has, in the case of man, been achieved "by the discipline of enjoying the pleasures and suffering the pains which followed this or that kind of conduct." The development of the moral and emotional nature of the individual must be effected by the same means. In the moral training of children, while there should be no needless restraints, the needful restraints should, like Nature's reactions, be unvarying and irresistible. The ultimate aim of this discipline is to produce a self-governing being, subject to no restraints except those imposed by the nature of things or the law of equal freedom.
80.

Education the Supreme Study.

The essay opens with a brief discussion designed to show the importance of a knowledge of the right method of bringing up children as a preparation for one of the most essential functions in life, that of parenthood. No subject is more neglected in ordinary systems of education; and yet "the subject which involves all other subjects, and therefore the subject in which education should culminate, is the Theory and Practice of Education."

Limitations of the Process.

Despite the supreme importance of education as an agency in human development, it must not be supposed that a perfect system of education will produce an ideal humanity. There are three obstacles. Children are not all born good: although they are not born evil in knowledge, they are born evil in impulse. In the second place, parents are themselves imperfect and cannot be expected to administer an ideal system of education. Finally, society is still imperfect. Despite these obstacles, enthusiasm for education is justified since it is one of the agencies which co-operate to bring about social reform by slow degrees.

Compensations for these Limitations.

No one need regret the fact that an ideal education is impossible while children, by the law of hereditary transmission of character, inherit the defects of their imperfect parents. The proximate aim of education being to prepare a child for the business of life, to produce
a citizen who, while he is well-conducted, is also able to make his way in the world, — that is, to engender a certain fitness for the world as it now is, — a perfect education would defeat its own end. Society is still far from ideal, and as with government, so with the family, the average character of the people determines the quality of the control exercised. But that does not imply that to reform the system now in vogue is neither practicable nor desirable. It merely implies that reform in domestic government must go on pari passu with other reforms. Those reforms will be hastened if we know where the right lies.

In the case of domestic government, an ideal must be set up in order that there may be gradual approximations to it. The constitutional conservatism of human nature is strong enough to prevent a too speedy approximation to this ideal in advance of similar reforms in other social institutions.

Hedonistic Ethics: Discipline by Natural Consequences.

To begin with it is necessary to establish a criterion by which to estimate the rightness or wrongness of any particular act of conduct. This Spencer proceeds to do in hedonistic terms. "All theories of morality agree 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." In bodily injuries and their penalties we have misconduct and its consequences.
reduced to their simplest forms, and such bodily conduct may be classed as right or wrong in precisely the same way as all other conduct, namely, according to the beneficial or detrimental results produced. "When a child falls, or runs its head against the table, it suffers pain, the remembrance of which tends to make it more careful; and by repetition of such experiences, it is eventually disciplined into proper guidance of its movements. If it lays hold of the fire-bars, thrusts its hand into a candle-flame, or spills boiling water on any part of its skin, the resulting burn or scald is a lesson not easily forgotten. .... Now in these cases, Nature illustrates to us in the simplest way, the true theory and practice of moral discipline."

The theory and practice of moral discipline, therefore, centre on the proper method of punishment; and Spencer's whole discussion is negative -- not how to promote good conduct but how to prevent bad. First of all physical transgressions are considered. Nature sees to it that physical "sins" bring about their own painful reactions. Those reactions, which we call punishments for want of a better word, are not artificial and unnecessary inflictions of pain: they are simply the beneficial checks to actions that are essentially at variance with bodily welfare. They are the unavoidable consequences of the deeds which they follow, the inevitable reactions entailed by the child's actions. As punishments, these natural consequences possess many
merits, which we now proceed to enumerate.

Advantages of Punishment by Natural
Consequences.

In the first place, Nature's reactions are pro-
portionate to the transgressions. A slight accident
brings a slight pain; a more serious one, a severe pain.
In the second place, the reactions are constant, direct,
unhesitating and not to be escaped. In all its dealings
with inorganic Nature a child finds an unswerving persist-
ence, which listens to no excuse and from which there is
no appeal; and very soon, recognising this stern though
beneficent persistence, it becomes very careful not to
transgress. In the third place, Nature's method has
the advantage of giving rise to right conceptions of
cause and effect, and of affording an insight into the
essential nature of good and evil conduct. Artificial
rewards and punishments, on the other hand, produce a
radically wrong moral standard by shielding the youth
from the natural reactions and substituting parental
or tutorial displeasure. A fourth advantage of this
natural discipline is that it is a discipline of pure
justice, and will be recognised as such by every child.

"Whoso suffers nothing more than the evil which in the
order of nature results from his own misbehaviour is
much less likely to think himself wrongly treated than
if he suffers an artificially inflicted evil; and this
will hold of children as of men." A fifth merit is
that the tempers of both parents and children are much
less liable to be ruffled under this system than under
the ordinary system. Finally, under this sort of discipline consequent on the last-named advantage, the relationship between parents and children, being more friendly, will be a more influential one. Anger in a parent towards a child, and in a child towards a parent, is exceedingly detrimental, because it weakens that bond of sympathy which is essential to beneficent control.

Application to Cases of More Serious Misconduct.

The discipline applicable to those physical transgressions constituting minor misbehaviour is applicable also to more serious cases of misconduct such as stealing or lying or ill-using younger brothers or sisters. For the proper treatment of these cases it is necessary, in the first place, to establish friendly relations between parent and child. This can best be done if the system of punishment by natural consequences has all along been carried out; for, as we have seen, this kind of discipline is not likely to cause resentment on the part of the child, or estrangement between child and parent, but rather is likely to generate a feeling of active friendship. On the existence of this friendly relationship depends the successful treatment of the graver offences. Such offences indeed are likely to be both less frequent and less grave under the regime we have described than under the ordinary regime. The bad behaviour of many children is itself a consequence of that chronic irritation in which they are kept by bad management.
Offences of the graver kind will nonetheless occur occasionally under the best system. What is to be done? Once again, Spencer answers, let the discipline of natural consequences be applied. But in those cases the problem is not so simple. The natural consequences are not so natural, although Spencer still professes to think them so. When a child is caught stealing, the "natural" consequences are, he says, of two kinds, direct and indirect. The direct consequence, as dictated by pure equity, is that of making restitution either by return of the object stolen, or, if it has been consumed, by giving an equivalent, which, in the case of a child, may be effected out of its pocket money. The indirect and more serious consequence is the grave displeasure of parents -- a consequence which inevitably follows among all peoples civilised enough to regard theft as a crime. The manifestation of strong parental displeasure will be potent for good, just in proportion to the warmth of the attachment existing between parent and child. The 'moral pain' experienced by the child consequent on having for the time being, lost so loved a friend as the parent, stands in place of the physical pain usually inflicted; and proves equally, if not more, efficient. Thus, Spencer concludes, the discipline of "natural" consequences is applicable to grave as well as trivial faults; and the practice of it conduces not simply to the repression, but to the eradication of such faults by checking the egotistic feelings and by bringing into
play the altruistic feelings which check criminal acts.

Objection: Is not Parental Disapprobation 'Natural'?

There is the objection to consider that parents, as it is, by venting their anger on their children in consequence of their misdeeds, are simply applying the natural reactions to cases of ill-conduct. Spencer answers the objection by pointing out that the prevalent form of discipline while relatively right is absolutely wrong. It is right in relation to the present state of society made up as it largely is of ill-controlled adults. "The barbarous children of barbarous parents are probably only to be restrained by the barbarous methods which such parents spontaneously employ . . . . Conversely, the civilized members of a civilized society will spontaneously manifest their displeasure in less violent ways . . . . Thus it is true that, in so far as the expression of parental feeling is concerned, the principle of the natural reaction is always more or less followed." But the expression of parental feeling does not constitute a good domestic discipline. In the first place, parents, out of regard for effete dogmas, often inflict punishments which are either too severe or too mild in the hope of immediate perfection. In the second place, "the discipline of chief value is not the experience of parental approbation or disapprobation; but it is the experience of those results which would ultimately flow from the conduct in the absence of parental opinion or interference. The truly
instructive and salutary consequences are not those inflicted by parents when they take upon themselves to be Nature's proxies; but they are those inflicted by Nature herself."

Some Illustrative Cases.

The difference between natural reactions and artificial reactions is illustrated by Spencer in four specific cases of childish misbehaviour.

Case I. If a child makes a litter, the usual consequence is that he receives a scolding while the parent or nurse collects the toys or shreds. The 'natural' consequence is that the child should be made to put the things in order himself. If he refuses, he should be denied the use of his playthings the next time he desires them. "This," says Spencer,"is obviously a natural consequence, neither increased nor lessened; and must be so recognised by a child."

Case II. If little Constance is habitually late for her daily walk, the 'natural' result is that of being left behind and losing the outing. This penalty would be far more effective than that perpetual scolding which ends only in producing callousness.

Case III. If a child breaks or loses an article given to him, the natural consequences are, first, the lack of the lost or damaged article and the resulting inconvenience, and, second, the expense of replacing it. Parents should not step in and take the penalty on themselves by replacing it; otherwise the child will miss a valuable lesson.
on the essential nature of good and bad conduct.

Case IV. If a boy, habitually reckless of his clothes, tears them in hedges or soils them in the mud, the 'natural' consequence is not being beaten and sent to bed, but being made to clean off the mud with which he has covered himself or to mend the tear as well as he can. If that does not serve, and if the suit is prematurely spoiled, the boy, having no decent clothes to go in, should be debarred from joining the rest of the family on holiday excursions or fête days. He will not fail to trace the chain of causation or to perceive that his own carelessness is the origin of it, without experiencing any feeling of injustice.

Natural Consequences Applicable throughout Youth and Adult Life.

This same type of moral discipline through the agency of natural consequences is not only applicable during childhood: it applies equally well throughout adult life. But in the latter period the transition which Spencer has already made from inorganic nature to human nature, -- that is, from natural consequence to social consequence, -- becomes still more clearly apparent. In adult life it is not physical pain but social disapproval that disciplines; "there comes into play a discipline like that by which the young child is trained to self-guidance." "If the youth entering on the business of life idles away his time and fulfils slowly or unskilfully the duties entrusted to him, there by-and-by follows the natural penalty: he is discharged and left to suffer for awhile the evils of a relative poverty. On the unpunctual man, ever missing his appointments of business or pleasure, there continually fall the consequent inconveniences,
losses and deprivations. The tradesman who charges too high a rate of profit loses his customers, and so is checked in his greediness. Diminishing practice teaches the inattentive doctor to bestow more trouble on his patients. The too credulous creditor and the over-sanguine speculator, alike learn by the difficulties which rashness entails on them, the necessity of being more cautious in their engagements. And so throughout the life of every citizen. In the quotation so often made a propos of such cases — "the burnt child dreads the fire" — we see not only that the analogy between this social discipline and Nature's early discipline of infants is universally recognized; but we also see an implied conviction that this discipline is of the most efficient kind."

Having thus satisfied himself that this "social discipline" of adult life is of essentially the same nature as the physical discipline of bodily misconduct in infancy, Spencer argues that the discipline of natural consequences will be equally beneficent throughout the intermediate period of youth. "As 'ministers and interpreters of nature' it is the function of parents to see that their children habitually experience the true consequences of their conduct -- the natural reactions; neither warding them off, nor intensifying them, nor putting artificial consequences in place of them."

Maxims deducible from Principles Enunciated.

Having thus stated the principles which should govern moral education, Spencer goes on to mention a few of the chief maxims or rules which he thinks are deducible from them.

The first is, Do not expect from a child any great amount of moral goodness. Children must recapitulate the barbarous stage of the race's development; and consequently they should not experience very urgent incite-
ments to good conduct lest a detrimental moral precocity be the result. The higher moral faculties like the higher intellectual ones are comparatively complex, and premature growth will be at the expense of ultimate development. Leave your child to suffer the discipline of natural consequences and save both his temper and your own.

The second rule is, Do not seek to behave as a passionless instrument altogether. Your own approbation or disapprobation is also a natural reaction; and while it should not be substituted for the other penalties which Nature has established, it should accompany them. In your show of feeling, however, avoid extremes. Do not scold and then forgive almost in the same breath; and yet, on the other hand, do not continue unduly to show estrangement of feeling, lest you accustom your child to do without your friendship, and so lose your influence over him.

Thirdly, Be sparing of commands, but whenever you do command, command with decision and consistency. The best rule in education as in politics is pas trop gouverner, and it is wise to rely not on coercion but on dispensing with the need of coercion. When a penalty is incurred, however, it should be like the penalties inflicted by inanimate Nature -- inevitable. If you, the parent, are equally consistent -- if the consequences which you tell your child will follow specified acts, follow with like uniformity, he will soon come to respect your laws as he does those of Nature.
The fourth maxim is, Remember that the aim of your discipline should be to produce a self-governing being; not to produce a being to be governed by others. Aim at diminishing parental government as fast as you can substitute for it in your child’s mind that self government which arises from a foresight of results. Let the history of your domestic rule typify, in little, the history of our political rule: at the outset, autocratic control, where control is really needful; by and by an incipient constitutionalism, in which the liberty of the subject gains some express recognition; successive extension of this liberty of the subject; gradually ending in parental abdication.

Fifthly, Do not regret the display of considerable self-will on the part of your children. That is a natural result of the diminished coercion so conspicuous in modern education. Both factors indicate an approach to the system of discipline here advocated, under which children will be more and more led to rule themselves by the experience of natural consequences; and both are accompaniments of our more advanced social state.

Lastly, Recollect always that to educate rightly is not a simple and easy thing, but a complex and extremely difficult thing -- the hardest task that devolves on adults. You will have habitually to consider what are the results which in adult life follow certain kinds of acts; and you must then devise methods by which parallel results shall be entailed on the parallel acts of your
children. You must analyse the motives of juvenile conduct and must more or less modify your method to suit the disposition of each child and to suit changing dispositions at advancing ages. You will have to carry on your own higher education at the same time as you are educating your children. Intellectually, you must study to good purpose that most complex of subjects -- human nature and its laws, as exhibited in your children, in yourself, and in the world. Morally you must keep in constant exercise your higher feelings and restrain your lower. The last stage in the mental development of each man and woman is to be reached only through a proper discharge of the parental duties.

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See also General Bibliography.
CHAPTER V.

WHAT KNOWLEDGE IS OF MOST WORTH?

The Appeal of Science to Individual Reason.
Science Ethically Justified as Fostering Economic Self-Sufficiency.
Literature and Arts promote mere Sociableness.
"What Knowledge is of Most Worth?"
The Criterion: Value as Preparation for Complete Living.
Different Kinds of Knowledge and their Applicability for Guidance or for Mental Discipline.
Science as Applicable to Life's Duties:
(a) Preserving Life and Health; (b) Earning a Livelihood; (c) Bringing up a Family;
(d) Intelligent Voting; (e) Employing Leisure Aright.
Science Provides both Intellectual and Moral Discipline.
The Religious Value of Science.
Manual Skill an Added Requirement.
Literature and the Arts as Amusements.
The Sciences versus The Classics.
CHAPTER V.

WHAT KNOWLEDGE IS OF MOST WORTH?

The essay which forms Chapter I of Spencer's Education: Intellectual, Moral, and Physical was the last of a series of four articles contributed to various quarterly Reviews between 1854 and 1859. Writing to his father on January 10th, 1859, Spencer says, "I have agreed with Chapman to do an article for him on the relative values of different kinds of knowledge. I have not fixed the title yet. But its chief aim is to go in for more science." The essay was published in the Westminster Review for July, 1859, under the title, "What Knowledge is of Most Worth?"

The Appeal of Science to Individual Reason.

As we have already seen, Spencer was very proud of having escaped the usual literary and classical education. He speaks of the lack of "culture in 'the humanities'" as part of his "negative equipment" for life; and thinks that "the absence of those studies, linguistic and historical, which form so large a part of the ordinary education," left him free from "the bias given by the
plexus of traditional ideas and sentiments." It is not surprising, therefore, that in an essay on the curriculum, Spencer should have exalted science as the knowledge of most worth and have belittled literary instruction. Science appeals to individual judgement: literature and language must be accepted as expressions of the social mind. "Linguistic culture," says Spencer, "is based on authority, and as I rebelled against it, the acceptance of things simply on authority was not habitual. On the other hand, the study of Mathematics (conspicuously Geometry and Mechanics), with which my youth was mainly occupied, appeals at each step in a demonstration, to private judgment, and in a sense recognises the right of private judgment."

Science Ethically Justified as Fostering Economic Self-sufficiency.

But there was another reason for preferring science to the humanities, and that reason appears most clearly, not in the essay immediately under consideration, but in a chapter entitled "Culture" in Part III of the Principles of Ethics ("The Ethics of Individual Life.") Although this later discussion was published in 1892, thirty-three years after "What Knowledge is of Most Worth?", there was little change in Spencer's views. Culture, we are told, means preparation for complete living, and complete living demands that the individual should possess the greatest efficiency in "self-sustentation and sustentation of family." For these purposes the best preparation is to
be had through a discipline in science. Complete living also, it is true, includes the fullest possible exercise of the faculties at large, so as to fit them "for utilizing those various sources of pleasure which Nature and Humanity supply to responsive minds;" and therefore complete living demands some commerce with the arts. But while self-preservation and the maintenance of family are "ethically enjoined," the pleasurable exercise of faculty involved in the appreciation of literature and the fine arts has merely an "ethical sanction." Peremptory obligation is not to be alleged concerning it. "Most of our pleasures are to be accepted as concomitants of those various expenditures of energy conducive to self-sustentation and sustentation of family; yet the pursuit of pleasure for pleasure's sake is to be sanctioned, and even enjoined, when primary duties have been fulfilled."

**Literature and the Arts Promote Mere Sociableness.**

The ultimate end of human development is the complete possible 'individuation': to that end man's social development is subsidiary. Hence "the egoistic motives for culture" come first, and these motives prompt one to seek such knowledge of the sciences as is useful for guidance, for increasing one's efficiency in earning a livelihood for self and family. The "altruistic motives" for culture are secondary and subsidiary. These arise from the desire to become a "pleasure-yielding person", which is a social duty. Literary culture, Spencer tells us, increases our social effectiveness: "in the absence of
It conversation is bald." Hence literary and aesthetic culture are to be pursued with a view to increasing our ability to gratify those around us, and enlarging our own capacity for pleasure. While those are legitimate uses, however, Spencer thinks that, as things are, aesthetic culture is carried to excess and involves a great waste of time.

"What knowledge is of Most Worth?"

To return to the essay on "What Knowledge is of Most Worth?". We find the main thesis to be that the teaching of science, being of far more practical value in life than language, literature and the fine arts, should displace the latter in the work of the school. Spencer, free from the "bias given by the established course of culture," and little influenced by the "authority of traditions and customs," desired to effect what he considered a long overdue reform and substitute the kind of education he had himself received from that which was still conventionally regarded as the best.

The essay sets out to find the answer to a question which Spencer had asked nine years before, namely, the question of how to determine the relative values of different kinds of knowledge. Education, it is assumed, is largely concerned with the imparting of knowledge; and if a better system is to displace the present unsatisfactory one, what is required is a standard by which to judge the comparative worths of the different knowledge subjects -- a desideratum not hitherto as much as
recognised, far less satisfied. As it is, fashion rather than utility determines the content of study. People are not satisfied with quietly unfolding their own individualities to the full in all directions, but are bent on acquiring, and having their children acquire, ornamental knowledge of merely conventional value, for the sake of impressing or subordinating others. In this respect education is but a reflex of current social ideas. Society is still partly militant in type, its chief feature being control by government of individuals. Conventional education, by the accomplishments and social prestige it confers, "aids in weaving that ramified network of restraints by which society is kept in order."

The Criterion: Value as Preparation for Complete Living.

In order to formulate a rational curriculum of studies, the first requisite is to determine the aim of education. This Spencer now defines as preparation for complete living, by which he means the completest possible exercise of faculty in a full life -- "a life which is high alike in respect of intensity, breadth, and length." Utility, in this sense, is therefore the criterion we are in search of. All are agreed that knowledge to be useful must have some bearing on life; but since every kind of information can

* Note: Rather a close parallel exists between Spencer and Claude Marcel in the expression of this idea of utility. Marcel ("On Language", I, p.77) says: "The various branches of knowledge have latterly been so multiplied that it is impossible for a single individual to embrace them all; and some sciences have been carried so far that it almost requires the exclusive exertion of a long life to reach their utmost extent:"
be shown to have a bearing on human affairs, it becomes necessary to classify in their true order of importance the activities which constitute 'complete living.' They may be divided 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 as their end the rearing and discipline of offspring; 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.

'One science only can one genius fit,  
So vast is art, so narrow human wit.'— Pope, Essay on Criticism

"However, if the immense variety of arts and sciences does not permit short-lived beings, such as we are, to possess them all, their admirable connection, by aiding the memory, furnishes us with an easy means of acquiring an extensive portion of them. We should principally aim at those which suit our particular station or profession in society, and at those also which are calculated efficiently to improve our faculties."  
Spencer says: (Education", p.8):  
"Had we time to master all subjects we need not be particular. To quote an old song:—

Could a man be secure  
That his days would endure  
As of old for a thousand long years,  
What things might he know!  
What deeds might he do!  
And all without worry or care.

'But we that have but span-long lives' must ever bear in mind our limited time for acquisition. And remembering how narrowly this time is limited, not only by the shortness of life, but also still more by the business of life, we ought to be especially solicitous to employ what time we have to the greatest advantage."  
(For further parallels, see Chapter XIII of the present work)
Those are the activities which constitute 'complete living,' and as thus stated they stand in their 'true order of subordination.' An adequate education must prepare for the satisfactory performance of all those activities; but while the ideal would be complete preparation for all, in practice it will be found necessary to maintain a due proportion between the degrees of preparation for each. The average man will find it most useful to have exhaustive training in the activities which constitute the greatest part of his life; which means, according to Spencer, those activities which find their centre in the individual, namely, direct self-preservation and the earning of a livelihood. In effect, Spencer has abandoned the idea that the aim of education is the unfolding of individuality to the full in all directions, for the aim of preparing the adult man for economic self-support and complete adaptation to his environment.

Different Kinds of Knowledge and their Applicability for Guidance or Mental Discipline.

This preparation is to be got through knowledge; and the problem comes to be that of selecting the most appropriate kinds of information for the purpose. Knowledge has three kinds of value, intrinsic, quasi-intrinsic and conventional. The truths of science are of intrinsic value, since they will bear on human conduct ten thousand years hence as they do now. Linguistic knowledge is of quasi-intrinsic value, since it is useful only as long as the language lasts. Historical information, as commonly imparted in school, is only of conventional value, since
it has no bearing on present day affairs, and serves merely to protect its possessor from the social disapproval its absence would entail. Knowledge, furthermore, may be valuable for the guidance it affords in life's duties, or for the discipline of faculty it confers. It follows that the most useful knowledge would be that of intrinsic value which, while affording men guidance in practical concerns, at the same time confers also a mental discipline.

Science as Applicable to Life's Duties.

What is that knowledge? The answer depends on the class of activity under consideration.

(a) Preserving Life and Health.

1. First in importance come the activities bearing directly on the preservation of life, bodily health and physical vigour. Fortunately for man, Nature to some extent sees to this herself. The child is endowed with instincts which prompt it to seek safety in flight when danger threatens; and it learns in a practical way, by immediate contact with the physical environment, knowledge of the greatest use to it for self-preservation and bodily development. All that is necessary at this stage is to prevent "stupid schoolmistresses" from hindering the spontaneous physical activities which children delight to indulge in.

In later life, however, more than this is needed. Physical sensations which ought to warn us are habitually neglected. Disease, ill-health and death are the conse-
sequences of ignorance of the laws of life. The adult requires to have some acquaintance with the principles of physiology as a means to complete living. Not that this information alone will guarantee healthy living, for inclination will often override prudence; but the right knowledge impressed in the right way will do much to secure right living; and knowledge of the laws of health is a prerequisite to their being fully conformed to. Thus some acquaintance with the science of physiology is an all-essential part of a rational education.

(b) Earning a Livelihood.

2. For indirect self-preservation or the earning of a livelihood, Science is again of paramount importance. Most men are directly or indirectly engaged in the production, preparation or distribution of commodities. For the efficient discharge of those occupations a knowledge of various sciences is indispensable: logic for the large producer or distributor; geometry for the carpenter, the bridge-builder, the surveyor, the architect, and even the farmer; mechanics for the engineer, the factory-owner, and the ship-builder; physics for the metal-worker, the miner, the optician, the mariner and the printer; chemistry for the dyer, the smelter, the sugar-, soap- or gunpowder-maker, the brewer and the cultivator; astronomy for the sailor; geology for the prospector and the speculator in mining shares; biology for all who have to do with agriculture or cattle-rearing; sociology for the investor, the merchant and the manufacturer. All alike need a know-
ledge, rational or empirical, of science in some form for the efficient discharge of activities bearing upon livelihood. Yet this is the knowledge which, for the sake of imparting dead formulas, schools systematically neglect to teach, leaving it to be picked up in nooks and corners as opportunity arises.

(c) Bringing up a Family.

3. While schools do to some extent prepare their pupils for earning a livelihood by teaching reading, writing and arithmetic, nowhere is any preparation given for the third class of life's activities, the rearing and discipline of children. Parents begin the difficult task of bringing up their offspring without having acquired any knowledge of the underlying sciences. For the correct physical training of children some knowledge of physiology is needed; for moral guidance an acquaintance with "Ethology," the science of character formation, is requisite; and for intellectual training, surely psychology can render indispensable aid. Parents should at least be familiar with the general principles underlying these three sciences, before they essay the responsible task of bringing up a family.

(d) Intelligent Voting.

4. The search for the right kind of knowledge to prepare a man for the proper discharge of his social and political functions leads Spencer to a denunciation of the kind of history which in his opinion was commonly taught in Schools. Instead of being made to learn the gossip about
kings and their matrimonial adventures, about court intrigues, plots, usurpations and the like, children ought to be introduced to the science of society. An acquaintance with *The Fifteen Decisive Battles of the World* will be of no help to anyone in regulating his conduct as a citizen. Instead, what he ought to know is the natural history of society: the evolution of government, political and historical; ceremonial and other customs; religious creeds and superstitions, industrial organization; intellectual, artistic and moral development. In short, the only history that is of practical value is Descriptive Sociology. But descriptive sociology is useless without keys by which to interpret it. Those keys are to be found in Science. Rightly to interpret social phenomena, and in order properly to apply the interpretation to every-day affairs, some knowledge of the generalisations of biology and psychology is required. Thus to prepare a man to act properly in his political and social capacity—to help him to vote intelligently—knowledge of Science is again essential.

(e) Employing Leisure Aright.

5. We come finally to the miscellaneous activities which occupy the leisure part of life, the enjoyment of Nature, of Literature and of the Fine Arts. Although placed last in order of importance, these pursuits are by no means to be neglected. "Without painting, sculpture, music, poetry, and the emotions produced by natural beauty of every kind, life would lose half its charm." But after all, those
enjoyments represent the efflorescence of civilization. They are made possible only by a due discharge of the preceding functions; and so in relative importance they rank after the other activities. In present-day schools the positions are reversed: the plant is neglected for the sake of the flower. Just as they occupy the leisure part of life, so should the fine arts occupy the leisure part of education.

But strange as it may seem at first consideration, Science is again essential not only for the production but also for the appreciation of Art. Granted that knowledge of science alone will not qualify a man to be a sculptor, painter, poet or musician -- the artist of every type is born not made --; yet without a knowledge of the sciences underlying his art no man can achieve the highest greatness. The greatest artists have always possessed, if not a systematic, at least an empirical knowledge of the facts of the science appropriate to their art; and in so far as their knowledge has been defective, their productions have shown resulting defects, here violations of mechanical principles in sculpture and there breaches of the laws of physics in painting. "Only when Genius is married to Science can the highest results be produced."

For the appreciation of the fine arts, no less than for their production, is Science essential. The adult has a fuller appreciation of a picture than a child, for the reason that he has a fuller acquaintance with the
truths which the picture portrays. Similarly for poetry, the wider the experience of the objects and actions expressed, the greater the pleasure. Thus to feel the highest gratification from a work of art, the spectator, the listener, or the reader must have the fullest knowledge of the realities which the artist has expressed.

Moreover Science is itself poetic: It cultivates the imagination and opens up realms of beauty unknown to and undreamed of by the unscientific person. Romance and beauty are to be found in geological strata, in sea-side pools, or in the high heavens by those who know where to look for them. It is better to try to understand the architecture of the heavens than to be interested in some contemptible controversy about the intrigues of Mary Queen of Scots.

Science Provides both Intellectual and Moral Discipline.

Having thus demonstrated that Science is of chiefest value for guidance, Spencer has next to consider what kind of knowledge is of most value as a mental discipline. The quest is short and easy. It would, he says, be utterly contrary to the beautiful economy of Nature, if one kind of culture were needed for the gaining of information and another kind were needed as a mental gymnastic. Science, of most value for guidance, is of most value also for mental discipline. As a means of training the memory, it is superior to language-learning, for the number of facts to be memorised in almost any science far exceeds the
number of words to be learned in any language. But that is not all. The kind of memory exercised in linguistic training is rote-memory, whereas science strengthens the rational memory. While the former exercises memory only, the latter exercises both memory and understanding. Science also cultivates the judgement. The student of a language is concerned largely with extending his acquaintance with words, whereas the science student is interested in causes and effects. As a result of his habit of drawing conclusions from data, and then of verifying those conclusions by observation and experiment, he strengthens his powers of judgement.

Science, again, is best for moral discipline as well as intellectual discipline. It makes a constant appeal to individual reason. Every conclusion is based on evidence which the pupil is always at liberty and is often required to test for himself. Hence a scientific training strengthens independence of character and makes for individual freedom of thought. On the other hand, the student of language must accept his facts on the authority of others -- teacher, dictionary-maker, or grammar-book writer. Language-learning, therefore, tends to increase the already undue respect for authority, and produces the servile and submissive, rather than the free and independent, character.

The Religious Value of Science.

To crown all, Science is essentially religious. So far from science and religion being antagonistic, it is
the neglect of science that is irreligious. How can anyone contemplate the Great Cause of the Universe without trying to understand its wonders? Science generates a belief in, and a great respect for, the uniformity of natural law. The student of science sees that these laws are both inexorable and beneficent; that all things work together towards a greater perfection and a higher happiness; and that progress is a law of nature. Science alone can give us true conceptions of ourselves and our relation to the mysteries of existence. It brings us face to face with the Absolute and the Unknowable. Only the genuine man of science can know how utterly beyond human conception is the Universal Power of which Nature and Life and Thought are manifestations.

Manual Skill an added Requirement.

To this comprehensive, if one-sided, programme of Science as the knowledge of most worth, Spencer, in his chapter on Culture as part of the Ethics of Individual Life, adds the requirement of manual skill. For those who are destined to undertake occupations in productive industry there can be no question of the great value of an adequate training in manipulative dexterity and keenness of perception. Schools either neglect this aspect of culture altogether, or leave it to be acquired through games, which do not cultivate the right kinds of skill. But even for persons who aim at higher careers than those which industry offers this sort of training is not negligible. Everyone must learn to adjust his movements to objects
and actions of his environment if he would avoid slight mishaps or serious accidents, or be able to rectify mischief so caused. Hence for all, preparation for complete living must include appropriate exercises of limbs and senses, not indeed of a formal kind, since "the shaping of all education into lessons is one of the vices of the times," but as embodied in the carrying out of practical projects which make direct appeal to the interest of the learner.

Literature and the Arts as Amusements.

Literature, too, is again allowed to have a place in the curriculum in this later expression of Spencer's educational creed, but complaint is made about its occupying too great a space on the school time-table. History, biography, fiction and poetry call forth mental exertion of an easy kind and yield a pleasurable excitement without much effort. Accordingly such subjects are more attractive to the majority than science, but they are not nearly so useful as "that knowledge of the order of things at large which serves for guidance." They have a place, but it is a secondary and subordinate place. They are necessary for the all-round development of the faculties, which is ethically sanctioned when once economic independence has been achieved, and they may be prosecuted from motives of benevolence, that is, to make one a 'pleasure-yielding' person to others. It turns out, however, that painting, sculpture, light literature, the drama and music are best classified under "Amusements." As relaxations they are
approved by hedonistic ethics; they have a physiological justification since the emotional satisfaction which they yield exalts the vital functions and raises the tide of life; and finally on evolutionary grounds they are sanctioned as forms of play by means of which faculties which have not been exhausted by daily activities are exercised. They are to be classed along with games, sports*, travel, exploration and other "superfluous activities which primarily yield self-happiness."

The Sciences versus The Classics.

Science remains the subject of most worth, and its pursuit that of highest ethical value to the individual. It above all is the subject which should displace the Classics in the esteem of educators, since it is the subject which throws light on the "adjustments or non-adjustments of actions to requirements," and gives knowledge of man's own "nature, bodily and mental, and of the world, physical and social, in which he has to live." "Had Greece and Rome never existed," we repeat Spencer's words, "human life and the right conduct of it would have

*Note: From a general condemnation of field sports as involving the direct infliction of pain on inferior creatures, Spencer partially exempts the sport of fishing on the ground of the remoteness of the victim from human beings and their feelings, and because the chief pleasure is that derived from the exercise of skill. Fishing was his own favourite sport!
been in their essentials exactly what they now are: survival or death, health or disease, prosperity or adversity, happiness or misery, would have been just in the same ways determined by the adjustments or non-adjustments of actions to requirements." The answer to the question of what knowledge is of most worth is therefore, and without possibility of doubt, SCIENCE.

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Art. I. -- What Knowledge is of Most Worth.
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See also General Bibliography.
CHAPTER VI.

INTELLECTUAL EDUCATION.

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CHAPTER VI.

INTELLECTUAL EDUCATION.

Introduction.

The chapter on Intellectual Education, first called "Method in Education," was eventually published in The North British Review for May, 1854, as "The Art of Education."

Spencer tells us that the subject had at the time a threefold interest for him. Some observations and experiments of his own seemed valuable enough to deserve publication; the topic of the essay had a very close connection with psychology, a subject then much occupying his mind; and mental development was, he saw, but one instance of the general principle of development which he had borrowed through Coleridge from Schelling. The intention was to treat Method in education from the psychological and developmental point of view.

It is characteristic, however, of Spencer's general mental habits, that two principles which appear in the essay as being derived from the general idea of mental development were really uppermost in Spencer's mind from the outset. These were the notions that education should be largely a process of self-instruction, and that it should as a consequence be pleasurable. Those, as we have
seen, were the guiding principles in his own education as directed by his father, and it is to his father that Spencer acknowledges his indebtedness for them. "There remained," he tells us, "but to justify them by affiliating them on the Method of Nature." The conclusions were present in his mind at the beginning, and biology and psychology were subsequently appealed to to provide them with an evolutionary setting.

Nature's Method.

What is the Method of Nature which is to serve as a pattern for Method in Education? It is the method by which Nature proceeds in physical and mental organisation from the simple to the complex, from the homogeneous to the heterogeneous, from the indefinite to the definite. Method in education must be a kind of objective counterpart to method in organisation. Just as evolution in general, and development of mind in particular, is a process from an indefinite, incoherent homogeneity to a definite coherent heterogeneity, so education must parallel that process in the method it adopts and the experiences it seeks to present to the developing minds of the pupils.

There is a physical analogy. Every organism is in its initial stages simple and ends by being relatively complex; the features of an unfolding germ are vague, while in the adult they become distinct; in simple organisms there is little differentiation (much homogeneity), while in higher animals there is much differentiation.
(great heterogeneity). Now the organisation of mind obeys the same laws as the organisation of body; and since education is a process which seeks to aid the organisation of mind, education must conform to the laws governing all organisation whether of matter or mind.

Spencer expresses this process of mental development in *First Principles* (originally published in 1862, the year after *Education*) as follows: "At first the intellectual functions are much alike in kind — recognitions and classifications of simple impressions alone go on; but in course of time these functions become multiform. Reasoning grows distinguishable, and eventually we have conscious induction and deduction; deliberate recollection and deliberate imagination are added to simple unguided association of ideas; more special modes of mental action, as those which result in mathematics, music, poetry, arise; and within each of these divisions the mental movements are ever being further differentiated. In definiteness it is the same. At first the infant makes its observations so inaccurately that it fails to distinguish individuals. The child errs continually in its spelling, its grammar, its arithmetic. The youth forms incorrect judgments on the affairs of life. Only with maturity comes that precise coordination of data which is implied by a good adjustment of thoughts to things. Lastly, with the integration by which simple mental acts are combined into complex mental acts, we see the like. In the nursery you cannot obtain continuous attention — there is inability to form a coherent series of impressions; and there is a parallel inability to unite many coexistent impressions, even of the same order: witness the way in which a child's remarks on a picture show that it attends only to the individual objects represented, and never to the picture as a whole. But advancing years bring the ability to understand an involved sentence, to follow long trains of reasoning, to hold in one mental grasp numerous concurrent circumstances."

One further guiding idea has still to be mentioned. Spencer adopted from Comte the proposition that the unfolding of the child's mind repeats the stages by which the mind of the race unfolded; and from this he deduces
the corollary that education should be a repetition of civilization in little. Along with this goes the belief in Lamarck's doctrine of the inheritance of acquired characteristics.

Plan of the Essay.

The essay itself is divided into two sections. The first deals with the science of education, and is concerned largely with a statement of the principles underlying mental development. The second treats of the art of education, and is devoted to an application of the foregoing principles. In confining his illustrations in this second section to sense-training, object-lessons, nature-study, drawing and geometry, Spencer disavows the intention of writing a detailed treatise on method in education. Those subjects are to be considered simply as illustrations of the method dictated by the general psychological principles previously specified. There is no mention of language-teaching, history, the humanities generally, or the "appreciation" subjects in the essay, save an exclamation against that 'intensely stupid' custom of teaching grammar to children. It is a significant omission. Literature and the humanities are based on the authority of tradition and cannot be divorced from their social setting. The sciences are more individual in their appeal and accord better with Spencer's social philosophy, based as it is on a code of individual natural rights.

Reforms of the Past Fifty Years.

The essay begins by observing that education re-
fleets the ideas current at any particular stage of social development. Corresponding to the development of the modern idea that government is an institution which should be allowed to grow from within, rather than be reformed from without, goes the belief that mental evolution is a natural growth which cannot be disturbed without injury to the process. The change of outlook has been one leading from uniformity to diversity in the educational methods employed, just as the tendency towards individuation has in the ecclesiastical sphere produced diversity of sects, and in the political sphere, a multiplicity of political parties. All these social changes are the result of one great urge towards the assertion of individual liberty. In the resulting diversity of educational methods lies the hope of finding the true method. Hence it becomes profitable to survey the changes which have taken place in educational method during the last fifty years, causing the abandonment of old practices and the adoption of new.

Of the modifications of old practices, the first has been a change from excessive preoccupation with intellectual development to a concern for bodily welfare as a prerequisite to sound mental culture. People are now beginning to realise with Emerson that the first requisite to success in life is to be a good animal. In the second place, learning by rote is giving place to rational learning, and more attention is being paid to meanings than to symbols. Thirdly, the teaching of
rules is being superseded by the teaching of principles. First come the particulars, then follows the generalization. It is this change that has prompted the abandonment of the practice of teaching grammar to children.

"As grammar was made after language, so ought it to be taught after language: an inference which all who recognise the relationship between the evolution of the race and that of the individual, will see to be unavoidable."

As regards the new practices introduced, first comes the attempt to train the powers of observation by means of well-conceived but ill-conducted system of object-lessons. This sense-training is based on an increasingly held belief that the spontaneous activity of the observing faculties of children in play has a meaning and use, and contributes material to the mind on which to build all other attainments, artistic, scientific or philosophical. In the second place, knowledge is increasingly being presented to the child in concrete form rather than in the abstract. This is exemplified in the use of the ball-frame in arithmetic, of actual weights and measures in mensuration, and of models in geography and geometry. It is being recognised that the child learns as the race has learnt; first by contemplating the truths of number, form and position as exemplified in concrete objects, and then by a process of abstraction. Finally attempts are now being made to render the acquisition of knowledge pleasurable rather than painful. It holds of mind as of body that the natural activities are pleasurable, and
that conversely pleasurable activities at each age are likely to be natural. Hence all instruction ought to aim at arousing a pleasurable excitement in the pupils.

The Merits and Defects of Pestalozzianism.

In thus showing increasing conformity to the methods of Nature, educational methods are but approximating to the doctrine long ago enunciated by Pestalozzi, "that alike in its order and its methods, education must conform to the natural process of mental evolution -- that there is a certain sequence in which the faculties spontaneously develop, and a certain kind of knowledge which each requires during its development; and that it is for us to ascertain this sequence and supply this knowledge."

But if education is to conform to the methods of Nature, does that not imply that any kind of interference with mental development is harmful and unnecessary? Is there not a spontaneous principle of growth in mind which will cause it to seek the experiences necessary for its development at each particular stage, so that intervention by a teacher is not required? No; these inferences are unjustifiable. Just as the most highly developed organisms are the longest time dependent on the parent organisms for nourishment and protection, so the mind of man, being the most complex of all minds, is long dependent on adult nurture and guidance. It is for the educator to maintain the conditions of proper mental growth. He must provide suitable content, present it by appropriate methods, and at fit times. Thus there is ample room
left for education to play its part without disturbing the normal process of mental evolution.

Having commended Pestalozzi's doctrine in theory, Spencer proceeds to criticise it in practice. Its exponents have lacked the philosophical insight of its founder, and accordingly they have failed to do justice to his principles. Pestalozzi had grasped the general idea that education ought to conform to mental development, but had failed to realise what the initial stages of mental evolution are. The result is that many of his methods are utterly unpestalozzian. Along with a belief that education must conform to Nature, must go a knowledge in detail of how the faculties of mind do unfold. In other words, a right method in education must be based upon an adequate psychology; a satisfactory art of education must await the development of a true science of education. This psychology is not yet established, but there are certain ascertained principles which approximate to the truth and on these method in education must be based.

Psychological Foundations of Educational Method.

The general principles of mental development are three in number.

1. The mind as it develops progresses, like all developing organisms, from the homogeneous to the heterogeneous. Accordingly the educative process, being the objective counterpart of this subjective process, must proceed from the simple to the complex alike in each
particular subject and in the curriculum as a whole.

2. The development of mind is an advance from the indefinite to the definite. Thus in education we should content ourselves at the start with setting crude notions before our pupils' minds and gradually making them clearer and clearer as experiences accrete.

3. The development of mind in the individual follows the development of mind in the race. Consequently the education of the child must agree both in method and arrangement with the education of mankind considered historically. If there has been an order in which the human race has mastered its various kinds of knowledge, as there has undoubtedly been, it follows as a result of the inheritance of acquired characteristics that there will arise in every child an aptitude to acquire these kinds of knowledge in the same order. Hence in deciding upon the right method in education, an enquiry into the course of civilisation will help to guide us.

The Educational Methods deducible from the Laws of Mental Development.

1. Lessons ought to start from the concrete and end in the abstract, to accord with the process of mental development from the homogeneous to the heterogeneous, from the simple to the complex. Abstract generalisations are simple only in comparison with the whole mass of concrete facts which they summarise. They are more complex than each of these facts separately. Hence the mind should be introduced to principles through the medium of examples, and so should be led from the particular to the
general, from the concrete to the abstract.

2. Each branch of instruction should proceed from the empirical to the rational. In the development of the race an art has invariably preceded the development of the corresponding science; and before knowledge can be organised, some of it must be possessed. Therefore every study should have a purely experimental introduction; grammar, for example, being placed, not before language, but after it.

3. In education the process of self-development should be encouraged to the uttermost. This maxim is based on the fact that humanity has progressed solely by self-instruction. If the subjects be put before him in right order and right form, any pupil of ordinary capacity will surmount his successive difficulties with but little assistance. He should be told as little as possible, and be induced to discover as much as possible for himself.

4. The right kind of instruction should create a pleasurable excitement in the pupils, in accordance with the principle that any mental activity which is natural to a child is also pleasurable. That is the proper test to apply to determine the suitability of any study at any particular stage. Unless interest is aroused, the subject is unsuitable. Educators ought to consider the child's 'intellectual instincts' rather than their own reasonings.

Advantages of the above Methods.

Method in education will therefore conform to the
laws of mental development previously enunciated in so far as it progresses from the simple to the complex, from the indefinite to the definite, from the concrete to the abstract, from the empirical to the rational; and satisfies the further requirements, that education shall be a repetition of civilisation in little, that it shall be as much as possible a process of self-instruction, and that it shall be pleasurable.

The last two requirements, if satisfied, justify the belief that the method adopted is conforming to the dictates of abstract psychology. If education can be made a process of self-instruction, it follows that the order of presentation will correspond to the successive stages in the evolution of the child’s faculties. Moreover, knowledge which is self-discovered makes a far more vivid impression on the mind than mere rote-learned knowledge. Again, self-acquired information is being actively organised in the mind, brought to bear on the solution of new problems, and thus turned into faculty as soon as it is taken in. The moral culture involved is also advantageous. Auto-education fosters courage in attacking difficulties, patient concentration of the attention, and perseverance through failure.

Similarly, the requirement that instruction shall be pleasurable has many advantages. It aids the memory and stimulates the attention. It reacts upon the temperament and health of the pupil. "No one can compare the faces and manners of two boys — the one made happy by mastering interesting subjects, and the other made
miserable by disgust with his studies, by consequent inability, by cold looks, by threats, by punishment—without seeing that the disposition of the one is being benefited and that of the other injured. Whoever has marked the effects of success and failure upon the mind, and the power of the mind over the body, will see that in the one case both temper and health are favourably affected, while in the other there is danger of permanent moroseness, of permanent timidity, and even of permanent constitutional depression."

Again when instruction is made a pleasure, it improves the relationship between teachers and pupils and consequently strengthens the influence of the former over the latter. Lastly it enhances the probability that education will not cease when school-days end but that pupils so taught will continue through life that process of self-instruction which they commenced in youth.

Application of the Foregoing Principles and Methods.

Passing now from the theory of education to the practice of it, we have to consider the course of instruction which psychology dictates.

(a) Sense Training.

Education, as Pestalozzi recognised, should begin from the cradle. The earliest exercises should take the form of a training of the senses. For this purpose the infant should be presented with a succession of objects offering markedly different degrees and kinds of resistance, and reflecting different amounts and qualities of light. He should hear also a variety of sounds widely contrasted in their loudness, their pitch and their timbre. Thus the senses of touch, sight and hearing will be trained in accordance with the general law of
evolution from the indefinite to the definite, by which the mind discriminates first of all between markedly contrasted sensations and subsequently proceeds to differentiate between more nearly allied impressions.

(b) Object Lessons.

A natural continuation of this primary culture of the senses is found in object lessons, not as commonly given, but as suggested by Nature's method. Teachers need only systematise the natural impulse which prompts children to discover the qualities of things for themselves. Mothers can encourage their children to find out the qualities of the surrounding objects so that, inspired by the joy of self-discovery and delight in the realisation of their own powers, they may proceed to ever more complicated observation, and ever-increasing nicety of discrimination. This course is the one best calculated to establish a habit of exhaustive observation, and is a natural continuance of that spontaneous process of self-evolution which was going on during the previous period.

(c) Nature Study.

Object lessons extend gradually into a more comprehensive nature-study. Beginning with the contents of the house, these studies extend into the garden, the fields, the hedges, the quarry and the sea-shore, and merge insensibly into the investigations of the naturalist and the man of science. Again we are but following Nature's guidance. "Where can be seen an intenser delight than that of children picking up new flowers and
watching new insects, or hoarding pebbles and shells." Later on children may be supplied with "the apparatus needful for keeping larvae of our common butterflies and moths through their transformations -- a practice which, as we can personally testify, yields the highest gratification; is continued with ardour for years; when joined with the formation of an entomological collection, adds immense interest to Saturday-afternoon rambles; and forms an admirable introduction to the study of physiology."

To the objections that such pursuits are useless as a preparation for the business of life and result in a waste of time and energy, the reply is that these objections imply very crude ideas of what constitutes education and very narrow conceptions of utility. "If men are to be mere cits, mere porers over ledgers, with no ideas beyond their trades, ..... then indeed it is needless to learn anything that does not directly help to replenish the till and fill the larder. But if there is a more worthy aim for us than to be drudges -- ..... if the pleasures which poetry and art and science and philosophy can bring are of any moment; then it is desirable that the instinctive inclination which every child shows to observe natural beauties and investigate natural phenomena should be encouraged."

But even on grounds of utility it can be shown that a knowledge of the laws of life, which underlie not only all bodily and mental processes, but by implication all the transactions of the house and street, all commerce, all politics, all morals, is more important than any other knowledge whatever, because, without it, neither personal nor social conduct can be rightly regulated.
The facts which the child learns for himself by observation of Nature will one day serve as material for "those great generalisations of science by which actions may be rightly guided."

(d) Drawing.

Drawing is another of the natural elements of education. From the earliest, children spontaneously delight in trying to render pictorially men, houses, trees and animals; and this tendency constitutes a further instructive exercise of the perceptions and a training of the powers of observation. These spontaneous efforts should serve as a guide to the teaching of this subject. The natural models are those real objects round which the child's pleasurable associations cluster -- human beings from whom it has received so many emotions; cows and dogs which interest by the many phenomena they present; houses that are hourly visible and strike by their size and contrast of parts. These should be depicted in colour, the drawing of outlines being kept secondary to colouring. Masters who begin with outline-drawing and drawing from the copy reverse the natural process. The object in teaching drawing is not to produce good drawing, but to develop the child's faculties, to give him some command over his fingers and some crude notion of likeness, and to exercise the powers of observation. Later on exactness can be insisted on and the laws of perspective taught experimentally.

(e) Geometry.

Nature's method in education can be further il-
Illustrated from the teaching of geometry. Definitions in the early stages should be eliminated. Instead the pupil should be familiarised with a stock of geometrical conceptions by being encouraged to handle and experiment with various solids; from which he may learn the meaning of points, straight lines, curved lines, parallel lines, angles, parallelograms, surfaces plane and curved, and their relations. Then he may proceed to the drawing of figures on paper, and the testing by eye of the correctness of their proportions. His knowledge may then be applied experimentally in the construction and decoration of cardboard toys and the like. From this experimental introduction advance may gradually be made to empirical geometry, that is, geometry dealing with methodical solutions, but not with the demonstrations of them. The pupil should be left to find out these solutions for himself, and should not as a rule be told the answers.

After some years of study of this empirical kind, a transition may finally be made to rational geometry as found in Euclid, which ought to present no difficulty to pupils who have stored their minds with geometrical facts, and who have learned to solve practically problems which they now learn to solve theoretically with logical demonstrations. They may even progress to the making of original demonstrations; and this process of self-discovery will constitute not only an intellectual but also a moral discipline. Such a study of geometry follows the method of Nature, for in the early civilisation of
the child, as in the early civilisation of the race, science is valued only as ministering to art; and the proper preliminary to geometry is therefore a long practice in those constructive processes which geometry will facilitate.

Conclusion.

These five subjects are chosen by Spencer to illustrate the methods in education which 'psychology dictates. They are to be regarded as examples only. To have extended them further would have been to write a detailed treatise on education, an intention which Spencer disclaims. The methods he has illustrated have, he claims, followed wholly, as most modern improvements in education have followed partially, the natural system, conforming to the psychological principles previously expounded and following the suggestions which the unfolding mind itself gives. In these respects the method here exemplified is a very close approximation to the natural method.

Intellectual education, then, is to be based on the laws of mental development; and its methods are to follow psychological principles, which will ensure that they are in conformity with Nature. If no mention is made of the humanistic subjects, the implication is that limits of space make it necessary to leave it to the teacher to make the requisite application of the general principles enunciated to the teaching of literature, history and the fine arts. We shall have to consider later, however, whether the humanities are capable of being taught on
Spencer's method; and whether the implied reason for omitting to discuss them in the Essay was the real reason; or whether they were left out because of Spencer's distrust of traditional knowledge and his inability to fit them into his natural system.

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See also General Bibliography.
CHAPTER VII.

PHYSICAL EDUCATION.

Conformity to Nature the Keynote.
Food.
Clothing
Exercise.
Over-Study.
Conclusion.
CHAPTER VII.

PHYSICAL EDUCATION.

The essay on Physical Education was written in 1858 for the Quarterly Review but was not published there because, as we are told, its anti-ascetic conceptions did not accord either with the editor's theological views or with the ideas with which his public-school life had imbued him. Instead, it appeared first in the British Quarterly Review for April, 1859, and was subsequently republished along with the other three, in 1861, in Education: Intellectual, Moral, and Physical.

Conformity to Nature the Keynote.

The key-note of the essay is conformity to Nature. For bodily welfare the most trustworthy guide is natural instinct, regard for the sensations as the "physical conscience." With the young of man, as with the young of animals, the period of growth and development must be a period of shielding from stress and strain, physical or mental, a period when much must be given and little demanded. The claims of the body must be satisfied before care is expended on the development of the mind. Premature mental development is at the expense of bodily growth; and early life should be so regulated as to favour development of the body and postpone any great...
tinuous mental effort to a later age.

In the essay an attempt is made to expose the bad effects of under-feeding, scanty clothing, under-exercise and over-pressure in education; and to apply the established truths of physiology to the proper nurture of children at home and at school. Spencer begins by contrasting the almost universal interest displayed by men in the rearing of animals of one kind or another, from the pigs of Hodge and Giles to the squire's hunters, with their lack of interest in the upbringing of their children. The latter is left almost entirely in the hands of the women, and the women lack any preparation for this important duty. "Mammas who have been taught little but languages, music, and accomplishments, aided by nurses full of antiquated prejudices, are held competent regulators of the food, clothing, and exercise of children." And yet the matter is of national importance. Alike in war, in commerce, and in the competition of modern life in general, the first requisite to success is to be a good animal; and to be a nation of good animals is the first condition of national prosperity.

Food.

Applying the "law" of the universality of rhythm, newly hit upon, to domestic habits, Spencer finds that in matters of dietary there has been a swing of the pendulum away from excessive indulgence in food and drink towards excessive abstemiousness. There is now a decided leaning towards underfeeding rather than overfeeding of children,
although parents sometimes conveniently refrain from applying the food restrictions to themselves.

As regards quantity of food, appetite is the best guide. Children rarely overeat, unless they have been accustomed to unnecessary restrictions. Their liking for sugar is especially sound, since physiologists have discovered that sugar plays an important part in the vital processes by generating muscular energy and heat. Ripe fruit is also beneficial, since the vegetable acids act as tonics and laxatives. Children's instinctive appetite for fruit of all kinds is therefore sound and should not be denied gratification. Nature is the best guide.

Not only should food be abundant in quantity, it should also be rich in quality. Children should have a more nutritive diet than adults, because, in addition to repair of muscular tissue used up by their greater expenditure of physical energy, they have, unlike adults, to make provision for bodily growth. It is not enough to give an increased amount of a "low diet," because the greater work the digestion of it entails diminishes the energy left for growth and action. Thus an exclusively vegetable diet is productive of diminished energy. The sheep is less active than the dog; the peasant boy is greatly inferior in mental and physical vivacity to the son of a gentleman; and the history of the world shows in general that the well-fed races have been the energetic and dominant races. Abstinence from meat, as Spencer himself found after a six-months' experiment, entails diminished energy of both body and mind.
Food abundant in quantity and sufficiently rich in quality should also be varied in nature. Physiology has clearly shown that no one food, however good, supplies in due proportion or in the proper forms all the elements required for carrying on the vital processes in a normal manner. Thus both a periodical change of food and a variety of food at every meal are advisable.

Clothing.

In clothing the same ascetic tendency shows itself in an undue scantiness, in the interests of a hardening process, in spite of the fact that not a few children have been hardened out of the world. Sensation is again the trustworthy guide. Clothing should be adequate in amount to prevent an abiding sensation of cold no matter how slight. Insufficient clothing may produce hardness in a person of strong constitution, but it does so at the expense of growth. In order to preserve the bodily heat there is a using up of food substances which would otherwise be available for building up the frame. Clothing is merely an equivalent for a certain amount of food; and as children lose more heat relatively than adults owing to their greater surface area relative to bulk, they need not less but more clothing than adults.

Not only is scantiness of covering harmful; frequently the style of dress is detrimental to physical well-being by preventing healthful activity. Unsuitable colours and fabrics having been chosen, children are interdicted from unrestrained play in order that they
may not soil or tear their clothes. "We do not hesitate," declares Spencer, "to say that, through enfeebled health, defective energies, and consequent non-success in life, thousands are annually doomed to unhappiness by this unscrupulous regard for appearances: even when they are not, by early death, literally sacrificed to the Moloch of maternal vanity." Instead of flimsy cotton, linen, or mixed fabrics, clothing should be made of some good non-conductor such as coarse woollen cloth; and its strength and colour should be such as will not suffer soon from use and exposure.

Exercise.

Girls suffer from lack of proper physical exercise more than boys. Their constitution is not so unlike their brothers' as not to need the same health-giving exercise. They have the same promptings to active play as boys; but the fashion among schoolmistresses is to regard rude health and abundant vigour as unladylike and vulgar. Girls suffer in two ways: in physique and in their chances of matrimony. Men are more attracted by rosy cheeks and sparkling eyes than by profound erudition. It is in the interests of the race that it should be so. "A cultivated intelligence based on a bad physique is of little worth, since its descendants will die out in a generation or two: and conversely. . . a good physique, however poor the accompanying mental endowments, is worth preserving, because, throughout future generations, the mental endowments may be indef-
initely developed."

A formal system of gymnastics, though better than nothing, is no substitute for spontaneous, unrestrained play.* Gymnastic exercises, being less varied than youthful sports, do not secure so equable a distribution of action to all parts of the body and thus produce fatigue sooner. Again, formal exercise will tend to be deficient owing to lack of interest. Above all, the quality of the exercise is inferior. "The extreme interest felt by children in their games, and the riotous glee with which they carry on their rougher frolics, are of as much importance as the accompanying exertion. And as not supplying these mental stimuli, gymnastics must be radically defective."

Over-Study.

Compared with past generations, the present generation gives signs of being undeveloped in height and bulk. Why? The reason is probably manifold. Under-feeding, under-clothing and under-exercise all contribute to produce physical deterioration. But perhaps the most potent reason has been excess of mental application. Modern conditions, owing to the intenser competition which marks business and professional life, impose an increasingly greater strain on parents and children alike. In the case of the parents

* Note: Spencer shares with Schiller the credit of having enunciated the "surplus energy" theory of Play. See "Principles of Psychology," Vol. II, Sections 533-540.
their constitution is weakened by harder work and fewer relaxations, and this weakened constitution is bequeathed to their children, who have thus to face a severer struggle with a weakened power of resistance. In order the better to prepare them for the competition of life, they are required to submit to a much harder mental discipline. The result is seen in the number of instances of debility produced by over-study, a debility which tends to become hereditary. Even training colleges for teachers, which express the ideas of the educated, are great sinners in respect of the excessive amount of time given to mental work and the deficiency of time allowed for physical exercise and recreation. The reasons which make most persons agree that infant precocity is detrimental to ultimate development, appear not to influence them when over-stimulation of youth is in question. Yet just as a forced development of intelligence in childhood entails either physical feebleness, or ultimate stupidity, or early death, so throughout youth the same truth holds. "There is a given order in which, and a given rate at which, the faculties unfold. If the course of education conforms itself to that order and rate, well. If not—if the higher faculties are early taxed by presenting an order of knowledge more complex and abstract than can be readily assimilated; or if, by excess of culture, the intellect in general is developed to a degree beyond that which is natural to its age; the abnormal advantage gained will inevitably be accompanied by some equivalent,
or more than equivalent, evil."

The amount of vital energy which the body at any moment possesses is limited. If an excessive amount of it is used up in brain work, there must occur a corresponding deficiency in bodily growth. If the excess of brain-work is moderate, there will be a correspondingly slight decrease in ultimate height or bulk or deterioration in quality of tissue. If the brain is prematurely exercised to a greater degree, the result may be prejudicial to the full growth of the brain itself. This is in accordance with the well-known law, first pointed out by St. Hilaire, that there is an antagonism between growth and development, that is, between increase of size and increase of structure. For example, a girl develops more rapidly in body and mind than a boy, and her growth stops correspondingly earlier. The same law holds in respect of one part of the organism as compared with the rest. If the brain is prematurely stimulated, its development will be at the expense of ultimate growth, thus accounting for the fact that precocious children often stop short and disappoint the high hopes of their parents.

More disastrous are the effects of over-education on the health, resulting in undermined constitution, enfeebled energies and morbid feelings. The brain has immense influence over the functions of the body -- digestion, circulation, bodily metabolism in general -- and if over-stimulated there is a resulting disturbance of physiological processes. Yet success in life depends
more on energy than on information.

Even from the point of view of the acquirement of knowledge, excessive study is a mistake. The mind can assimilate only at a certain rate. If facts are supplied at a greater rate, they do not pass into faculty, but are rejected. At the same time study is bound to become distasteful because of the painful results of over-pressure, and as a consequence subsequent self-culture, instead of being fostered, is made less likely. Then too, acquisition of knowledge is not everything: organisation of knowledge is more important, and that demands time for spontaneous thinking.

Conclusion.

Over-pressure in education is the result of a passing phase of civilization. In primitive times when society was militant, the civic virtues were bodily strength and courage. Education was almost wholly physical. Now that society is peaceful, and social success of nearly every kind depends very much on mental power, education has become almost exclusively mental. Both attitudes are extreme; they must be combined. The physical underlies the mental, and the mental must not be developed at the expense of the physical. Adequate care for the body may be expected to be observed in proportion as the belief becomes current that the preservation of health is a duty. Few men are aware that there is such a thing as physical morality. "The fact is, that all breaches of the laws of health are physical sins. When this is
generally seen, then, and perhaps not till then, will the physical training of the young receive the attention it deserves."

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See also General Bibliography.
PART II -- CRITICAL.
CHAPTER VIII.

THE INDIVIDUAL AND SOCIETY.

Introduction.
The Development of Spencer's Social Philosophy.
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CHAPTER VIII.

INDIVIDUAL AND SOCIETY.

Introduction.

The key alike to the educational and to the political philosophy of Spencer is to be found in his conception of the nature of the relation between the individual and society. Accordingly, some account of his social philosophy is an indispensable preliminary to a discussion of his educational doctrine. Spencer's social philosophy may be said to have begun and ended with a preconceived belief in individual rights. Despite his protests that society is to be regarded as a growth and not an artefact, the individual is for him the fundamental unit in the social "aggregate". But the individual with whom Spencer begins is an isolated being who has no social ties and is therefore abstract and non-human, "a mere abstraction, a logical ghost, a metaphysical spectre". Although he did more than any other writer of his time to popularise the notion of the social 'organism', he himself never
really allows the conception to influence his thought. On the analogy of the organism, it might have been expected that Spencer would have regarded the social whole as greater than the units which constitute it, and have found in it a unity of differences, an integration of individual purposes in a greater purpose. But owing to his ingrained individualism he never gets beyond the parts. Society remains an aggregate of individuals, and is to be understood only by studying the individuals who compose it.

The Development of Spencer's Social Philosophy.

The social philosophy is developed mainly in the following works: Social Statics (1850), The Social Organisation (1860), Specialised Administration (1871), The Principles of Sociology, Vol. 1 (1876), and The Man versus the State (1884); and although the Essays on Education were written in the interval between the appearance of the first and second of these writings, all five works are important as a background to Spencer's views of the nature of education. The reason for this is that with Spencer, more perhaps than with most thinkers, mental development came to an end quickly, and his early views influenced all his later thinking. It will therefore be expedient to consider briefly the successive views expressed in these five works, before examination is made of their influence on his educational doctrine.
The Nature of Individuality.

Social Statics, although it contains Spencer's early views on the relation of the individual to society, continued to represent his fundamental ideas to the end. The book begins in characteristic fashion by laying down the method to be adopted in the enquiry. "There is no way of coming at a true theory of society," Spencer tells us, "but by enquiring into the nature of its component individuals." This is indeed a promising beginning, and might well serve as a guiding principle in social enquiry, if taken in conjunction with its converse, namely, that there is no way of coming at an understanding of the individual but by enquiring into the nature of society. Spencer, however, fails to apply the converse. The nature of society does not arise out of the "accident of combination" (p.28), but is a consequence of "certain inherent properties of the beings themselves" who compose it. In other words, society does not add anything to human nature; it merely emphasises qualities which are present in the individual apart from society. The individual is thus pre-social. Individual welfare rests not on any law "presupposing a state of aggregation", but on some attribute of the "social atom", man.

This attribute is the "Moral Sense" which Spencer, following Adam Smith, postulates as a primitive constituent of human nature. It comprises appetition, intuition and emotion. It prompts us to act rightly to
one another; it shows us how to act thus; and it affords us a feeling of satisfaction at so acting. Starting from this assumed moral sense, we may deduce a systematic doctrine of morality. But before we can do so, we have to determine the end for individual man. Man's chief end, as willed by the Creator, is happiness. This happiness, however, is ultimate happiness, not immediate happiness. Ultimate happiness is attained when there is perfect adaptation between man and his environment. Hence it follows that "absolute ethics" takes no account of imperfectly adapted man, that is, of man as he is, in his present crooked state, but deals with the straight man as he will be, by virtue of a universal law of progress (p.78), which, by necessitating a continual adjustment of faculties to their environment, will bring about a state of perfect equilibrium.

Before we can establish the first principle of this absolute ethics, we must further determine the conditions in which man must live. First and foremost there is the social state. Spencer, while admitting that the social state "is needful for the support of the greatest sum of life", departs from his previous resolve to discover the nature of society by examining the "Inherent properties" of its members. All he can say is that "in the preordained course of things, men have multiplied until they are constrained to live more or less in presence of each other", and that, since we
find this state established and likely to continue, we must examine how it conditions the life of its members.

Even if this failure to give any adequate account of the origin of society be overlooked, Spencer has still a chance to show how society reacts upon and modifies its members, and how the latter may find their nature completed in and through social institutions. But it is manifest that he lacks any true insight into the nature of society. He starts with the individual man and never gets beyond him. Individual happiness is the end. Individual happiness consists in the completest possible exercise of faculty; and to this the social state makes a mere negative contribution, by necessitating a limitation of the exercise of faculty in order to secure that no one individual limits the right of any other individual to exercise his faculties.

If we ask what right the individual has to exercise of faculty, Spencer's answer (converted in his later works from theological into biological terms) is that God has willed human happiness, and happiness consists in the exercise of faculty. But since each member of society has faculties, we can readily understand the need for some limitation to their exercise. Hence social happiness depends on the individual's readiness to limit his freedom in such a way as not to infringe the freedom of others to exercise their faculties.

Social Morality has therefore as its first principle
the law of equal freedom: "Every man has freedom to do all that he wills, provided he infringes not the equal freedom of any other man".

This is the primary limitation to be put upon the individual's absolute freedom; and, in effect, it turns out to be the sole one. For if society establishes any secondary limitations, they will inevitably constitute a breach of the first. This comes to mean that if the State (by which Spencer means the government) attempts anything in the nature of positive regulation or adjustment, it violates the law of equal freedom; for some men (members of the government) must necessarily claim a greater amount of freedom, by enforcing restrictions, than other men (the governed) have if they are compelled to accept these restrictions (p.106).

As we have just seen, this claim to equal freedom rests upon an assumed innate moral sense. Man has what Spencer terms an instinct of personal rights, "a feeling that leads him to claim as great a share of natural privilege as is claimed by others." This feeling is natural in the sense of being innate and pre-social, and hence this instinctive craving for liberty gives rise to man's natural rights. These natural rights, which are "merely arbitrary subdivisions of the general liberty to exercise the faculties", when they come to be universally recognised in the perfect society, will enable men to fulfil the universal law
of life, namely, the development of the completest possible individuation. Mankind will then live in a "state of no government", a final anarchy. That will be a state in which every desire will be satisfied and man will do "just what he would spontaneously do", and be "that which he naturally is". Society (if indeed it can be called society) will be so organised that "the individual is everything and the state nothing."

Borrowing from Coleridge (who derived it from Schelling) "the true idea of life", which is the tendency to individuation, Spencer shows how this tendency is manifested throughout the animal kingdom, the lowest animals having little individuality and the highest, man, the most marked individuality. Human progress is towards a greater and more universal adherence to the moral law, the law of equal freedom, under which individuation becomes perfect, and all governmental restraints and individual aggressions cease, so that "in the ultimate man perfect morality, perfect individuation, and perfect life will be simultaneously realised."

The Nature of Society.

So far Spencer has concerned himself with the individual who, by pressure of numbers, has found himself compelled to live more or less "in presence of" other men. It now falls to him to consider society -- a condition which, having come about, is likely to continue. Starting from the individual with his
natural rights, Spencer finds that society, as re-
presented in the State, can be thought of best as a
joint stock protection company -- "men voluntarily
associated for mutual protection". The State as an
organ of society has, like every organ, but one function.
That function consists in protecting the liberty of its
members -- enforcing contracts and warding off foreign
aggression. "So long as our joint-stock protection
society confines itself to guaranteeing the rights of
its members it is pretty certain to be coextensive with
the nation". If it tries to do anything else, it in-
evitably infringes the moral law, the law of equal free-
dom. Hence the State, which Spencer regards as equiva-
 lent to the nation, has a purely negative function; and,
as we have seen, the greater part of Social Statics is
occupied with a discussion of the things the State ought
not to do.

Society as an Organism.

That is the position to which Spencer's preoccup-
ation with the individual has brought him. It is one
of extreme individualism. But towards the end of
Social Statics, he comes to consider society from the
point of view of its ultimate form, the fully-evolved
condition of ideal, divinely ordained, static repose.
Here the conception of society as an organism makes its
first appearance. "So completely", says Spencer, "is
society organised upon the same system as an individual
being, that we may almost say that there is something
more than an analogy between them". On the strength of this "something more than an analogy", he is led to insist that complete individuation coexists with complete mutual dependence. No one can break the law of equal freedom without the breach recoiling on his own head. As the development of society proceeds, "the welfare of each is daily more involved in the welfare of all", and all men's business is each man's business. Thus we arrive at the "salutary truth that no one can be perfectly free till all are free; no one can be perfectly moral till all are moral; no one can be perfectly happy till all are happy".

It is obvious that between the view of society as 'a joint-stock protection company' in the interests of individual liberty, and the view of society as an organism in which the individual members exhibit extreme mutual dependence, there is a marked inconsistency, an inconsistency which is the result of the failure of the two strands in Spencer's thought to come together. His early belief in individual rights, which prevented him from reaching any adequate view of the nature of society and hence from appreciating what individuality means, will not allow him to make full and profitable use of the analogy which his biological thinking had suggested to him.

How near Spencer came to a realisation of social purpose is shown in a passage at the end of Social Statics, where he endeavours to illustrate the paradox that the
progress of humanity (he always assumes progress to be a universal law) is "at once towards complete separate
ness and complete union", and takes as an example the reproductive and parental instincts. If individual man had no relations with other beings, those instincts and the domestic affections to which they give rise would be denied scope for their expression. Hence life would be incomplete; the faculties would be prevented from exercising themselves; and individuality would be shorn of its fair proportions. Consequently the perfection of the individual depends upon his relationship with other individuals; or, in other words, society is a necessity. If society is necessary to enable man to realise his sexual nature, it would seem to be no less essential to enable him to realise his nature otherwise. And from this to a realisation that it is society that helps to create man's nature seems a short step. But Spencer, beginning with the individual and his faculties, fails to take it. Individuality is something apart from the fact of the social state and merely "finds in each social arrangement a condition answering to some faculty in itself," but not really necessary for the expression of that faculty. "The ultimate man will be one whose private requirements coincide with public ones. He will be that manner of man, who, in spontaneously fulfilling his own nature, incidentally performs the functions of a social unit; and yet is only enabled so to fulfil own nature by all others doing the like". Society adds no-
thing to a man's stature, but is merely an external condition of his realising a predetermined nature, which needs only the presence of other individuals to find its expression.

**Further Development of the Analogy of the Organism.**

In the decade which elapsed between the appearance of *Social Statics* and the essay on *The Social Organism*, Spencer had further developed the biological view of society. *The Social Organism* opens with a criticism of the popular notion that society is a manufacture and not a growth. Spencer is anxious to show that social organisation is made neither by "the hero as king" (a hit at Carlyle) nor by legislative enactment, but is a result of 'general natural causes'. The natural process of social development may best be explained by comparing it, not indeed to the development of the human body in particular, but to the development of individual organisms in general. And this comparison it is the main business of the essay to make. The analogy is illustrated with a wealth of detail; but in general, there are four resemblances and four differences between the social organisation and individual organisms. Societies resemble individual organisms in that they grow from small aggregates to large aggregates; develop in structure from simple to complex, from little specialisation of function to great specialisation; change from a state of mutual independence of parts to a condition of mutual dependence of parts; and survive the death of component units. Societies
differ from individual organisms in that they have no specific external form; in that the living elements of a society do not form a continuous mass, but are dispersed over some portion of the earth's surface; in that the elements of the social aggregate are not fixed but are capable of moving from place to place; and -- most important difference of all -- in that all the members of a society are endowed with feeling, while in the body of an animal only a special tissue is endowed with feeling. As we shall see, Spencer makes much of this last distinction in the Principles of Sociology. Here he contents himself with pointing out this difference as the reason why the corporate life must be subservient to the lives of the parts, instead of the lives of the parts being subservient to the corporate life; or, in other words, why the individual with his natural rights must take precedence over society with its civic claims.

Towards the end of the essay, however, Spencer develops the analogy in a way which runs counter to his original intention when he began it. There are, he says, certain tissues in living organisms which have their counterpart in society. The blood of a living body, bringing nutriment to the different organs, is comparable to the circulating mass of commodities in the body politic. The circulatory system of arteries and veins which is perfected in the higher organisms is matched in advanced societies by a developed railway
system with its double lines conveying currents of commodities in opposite directions. Finally the nervo-motor systems, which become specialised in higher organisms, are represented in advanced societies like our own by a deliberative Parliament and its Executive. The brain in the higher animals has as its function to interpret and combine the many stimuli conveyed to it from all parts of the body and to harmonise the resulting motor responses in the interest of the whole organism. So in the most advanced societies, Parliament has to interpret and combine the wishes and complaints of all classes and localities and to regulate public affairs as much as possible in harmony with the general wants. "We may," says Spencer, "describe the office of a Parliament as that of averaging the interests of the various classes in a community; and a good Parliament is one in which the parties answering to these respective interests concede to each class as much as consists with the claims of the rest."

This admission would appear to justify the critic in regarding Parliament, an institution representing the community as a whole, as having the right to exercise control over the community. Spencer would thus seem to imply that society like the individual organism, has its own appropriate nerve-centre charged with the function of co-ordinating its various activities and adjusting the claims of the various parts in the interests of the general welfare. This would very much enlarge the duty of the State towards its members and would give a positive interpretation to the right of the State to inter-
fere with the liberty of the individual. It would even appear to open the way for a justification of a form of State socialism.

Modification of the Organism Analogy.

The seeming inconsistency was taken up by Huxley in an article on Administrative Nihilism, in which he points out that the real force of Spencer's analogy is "totally opposed to the negative view of State function". Accordingly, Spencer decided to write another essay, "Specialised Administration", in order to make his meaning clear. "The 'interests' to which I refer", he tells us in this essay, "as being averaged by a representative governing body, are the conflicting interests between class and class as well as between man and man -- conflicting interests the 'balancing' of which is nothing but the preventing of aggression and the administration of justice'. This is Spencer's view of the 'negatively regulative' function of State government. In order to arrive at it, he incurs grave suspicion of developing his analogy ad hoc. He first makes a distinction between the outer and inner systems of tissues in organisms, the outer comprising those needed for catching prey, escaping danger and the like, the inner comprising the digestive, circulatory and respiratory systems; and shows that, while the outer require a complex and centralised nervous system exacting speedy and complete obedience, the inner are only indirectly under the control of the central system, but have their own sympathetic system which
which holds a very mild sway over the digestive system, for example. The latter functions best when left alone, and only when a derangement occurs does it require active interference by the higher nervous system.

Now all this has its parallel in the social organism. "A society, like an individual, has a set of structures fitting it to act upon its environment -- appliances for attack and defence, armies, navies, fortified and garrisoned places. At the same time, a society has an industrial organisation which carries on all those processes that make possible the national life."

The structures which serve for protection and aggression, i.e. the army and navy, require strong government exacting unquestioned obedience. On the other hand, the industrial organisation works most smoothly and efficiently when it is self-regulative and is not subject to outside interference. The Executive which controls the defence organisations is not required to interfere with the industrial activities, except to act as a general restraining influence in order to prevent aggression direct or indirect. Its functions are limited to securing fulfilment of contracts and the administration of justice (which means meting out rewards in proportion to desert).

The Limits of State Action.

The analogy applies in another way. Among invertebrates there is frequently an evolution from a creature with limbs and sense organs, but scarcely any alimentary system, to an animal with a highly developed visceral system adapted almost exclusively to aliment-
atation and the propagation of the species. Similarly societies develop in general from the militant type to the industrial type. In the militant society (e.g. Sparta) everyone is a soldier under rigid discipline; the central authority regulates all social activities, down to the details of each man's daily conduct; the welfare of the State is paramount and the individual completely subordinate. The pacific or industrial society shows opposite characteristics. The central government is relatively feeble, interfering little with the private actions of the citizens; and the State exists for the benefit of private individuals. Thus the industrial organisation, corresponding to the stomach, is now regarded by Spencer as the higher type, and the implied injunction is, Hands off the stomach! The government must confine itself to negatively regulative control and must specialise in that, while the leaders of industry, the merchants and factory-owners, mind their own business, which is that of providing the necessaries of life for the community under a system of laissez faire.

"So long as order is maintained, and the fulfilment of contracts is everywhere enforced -- so long as there is secured to each citizen, and each combination of citizens, the full return agreed upon for work done and commodities produced; so long as each may enjoy what he obtains by labour, without trenching on his neighbour's like ability to enjoy; these (industrial) functions will go on healthfully -- more healthfully indeed than when regulated in any other way."

Specialised administration means, then, that the State should specialise on its negatively regulative function, and abandon all positive interference with the private
rights of the individual citizen. It exists externally for war, and internally for the enforcement of contracts; and that exhausts its functions.

From Militant to Industrial Society: Status to Contract.

That was the position at which Spencer had arrived in 1871. His next main contribution to social theory was embodied in the first volume of The Principles of Sociology, published in 1876. Here he introduces a new word, "super-organic", a word which raises hopes that he is about to recognise those ideal elements which characterise society as a union of minds for the promotion of the good life; but these hopes are disappointed. Super-organic evolution includes "all those processes and products which imply the co-ordinated actions of many individuals -- co-ordinated actions which achieve results exceeding in extent and complexity those achievable by individual actions". The results are more complex and greater in extent, but are not in essence different from those achieved by the individual man in his development. The Principles of Sociology is, therefore, noteworthy mainly for the development of the analogy of the social organism, first sketched in Social Statics and elaborated in the two essays just mentioned. Once again attention is drawn to the three systems of organs which are found alike in the individual organism and in the social organism, viz., the sustaining system, the regulative system and the distributing system. In early
societies, the sustaining system is represented by the slaves who provide the means of subsistence for themselves and their overlords; the regulative system is represented by those same overlords who, as warriors, carry on offensive and defensive activities with neighbouring societies; the distributive system is represented by such agencies as exist for transferring commodities. Societies may, however, be classified into two opposing types, the predominantly militant and the predominantly industrial. In the militant society, "the claims of the unit are nothing and the claims of the aggregate everything"; the regime of status is supreme; the co-operation which exists is compulsory co-operation; and the will of the individual in public and private affairs alike is controlled by the will of the government. In other words, the militant society shows the regulative system supreme, and the sustaining system completely subordinate to it. The industrial society is almost entirely the opposite of the militant. In the former, the state exists for the benefit of the individual; the regime of status gives place to that of contract; there is voluntary instead of compulsory co-operation between the citizens; individual freedom takes the place of government regulation; and private enterprise does, and does better, what was formerly done by the government. The industrial society shows the sustaining system supreme and the regulative system more or less in abeyance. The regulative system is represented by a government elected by popular vote and
having as its sole function the administration of justice, which, being defined, means seeing that each citizen gains benefits in proportion to his individual merits, and preventing any artificial distribution of benefits.

Defects in the Organism Analogy.

The lesson which Spencer intends to convey by this comparison is that individual freedom and governmental laissez faire characterise the industrial or higher type of society, while State interference and, as he thinks, the consequent negation of individual liberty characterise the militant or lower type of society. Thus despite the analogy between the social organism and the individual organism Spencer is still in the same position as when he wrote Social Statics, a quarter of a century before. It is, therefore, hardly necessary to point out the inconsistency, which he himself recognised, whereby in the individual organism the "higher" nervous system is shown as restraining the sustaining or "lower" system, while at the same time the industrial type of society (manifesting a supremacy of the sustaining system) is regarded as superior to the military type of society (manifesting a supremacy of the regulative system). This was, in effect, the criticism of a French student, Henri Marion. Spencer admitted the inconsistency but justified himself by contrasting the different ends of the two "organisms". The individual organism has as the prime law of its existence self-preservation, while the highly developed social organism (industrial society) aims not at self-preserv-
ation but at furthering the welfare of its individual members. "Social organism is to be considered high in proportion as it subserves individual welfare, because in a society the units are sentient and the aggregate insentient; and the industrial type is higher because it subserves individual welfare better than the militant type."

Towards the end of the first volume of the *Sociology* Spencer decides to abandon the analogy altogether, but not before he has destroyed its real usefulness. There is this one cardinal difference, he finds, between the social organism and the physical organism. In the latter consciousness or sentience is confined to one part of the aggregate, while in society each individual possesses the capacity for happiness or misery. "As, therefore, there is no social sensorium, it results that the welfare of the aggregate, considered apart from that of the units, is not an end to be sought. The society exists for the benefit of its members; not its members for the benefit of the society."

Leaving aside the question of whether it is proper to speak of any organism as an "aggregate", or to regard mind as residing in any one part of it, we may note the implication of this significant conclusion. The implication is that the individual is somehow prior to society and finds society merely a convenience for the furtherance of his individual ends. There is no room for the view that society makes the individual what he is, or that an individual can only be an individual in society. It is implied that the individual could exist apart from society and has become social merely because he judged it expedient to do so. In fact, the individual must have
liberty, if he so wills it, to contract out of society.

"The Man versus The State."

Some twenty years after Volume I of the Principles of Sociology was published, Spencer wrote four essays for the Contemporary Review, which were subsequently embodied in a little book bearing the significant title of The Man versus The State (1884). Individualism and the doctrine of laissez faire are even more prominent in it than in the Sociology. In fact, Spencer reverts substantially to the thesis of Social Statics: that the law of equal freedom ought to be the sole guiding principle in social organisation.

The central doctrine of The Man versus The State is the doctrine of natural rights. There are several ways of regarding these rights. We may consider them (1) from the point of view of the individual; or (2) from the point of view of society; or (3) from the point of view of the proper sphere of government.

Natural Rights from the Point of View of the Individual.

From the point of view of the individual, these rights originate in a law of "nature", whereby the individual is impelled to the fullest possible exercise of faculty. Self-preservation is "nature's" first law. To ensure self-preservation, a man must perform acts essential to life. Such acts can be performed only if individuals are allowed certain liberties and claims. These liberties and claims are therefore the origin of natural
rights. But man not being a solitary animal, these liberties can not be absolute. They must be limited by the need to allow other men similar liberties to exercise of faculty. The presence of other men in the community imparts an ethical character to man's 'natural' rights, since there are now some acts which the individual may not do. He may not do anything which encroaches on the liberty of other men to a similar exercise of faculty.

It would seem from this that the so-called natural rights have now become social rights, but that is not Spencer's view. He ridicules Bentham's assertion that government fulfils its offices by creating rights which it confers on individuals; and asks how a right can be obtained by a people's creating an agent, which creates the right and then confers it on its creator. Instead of the rights being created by laws, the alleged creating of rights is nothing else than giving a formal sanction and better definition to those assertions of claims and recognitions of claims which naturally originate from the individual desires of men who have to live in presence of one another. Spencer thus implies that the individual possesses a number of abstract natural rights which are, by implication also, at the same time ethical rights. Ultimately, however, they depend, not apparently on social recognition expressed either by custom or legal enactment, but on Spencer's a priori view of human nature as having a faculty which makes the individual restrict his claim to liberty in order to allow a like liberty to all other men.
Natural Rights from the point of View of Society.

Regarded from the point of view of society, natural rights imply the doctrine of the Social Contract. In *Social Statics* Spencer had explicitly rejected the view (which he supposed to be Rousseau's view) that an actual contract had been entered into by the members of society. At the same time, however, the assumption was there made of an implied contract. Now in *The Man versus The State* the hypothesis again appears. The question to be asked about any community, says Spencer after "dismissing all thought of any hypothetical agreement to co-operate heretofore made", is, "what would be the agreement into which citizens would now enter with practical unanimity?" Citizens would 'with practical unanimity' agree to co-operate only for two, or possibly three, purposes. First of all, the resisting of invasion and defence against foreign aggression would, with the exception of the Quakers, command the assent of practically all citizens. Secondly, only criminals would demur to the defence of person and property against external enemies. In the third place,-- but there are difficulties here which Spencer had come to recognise since writing *Social Statics*,-- all men would willingly agree to co-operate in the right use of the territory they inhabit. For most other purposes State interference to effect compulsory co-operation would fail to win practical unanimity. Hence compulsory co-operation beyond these narrow limits breaks
the implied agreement men make when they find themselves obliged to live in presence of one another, or co-operate because of anticipated advantages to be derived from co-operation.

Natural Rights from the Point of View of the Proper Sphere of Government.

Regarded from the point of view of the proper sphere of government, the doctrine of natural rights teaches us that "the liberty which a citizen enjoys is to be measured, not by the nature of the governmental machinery he lives under, whether representative or other, but by the relative paucity of the restraints it imposes on him". Parliamentary government, no matter how broadly based the franchise may be, is yet a limited government, limited, that is, by the implied contract in accordance with which it is constituted. 'The great political superstition' is the belief in the divine right of Parliaments.

In a review of past and present legislation Spencer seeks to show that natural rights are best observed in an industrial society characterised by laissez faire, such as Britain was developing into for a generation after the Napoleonic wars; and least observed in a militant society, such as Spencer believed this country was tending to revert to at the time he wrote (1884). The old liberal party, formerly occupied in the struggle to remove from the individual restraints and disabilities in industry, commerce and religion, has now become a new tory party, which, under colour of promoting the general good, vies with the nominal tories in passing coercive measures of
all kinds and in imposing additional taxes, local and national, for the carrying out of measures of social reform, education included, in such a way that individual freedom is being more and more diminished and State coercion proportionately increased.

The Arguments against Governmental Interference.

If it be argued that governmental interference is less vexatious now that the government is a representative government instead of an oligarchical one, the reply is that slavery is slavery whether the masters be irresponsible despots or popularly-elected parliamentary rulers. This is the substance of the complaint made in the essay on *The Coming Slavery*. Two main arguments are there used against State interference. One, which may be described as the 'thin edge of the wedge' argument, is that in practice State interference is hard to limit. If, argues Spencer, people are taxed to supply free education, why not taxes to supply free food and clothing? If we have State telegraphs, why not State railways? If the State undertakes charity (which had best be left to private benevolence) why should it not undertake insurance? There is thus, thinks Spencer, an ever increasing momentum which, heaping precedent on precedent, will end in reducing the individual to a condition of complete slavery to the State; the implication of the argument being that what the individual does for the benefit of society must diminish proportionately his power to work for his own benefit. Spencer will not contemplate the
idea that social welfare may comprehend individual welfare, or that society may represent the individual at his best and wisest. "If, without option, he has to labour for the society and receives from the general stock such portion as the society awards him, he becomes a slave to the society."

The second argument against State encroachment on natural rights is a biological one. It is to the effect that laissez faire is an aid to the operation of the natural law of the survival of the fittest, while State interference is a hindrance to that law. State charity, State education, State insurance and the like, have, as a result of the sins of past legislators, led to the survival and multiplication of the unfit and the improvident, and to the handicap of the fit by the resultant burdens imposed upon them. In particular, the successful business man, by having to pay larger taxes for schemes of social betterment, is hampered in his enterprises and is consequently unable to pay such high wages as he might otherwise do. Free libraries, free education, free baths, etc., represent supplements to workers' earnings, but at the same time they involve a decrease in their money earnings, owing to the burden on industry which rates and taxes represent. State enterprise in these matters is based on the assumption "that all suffering ought to be prevented, which is not true: much suffering is curative, and prevention of it is prevention of a remedy."
Family Ethics and State Ethics.

This same biological argument again appears in the essay entitled *The Sins of Legislators*, of which the main purpose is to emphasise a sermon which Spencer had previously preached, namely, that the proper education for a legislator is a study of comparative sociology. The law of the survival of the fittest is now used in conjunction with a distinction which Spencer makes between family-ethics and State-ethics. In the family where the members are for a time immature and helpless, the benefits they receive must vary "inversely as the power or ability of the receiver"; whereas in the State, where the members are adult, "benefit must be in proportion to merit -- reward in proportion to desert: merit and desert in each case being understood as ability to fulfil all the requirements of life -- to get food, to secure shelter, to escape enemies." When the State, owing to the sins of badly educated legislators, introduces paternal government by passing charitable measures and the like, and thereby applies family ethics to a sphere where State ethics should rule, fatal results ensue. The process of natural selection is hindered, the improvident and good-for-nothings are enabled to survive and multiply at the expense of the provident and good-for-somethings. "Society in its corporate capacity cannot without immediate or remote disaster interfere with the play of these opposed principles (juvenile dependence and adult independence) under which every species has reached such
fitness for its mode of life as it possesses, and under which it maintains such fitness." While generosity must be the essential principle of the family, justice must be the essential principle of the State -- justice meaning respect for the individual's natural rights, so that each may receive benefits in proportion to merits. Government, "begotten of aggression and by aggression", must be reduced to a minimum, and confine itself to seeing that there be freedom to enter into contracts and due fulfilment of such contracts as are entered into. The question to be asked by the individual citizen about any government is not "whether this machinery is or is not one that he has shared in making", but whether its actions do or do not "increase such restraints beyond those which are needful for preventing him from directly or indirectly -- needful, that is, for maintaining the liberties of his fellows against his invasions of them: restraints which are therefore to be distinguished as negatively coercive, not positively coercive".

The Influence of Spencer's Social Philosophy on His Educational Views.

Such a review as has been given of his social writings must have made it clear that Spencer was very far indeed from possessing a just or adequate conception of the nature of society or the value of its institutions. Beginning, as he did, with the individual, he fails to appreciate what individuality really means. Spencer distrusts society, for it seems to him to limit individual freedom. Social restraints are disliked, because they appear to him as wholly negative, instead of making
possible the larger liberty. Thus we are not surprised to find his educational views permeated by this limited individualism and imbued with an anti-social bias.

In the next chapter we shall see how his distrust of State interference with individual liberty leads him to deny any place in the social economy to a national system of education. Meantime, confining our attention to the essays on Education, we may examine how far they reflect the social philosophy just sketched.

The title of the first essay, "What Knowledge is of Most Worth?", is itself significant. Spencer pays but grudging tribute to the social training which the child receives through habit, imitation and suggestion, in those arts which subserve individual well-being. He demands for each individual a knowledge of the main principles of physiology and hygiene as the best guarantee for his becoming a good animal. The aim of education he defines as preparation for "complete living", which appears to mean giving the individual man scope for the fullest possible exercise of faculty. Of the activities which constitute complete living, the foremost are those which minister to self-preservation, and the least important are those which are concerned with appreciation of the arts, the most truly social of human products. The knowledge which is of most worth is the knowledge which bears upon the individual's physical welfare and his efficiency and success in competitive industry and commerce. The knowledge of least worth
is that which records social achievements and aspirations, namely, history and literature. In other words, 'unorganisable knowledge' is of little account, while science is of "chiepest value". Science can be verified by the individual himself: language and literature must be taken on trust on the authority of others. A scientific education makes for individual freedom; while a literary education, as a result of the social prestige enjoyed by those who have received it, "aids in weaving that ramified network of restraints by which society is kept in order". There is little place in Spencer's scheme of education for that informal education which takes place through the unconscious handing on of social tradition. Knowledge acquired in that unsystematic, non-deliberate way is of no worth at all. The individual can be sure of asserting his natural rights only if he is in possession of scientific knowledge, which he need not accept on authority but can put to the test of his own reason.

After self-preservation and the proper discharge of domestic duties, "complete living" involves certain civic functions. But if we seek to discover what is comprehended in a proper civic life, the only answer is -- judicious voting at the next election. To guide a man in his political life, ordinary history, we are told, is of no use. What is required is a knowledge of the "natural history of society", "the ultimate laws to which social phenomena conform", "the right principles of political action".
This knowledge must be sought in a study of descriptive sociology, or, perhaps, in such a book as Spencer afterwards wrote, namely, *The Man versus The State*.

Turning now to the second essay, we find that the guiding principle in *Intellectual Education* is that education should be a process of self-instruction. Mental development is but one instance of a universal principle of evolution ("the idea of life") which issues in a final individuation. Educational method should therefore eschew dogmatic teaching and confine itself to providing the appropriate conditions of mental growth. This means, in effect, that education should consist largely of sense-training and the cultivation of the powers of observation, so that learning may go on by means of self-discovery. While there is a place for the teacher, his function is not to act as a communicator of the accumulated experience of the race, but to provide suitable exercises for the developing faculties. The subjects of instruction which Spencer discusses are sense-training, object lessons, nature-study, drawing and geometry. There is no mention of language-work, literature, history or the fine arts, ostensibly because Spencer did not profess to deal with the whole field, but really because they could not conveniently be fitted into the principle of self-development. There is no spontaneous process by which the mind is able to assimilate the social heritage, and the social heritage is exactly what Spencer most distrusts. Just as humanity, in Spencer's opinion, has progressed solely by
self-instruction, so the individual must develop by a process of self-education. In other words, education is an individual affair, not a social process.

The third essay is, perhaps, most significant of all as an example of the influence exerted by Spencer's individualism. As we have already seen, Spencer first approached the subject of education from the moral side, when in Social Statics he took up the question of the rights of children. Education he there defines as the formation of character. The formation of character depends upon the exercise and training of sympathy and self-control. Coercion is the worst method to employ. Coercion on the part of parents is akin to active government on the part of the State, and government, like coercion, is the "offspring of immorality". Coercion may restrain: it does not train. Parents must first establish sympathetic and affectionate relations with their children, and then they may set to work on the task of character formation through the sentiments.

When Spencer again comes to deal with moral education in the third essay, he is still preoccupied with the question of punishment; and it is on the right method of punishment that the whole discussion turns. He has first to define morality, and this he does in evolutionary terms, connecting good and bad conduct with perfect and imperfect adaptation of the individual to his physical environment. "From whatever assumptions they start", he tells us, "all theories of morality agree 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."

Spencer makes it pretty clear that these results have nothing to do with society, but are physical consequences good or bad for the individual. In other words, morality is not connected with social approval or disapproval, but only with individual welfare. He shows us how "in bodily injuries and their penalties we have misconduct and its consequences reduced to their simplest forms", and implies that there is no difference between an offence like stealing or lying and a child's running its head against a table or burning its hand in a candle-flame.

This individualist theory leads Spencer into difficulties when he gets outside the simple environment of the home, and tries to apply the discipline of natural consequences to adult life. In adult life, he says in an unguarded moment, it is not physical pain but social disapproval which disciplines: "there comes into play a discipline like that by which the young child is trained to self-guidance". Here, of course, a transition has been made from inorganic nature to human nature, but Spencer will not admit that. Accordingly he withdraws the concession that "social discipline" may be necessary for more serious offences, and goes on to say that "the discipline of chief value is not the experience of parental approbation or disapprobation but it is experience of those results which would ultimately flow from the con-

"Education", p. 136.

p. 139.

p. 142.
duct in the absence of parental opinion or interference. The truly instinctive and salutary consequences are not those inflicted by parents when they take upon themselves to be Nature's proxies; but they are those inflicted by Nature herself."

How "Nature" would punish a lie or theft in the absence of a social code, it is impossible to conjecture. Spencer in his anxiety to make morality an individual matter and a result of evolutionary processes fails to make a distinction between physical nature and human nature, or to regard morality as essentially social. And that also, perhaps explains why this essay on moral education is wholly negative, being concerned rather with the question of how to punish bad conduct than how to bring about good conduct. Even the possibility of punishment's bringing the offender to a realisation of his own better nature and prompting an inward resolve to reform his conduct quite escapes Spencer's recognition. For him punishment is objective and has no subjective reference. It is the same for the animal as for the man; and man by becoming social has learnt nothing except obedience to the law of equal freedom.

General Criticism of the Social Philosophy.

It will be a convenience if we now attempt to summarise our incidental criticisms of Spencer's social philosophy by grouping them around four points: the analogy of the organism; the doctrine of natural rights; the theory of a social contract; and the educative value of
society and social products.

(a) Society as an "Organism".

Beginning with the analogy of the organism, we may point out that it was no doubt inevitable that Spencer, wholly devoid of a historical sense and interested from his earliest in the study of biology, should approach the study of society with biological preconceptions and should think of it under biological categories. It was doubtless also natural that a comparison should be drawn between society and the individual organism. There is always a temptation to read the more complex in terms of the more simple. The individual organism is a tangible reality open to examination, while society is intangible and not liable to investigation by the methods of natural science. Up to a point the metaphor of the social organism may be useful as an aid to the understanding of the social unity, but the temptation is always present to forget that it is a metaphor and to interpret the one entirely in terms of the other. Spencer gives way to the temptation and regards the resemblance as "almost more than an analogy", until finally even the conception of the social organism proves too menacing to his rooted belief in individualism, and is in danger of destroying the natural rights of the individual man.

The truth of the matter is, of course, that society is something quite different from an organism despite superficial resemblances. Society represents a union of individual minds and purposes which aims at realising
those purposes and giving fuller expression to those minds. Hence society is to be adequately described only in terms of mind and not by analogy with any lower "organ-ism". It is properly described as "super organic" if by that we mean a form of association between individual men which, unlike that between the cells of a body, involves on all sides common purposes, similar ideals, a common experience and, in general, mental links of connection. It is a union of conscious beings impelled by their nature to unite in the interests of their own highest development and the leading of the good life. And this union reacts in turn upon the individuals who compose it, developing in them qualities which they could not otherwise give expression to, and making possible a kind of life which could not be otherwise lived.

Spencer professes to find the clue to the nature of society in the nature of the units which compose it. It is a sound enough procedure. But the whole question turns on the meaning one attaches to individual nature. If the nature of a being is not what it begins as, but what in the course of development it ends by becoming, a very different view from Spencer's must be taken of what is natural in human life. If there are potencies present in man's mind which impel him to realise himself by the aid of social relationships and institutions, including the institution of governmental coercion, then these relationships and institutions are as natural as, for example, the impulses to self-assertion and pugnacity.
Hence the restraints which society imposes on its members are not to be regarded as restrictions on individual liberty, but as checks on impulses which are less than human, in order to make possible the larger liberty and the fuller self-realisation. "We might", says Rousseau in The Social Contract, "add to the gains of the civil state the moral freedom which alone makes man master of himself; for the impulsion of appetite alone is slavery, and obedience to the law which we have prescribed to ourselves is liberty".

Spencer's choice of the organism analogy, even if it be regarded as unsatisfactory, might have led him to see in society an enlargement of the individual self in the social "self" which society sustains. After all, an individual organism is a unity which cannot be subdivided without destroying it. Similarly society is a unity which cannot, except in thought, be broken up into the physical individuals who comprise it without causing them to become less than human.

Spencer came very near to expressing a significant truth when he dropped his analogy on the grounds that society is conscious in all its units, while the individual organism is conscious in only one of its tissues, i.e. the brain. If he had gone on to say that each individual in the society is capable of becoming conscious, however dimly and intermittently, of the purposes which animate the whole group, and may therefore be held to acquiesce in the laws and institutions which embody these purposes,
he might have reached beyond the analogy to some genuine understanding of the expansion of individual nature which society is capable of achieving. But as it happened, the analogy was abandoned not in the interests of a truer view of society, but in the interests of a supposed individual liberty which could, in Spencer's opinion, only be realised in the absence of social restraints. Society, he tells us, differs from an organism in that it exists for the private benefit of each of its units (considered apart from their social relations); whereas in the organism the different tissues exist and function for the good of the whole.

(b) Natural "Rights".

The natural rights which are thus, in the main, preserved in society are, says Spencer, merely subdivisions of the general right to exercise the faculties. The existence of society as a fact in man's life does nothing positive to promote this end. On the contrary, at the best it imposes restrictions on this natural right by the need it lays on man to obey the law of equal freedom; and at the worst, by the multiplication of governmental restraints, it seriously curtails the development of his individuality. Hence the right to exercise the faculties is itself non-social, and only the encroachment on that right which the fact of society necessitates is social.

"The ground of the right to live, as here stated, is simply the recognition that life is a good; and if the positive element of this good is non-social and only the negative is of social origin, and this alone is ethical,
it seems clearly to follow that the making the most of life -- its positive expansion and intensification "complete living" -- is excluded from the ethical aspects of individuality, and, indeed, that individuality has no ethical aspect at all."

What the basis of this natural right is, Spencer nowhere tells us, unless it be, as he says in Social Statics, the divine will. It is impossible, however, to regard it as a right in the absence of any recognition of it as such; and recognition of it implies recognition by some individual or individuals other than the self; that is, it implies a society. Rights are meaningless claims apart from social recognition of them as rights. Society recognises rights as inhering in individuals as a means of their developing their individualities to the full; for the essence of society is a realisation on the part of its members that it is the natural medium by which and in which they can achieve the kind of life their nature points to. Rights, indeed, lead to restraints and prohibitions, but these restraints and prohibitions are welcomed by the individual as a means towards a fuller and more perfect development. In other words, social restraints have a positive reference: they make for a greater liberty; they do not constitute a diminution of an imaginary fund of natural liberty.

(c) The "Social Contract".

A belief in natural rights, which are in part surrendered when a man enters society, implies a belief
that society rests upon some sort of social contract; and Spencer accepted a hypothesis of this sort. As we have shown, he did not postulate any actual contract, but had recourse to the supposition of a tacit agreement. In return for the surrender of part of their natural liberty, by agreeing to observe the law of equal freedom, men ask from society protection and the enforcement of contracts. Beyond that their implied bargain does not go. Society can give them nothing more. Governmental restraints, other than those necessary for the two purposes mentioned, are unwarrantable interferences with individual liberty, and constitute a breach of faith. Society is, therefore, reduced to the level of a joint-stock company for mutual protection.

A more adequate view of the origin of society would, of course, have been to see it arising out of man's mental needs and as satisfying the requirements of his spiritual nature. This is a view which goes as far back as Plato and Aristotle; but Spencer, brought up on science and distrusting traditional views, could not, perhaps, be expected to have embraced it.

(d) The Educative Value of Society and Social Products.

His very limited view of the function of society in its relation to the individual effectively prevented Spencer from appreciating its educative value, or the educative value of those subjects like art and literature, which, if they are not social in the sense of ministering to the economic needs of man in society, are nevertheless the
finest expression of that higher self which attempts to realise itself in and through society. As the creation they make an appeal to all minds in so far as these minds of the best minds can rise to the appreciation of them. But it is not only art and literature and traditional knowledge which are educative. The institutions into which the child is born, answering as they do to human needs and purposes, are themselves educative. They express ideas and purposes far beyond the power of the average individual mind, much less the immature mind of the child, to conceive unaided, and in doing so they help to awaken the purposes and ideas which are immanent in the child's mind. But the child cannot appreciate them by a process of self-discovery. The teacher, representing the social community, must contrive to give his pupils a training in the art of citizenship.

So it is also with the machinery of law and punishment, whether within the family community or in the wider community of society organised as a State. This machinery is not an artificial mechanism devised by some outsider and imposed upon the community. It is an expression of the real will of the group and is accepted by them as such. A child who is punished, whether by "natural consequences" or social agencies, and does not come to feel that the punishment is somehow in his own best interest, may be effectively restrained, but he is not being educated. If, on the other hand, he realises, however vaguely, the appropriateness of the penalty, and, best of all, if he welcomes it as a means of
reinstating himself in his own regard and in the regard of the group to which he belongs, it matters little whether the penalty is natural in the sense of being a consequence of the physical constitution of the universe, or social in the sense of being a mark of public disapproval and a means of bringing a desired reform in the offender's conduct or nature.

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See also General Bibliography.
CHAPTER IX.

THE STATE AND EDUCATION.

The State
The End of State Action.
The Nature of Government.
The Principles of State Interference.
Application to Education.
Spencer's Arguments against State Education in "Social Statics."
Spencer's Substitute for the State as Provider of Education.
Conclusion.
CHAPTER IX.

THE STATE AND EDUCATION.

The State.

In the interests of clearness we may begin our dis­
cussion of the relation of the State to education by de­
fining what we mean by the State,—a necessary prelimin­
ary, since Spencer is rather vague on this point. He

tends to use the three terms, society, State, government,
as if they were interchangeable; and owing to this con­
fusion he is led to make mistakes with regard to the end
and limit of State action, mistakes over and above those
caused by his misleading and unwarrantable antithesis of
the Man versus the State.

We may note, in the first place, that society is
not the same thing as State. If we regard the State as
society organised, unified and equipped with force, we
see that there is a sense in which society is prior to
the State, and a sense in which society remains distinct
from the State. "The State arises, according to Hegel,
from Society, to ensure that the individual shall be
fully realised, chiefly through his own conscious action.
The State guarantees him his individuality, which society
with its self-seeking struggle of competitors tends to
efface."
Society has many institutions, family, trade, Church, etc., each making its claims on the loyalty of the citizen. But the State is rightly regarded as the institution which has power to adjust the claims of these lesser institutions in the interests of the common good. It is in this sense that the State may free the individual from the tyranny of some smaller social group within itself, and is able to do so because it is more likely to be free from the limitations of the lesser institution. The State as the embodiment of the social purpose or "general will" may be expected to foster and encourage a better idea of the good than any one institution within it, since it may be said to stand for and upon the best elements of that public opinion which it reflects and on which its continued existence depends.

The End of State Action.

The State, as Aristotle tells us, originates in the bare needs of life, and continues in existence for the sake of a good life. This remains an admirable summary of the end of State action; for the promotion of the good life is the justification of all action on the part of the State. But it is too general a statement to help us to understand how the State should act. We need to enquire first how the State originates, and this can very conveniently be done by a criticism of Spencer's idea of the State; since it is the purpose of the present chapter to examine Spencer's views on the part the State should play in the education of its citizens.
The title of Spencer's little work which we have analysed in the preceding chapter strikes the keynote of his treatment of State interference. He sets up the antithesis, the Man versus the State, implying that the development of individuality and the growth of the institutions of the State are antagonistic processes. Any interference by the State with the natural "rights" of the individual is bound to result in a diminution of individual liberty. The latter he regards as a fixed amount which somehow exists by "natural right" prior to the appearance of the State. The state or government (Spencer uses the two terms as convertible) is continually seeking to interfere with this liberty, and the efforts of the "old" liberals have been directed towards the end of diminishing State interference and increasing individual liberty. The "new" liberals have gone beyond their brief, and by insisting on State enterprise in many spheres have seriously diminished the freedom to which the individual man had attained, and which he must never surrender, no matter what specious arguments are used to make him think he is acting in his own interests or in the interest of his own fullest development as an individual.

Spencer's mistake is to regard the individual as prior to the State and consequently as having his claims versus the State. The exact opposite is the truth. As we have already seen, an individual human being, divorced from all social ties, and leading a life of isolation, is
inconceivable: "it" would be an animal. It is society that makes the individual, and it is the State which guarantees the highest development to his individuality. The relationship between individual citizen and State is not one of unit in an aggregate, as Spencer, despite the organism analogy, constantly implies. It is one of individual mind and purpose in a greater mind and purpose. Nor is it necessary that the individual should consciously realise his community of interest with the interest of the State: it is only necessary that his interest should in fact be part of the common interest, capable of being brought to consciousness under suitable conditions. A fact is none the less a fact, even if it be not consciously recognised as a fact.

What is meant is that there are qualities immanent in human nature which lead men to seek the association of their kind in order to achieve the end which is implicit in their nature, namely, the living of the best life. These qualities account for the existence of society, which may take, and has taken, many forms; but if the nature of a thing is, as Aristotle said, not what the thing is, but what it has in it to become, then society would seem to have been impelled by its own nature to develop into the politically organised State. In other words, in order to realise themselves most fully men have been driven to seek some form of association which gives power to itself to order the lives of its members with a
view to enabling them to satisfy distinctively human aspirations in the life of a well ordered State. Men may have on occasion to be "forced to be free". The State is, therefore, to be regarded as 'natural', just as much as is society. "If ...," says Bosanquet, "you start with a human being as he is in fact, and try to devise what will furnish him with an outlet and a stable purpose capable of doing justice to his capacities -- a satisfying object of life -- you will be driven on by the necessity of the facts at least as far as the State, and perhaps further."

If this conception of the State be regarded as a true one, it will readily be allowed that there may arise occasions when the State may have to "interfere" with the individual in his own interests. The citizen who shows loyalty to his State does not always know how to behave for his own and the general good; and even if he does, he has not always the will to sustain that behaviour. The State, acting through its executive, or code of laws, or public opinion, and representing the best thought which its members have been capable of realising, may have to step in and compel obedience to its decrees. This constitutes interference, no doubt, but interference with a positive purpose. The aim is to bring the individual to his better self, to seek to make him realise the implied object of his loyalty. It may indeed be regarded as interference with his lower self by his own better self, for he must be supposed to have realised, however
unconsciously, the community of purpose between himself as an individual and the State of which he has been assumed to be a member. "Force or automatic custom or authoritative tradition or 'suggestion' are not hostile to one individuality because they come from 'others' but because their nature is contradictory to the highest self-assertion of mind, because they are, so to speak, in a medium incompatible with its medium."

Spencer's mistake lies in supposing that any increase in the power of the State or sphere of State action involves a proportionate decrease in individual liberty. He chooses to ignore the fact that State interference is often necessary to ensure to the individual freedom to develop his capacities. It is not interference in itself, of course, that must alone be considered. The object of the interference and its de facto results must be taken account of. There are times when the encroachment of a government must be resisted in the interests of the general good, i.e. in the interests of the State itself; and there have been such occasions in the history of this country, notably in the seventeenth century when the Stuarts sought to identify the State with the monarchy. The struggle for individual liberty may then be a means not of diminishing the power of the State through a limitation of the power of the Ruler, but of actually increasing the force of the State as an agency for realising the common good. And the common good is best realised when each individual is enabled to live the best life, that
being for man a life in society of the highest type, i.e. an organised society or State.

The Nature of Government.

The State functions through the institution of Government, so that government may be regarded as the administrative or executive organ of the State. Government is an institution which has developed out of the fact of men's association in the State. It is not something alien to the individual, but an institution which he has established to promote his own good. Now Spencer is in two minds about the nature of government, just as he is in two minds about the nature of society.

(a) In the Essay on the Social Organism, Spencer, as we have seen, protests against the popular notion that society is a manufacture and not a growth, and quotes the dictum of Mackintosh that "Constitutions are not made, but grow" as a truism. This protest he repeats in The Sins of Legislators, amplifying it by insisting on the need of implanting in the minds of legislators "a scientific conception of a society -- a conception of it as having a natural structure in which all its institutions, governmental, religious, industrial, commercial, etc., are interdependently bound -- a structure which is in a sense organic." From this quotation it would appear that governmental institutions are as natural as society, that they grow and are not made. Accordingly, since progress is assumed, it would seem to follow that they ought to be allowed to develop in conformity with their own nature.
(just like society itself), whether they legislate badly or well, sparingly or to excess. This inference is explicitly made by Spencer himself when he says, "As I heard remarked by a distinguished professor, whose studies give ample means of judging -- 'When once you begin to interfere with the order of Nature there is no knowing where the results will end.' And if this is true of that sub-human order of Nature to which he referred, still more is it true of that order of Nature existing in the social arrangements produced by aggregated human beings."

(b) But the whole tenour of The Man versus The State is that governments interfere with the natural growth of society. Government is begotten of aggression and by aggression and "ever continues to betray its original nature by its aggressiveness". The charge against government is two-fold. In the first place, it encroaches on the natural rights of the individual; and secondly, it interferes with the natural evolution of society. Parliament as a governmental institution has strictly limited functions. It is bound by the conditions of the implied articles of incorporation. These are the resisting of invasion, the preservation of security of life and property within the State, and the regulation of the use of the territory which the citizens inhabit. For the rest, Parliament must see to it that there are "few restrictions on men's liberties to make agreements with one another," and that there is "an enforcement of the agreements which they do make." "If each, having freedom to use his
powers up to the bounds fixed by the like freedom of others, obtains from his fellow-men as much for his services as they find them worth in comparison with the services of others -- if contracts uniformly fulfilled bring to each the share thus determined, and he is left secure in person and possessions to satisfy his wants with the proceeds; then there is maintained the vital principle alike of individual life and of social life. Further there is maintained the vital principle of social progress; inasmuch as, under such conditions, the individuals of most worth will prosper and multiply more than those of less worth. So that utility, not as empirically estimated but as rationally determined, enjoins this maintenance of individual rights; and, by implication, negatives any course which traverses them."

The non-interference of government with the individual is thus the fundamental condition of a healthy social life. Society is a growth, not a manufacture. Government must stand aside and let the fittest survive under a system of complete freedom on the part of the individual to make contracts, and of a rigid enforcement of such contracts as are made.

It is not possible to reconcile the two views. Either "governmental institutions" are part of the social organism, and as such must be allowed to evolve in their own way without interference by Spencer or by liberals, old or new; or government is something outside the evolutionary process and is not a natural growth but a manu-
facture. In the case "how can we avoid the suspicion," as Ritchie asks, "that there is some flaw in Mr Spencer's scientific conception of society, and that it breaks down at Government?" Spencer cannot have it both ways; and in justice to him, it must be said that he would not wish to have it both ways. It is clear that he regards Government as quite an "unnatural" institution which had best be limited to the protection of individual liberty, and allowed the barest minimum of "interference."

The Principles of State Interference.

Even if the view be accepted that the institution of State is a natural and inevitable expression of the human spirit, that it is 'the mind of man writ large,' it does not follow that its "interference" is always justifiable. As a human product it has its imperfections. We may therefore consider briefly the limits of State action, or the principles of State interference.

If the State continues in existence for the sake of the good life, its action must be directed to the furtherance of the good life. But this good life is an individual life; and the problem is how the State may contrive to influence the lives of its individual members so that they may be the better able to live fully and well. There are certain things which by their nature neither State nor any other external agent can directly effect. One of these is obviously morality, for an act is moral only in so far as it expresses an inner aspect of the agent's character, and no external power can directly compel the
will. It is an old point that an act done under compulsion is not a moral act. Similarly, the State cannot, strictly speaking, be said to educate its citizens or their children. It can only provide the external conditions which conduce to their receiving education. The State is therefore compelled to act indirectly and externally. In a sense it is justified in "interfering" by the results of its actions. In considering State action, then, we may (following Ritchie) put to ourselves three questions:

(1) Is the object aimed at good? Is the action of the State likely to increase the general welfare? Is it an action in accordance with the spirit of the nation?

(2) Will the proposed means attain this end?

(3) Will they attain it at too great expense or not? Is the "interference" which they cause likely to result in a liberation of the human spirit greater than the possible restriction which they cause?

These questions cannot be answered a priori, or by reference to an assumed existence of "natural rights" of the individual citizen. They must be answered by an examination of the possible or actual outcome of the State's action.

Application to Education.

Let us try to apply these questions to State education.

(1) Is universal education a good? Only one answer is possible. It is not difficult to show "a definite
tendency to growth, or a definite reserve of capacity, which is frustrated" by illiteracy. Whatever may have been the case in the seventeenth or the eighteenth century, there can be no doubt that formal education had become a social necessity in the nineteenth century, or that it is an even greater necessity in the twentieth century. There may conceivably be difference of opinion as to how the education may best be given: there can be no gainsaying that somehow provision must be made for the education of the nation's children.

(2) Will compulsory State education result in all citizens having a minimum of culture, or is any other agency conceivable? History provides the best answer to this question. As we have seen, first the Church and then Charity Organisations attempted to bring a minimum of schooling within the reach of the working classes. Both failed; and the State was reluctantly compelled to undertake the task. It has succeeded, because it is the one institution which compels all men's loyalty, and which is able to make compulsory demands on all men's resources to provide the wherewithal for the provision of schools and the payment of teachers. In this respect, as in many others, the State has simply taken over an enterprise which originated and developed independently of State control, because it had become impossible to continue it without the aid of the State's resources, and because its continued existence and extension were vital to the welfare of the State. Thus education, taking its origin
in the religious and charitable impulses of individuals or subordinate social groups, came gradually to be recognised as a matter of universal social concern, and became more gradually, but yet finally, a State enterprise. There could have been no system of universal, compulsory State education in 1870, if the nucleus of that system had not existed on the system of voluntary and Church schools. There would have been no opportunity for the State to make its first grant in 1833, had the machinery not been in existence to dispense that grant. State intervention in education was in the nature of an evolution or development of what had for generations been shaping itself as the social purpose.

(3) The object aimed at in State control of education is obviously, then, a good: it aims at developing the capacity of every citizen, so that he may become an efficient and useful member of the community, with the chance of achieving some measure of real freedom; it protects children from the lack of foresight of their parents, or from their selfishness, ignorance or poverty. The means adopted to achieve the end, namely, universal, compulsory education by State provision of schooling, have been proved to be necessary by the record of history; and no other agency has seemed likely to be able to take the place of the State. There remains therefore only the third question: What of the cost? State education involves compulsion. According to Spencer, it involves "interference" with the "natural rights" of the individ-
ual owing to the levying of taxes to support schools, colleges, libraries, gymasia, reading rooms, etc. Undoubtedly it does. The material goods of the citizens are decreased by their having to pay educational rates and taxes; but there is a disproportionately greater increase in the spiritual good of the community which is worth achieving at the cost involved; and this spiritual good is of a kind that can be shared by others without our portion being diminished. The fact that the whole nation is educated increases the freedom of every individual to a degree which vastly outbalances the restriction of his freedom by his being called upon to pay taxes in support of universal education. "The existence of a mass of ignorance at the base of society is a grave danger to the whole of the community and to every individual in it; and a danger against which we desire to be protected. That is the case for State education in its very lowest terms." This protection is surely well worth paying for.

We may conclude then that the liberation of the human spirit by the State enforcement of compulsory education is greater than the restriction caused by the levying of educational rates and taxes; and that State education is justified on all three grounds.

Spencer's Arguments against State Education in "Social Statics."

We are now in a position to take up in detail Spencer's polemic against National Education as set forth in "Social Statics," and repeated in essence in "The Man versus The State."
(1) As we have already shown, the sole function of government, according to Spencer, is the maintenance of the individual's natural rights, "which are merely subdivisions of the general liberty to exercise the faculties." Now, if the State seeks to administer education, it must levy taxes, and this involves taking away more of the citizen's property than is needful to maintain his rights, and is consequently wrong. To the objection that children's rights are involved in questions of education, Spencer replies that the lack of education, assuming that parents remain unmoved by affection for their children to provide education privately, does not curtail "any previously existing power to pursue the objects of desire," and hence children's liberty to exercise the faculties is left intact, this freedom being all that equity demands. The reply to this argument has already been given. The State exists to promote the general good, not to defend a wholly fictitious code of natural rights. The children of the nation are its future citizens. Their capacities are valuable not as "previously existing," but as fully developed; and it is in the interests of the general welfare, and therefore an essential part of the State's function, to see that they are fully developed.

(2) Spencer's second argument (one of which he is very fond) is a logical one. It is two-fold. (a) First, he tells us, there is no _logical_ reason why the State should stop at education. There is not. If, says Spen-
cer, government educates a man's children, why should it not feed and clothe them? "If the benefit, importance, or necessity of education be assigned as a sufficient reason why government should educate, then may the benefit, importance or necessity of food, clothing, shelter and warmth be argued as a sufficient reason why government should administer these also." Where will parental responsibility be then? This objection has lost much of its force nowadays. We are accustomed to contemplate the provision of food and clothing to necessitous children who are not judged capable of profiting by the instruction given in school. Accordingly, we are not at all scared by the picture which Spencer conjured up in 1850. It is sufficient, perhaps, to point out that the canons of formal logic are not applicable to social affairs. If it is in accordance with social logic that there should be State oversight of the bodily health of certain children, as well as the mental development of all children, so much the worse for formal logic if that involves any breach of its principles. Social development is not a logical process: it is a human process, a psychological process. The great justification for the enlargement of the function of the school is that the State can do infinitely better by the children of many of its members than the latter can do as individual parents. That is not to say, however, that the State need, or will, try to do for all children what it may legitimately try to effect for some children. The three-
quarters of a century which has elapsed since Spencer published his treatise has witnessed a great increase in State enterprise, but the State has not yet shown any inclination to take over the duties of family training in cases where it is satisfied that these duties are being performed by individual parents as well as, or better than, they could be by the State.

(b) Secondly, says Spencer, there is no logical reason why the State should stop at elementary education. Why should it not proceed to enforce university education on all? If it enforces the teaching of the three R's, why does it not also make compulsory the teaching of geography, history, drawing, natural science, geometry, chemistry, physiology, astronomy, mechanics and geology? "Where is the unit of measure by which we may determine the respective values of different kinds of knowledge? Or, assuming them determined, how can it be shown that a child may claim from the civil power knowledge of such and such values, but not a knowledge of certain less values?" To this the reply is that the State has successfully survived the "ordeal of definition." It has so far decided that elementary education should be compulsory for all up to the age of fourteen, and it may at no distant date decide further to extend the age to fifteen or even eighteen. If it stops at eighteen, it will not be because it has reached a logical definition of what constitutes the sphere of State education, but because it has come to the conclusion that the general welfare is best served by making education beyond that age optional,
and that the interests of university education are best served by leaving it in charge of a professional corporation of teachers with a minimum of interference by the central government. University education aims at the increase of knowledge, the discovery of truth and the formation of free and enlightened opinion; and, as we have already indicated, the State can interfere in this sphere only indirectly if at all. It can provide the external equipment, the material requirements of a university, but it is powerless to promote directly the growth of the university spirit.

(3) In Spencer's opinion, State education clearly involves governmental definition of the aim of education. "It must first form for itself a definite conception of a pattern citizen; and having done this, must elaborate such system of discipline as seems best calculated to produce citizens after that pattern." The result will be a dead uniformity in the product. This is Spencer's strongest argument. The State as the sovereign force must make its influence felt in all departments of social life; yet, as we have seen, its function is none the less negative. There are limits to State interference in education. The State, or rather the Department which is charged with the carrying out of the general will, may, in contradiction of that will, attempt to prescribe the kind of influence which teachers are to bring to bear upon the minds and characters of their pupils in the interests of the existing conditions of social life.
There is some truth in Spencer's charge that State education tends inevitably to be conservative. Education ought, he thinks, to be "the never sleeping agent of revolution," whereas government tends always and everywhere to favour the status quo, to make people "content with that station of life to which it has pleased God to call them." Spencer points with some justice to the "attempt in Cobbett's day to put down cheap literature, by an act which prevented weekly publications being sold for less than sixpence," to "the reluctance with which the newspaper stamp duty was reduced, when resistance had become useless," to the "double-facedness of a legislature which professes to favour popular enlightenment, and yet continues to raise a quarter of a million sterling yearly from 'taxes on knowledge'" — adducing each of these instances as an example of governmental antagonism to the spread of knowledge and the free discussion of opinion. We may freely admit the danger. Parliament has never in this country shown any precipitate haste to "educate its masters". Public education began, says Bosanquet, "by standardising to a very commonplace standard 'an education contrived by clerks for a nation of working men,' and is very slowly being dragged into the right path by public protest, social experiment and, no doubt, the energy of the best officials."

Of some force too is the correlative objection that the existing government will tend to use the schools as channels for propaganda in its own support. If the State
so orders its educational system as to control its teachers by making them directly officers of state, then it may guide education along narrowly nationalist lines, as the Prussian government attempted to do with some considerable success before the war. "A system of national education is, as it were, a new tool in the hands of the State; and it may use the new tool for what it imagines to be its own ends. It may attempt a uniform prescription, from a central office, of a single code intended to realise a national idea conceived in the brain of its own officials, and it may thus seek to defeat the right of self-determination which, in education no less than in other matters, is inherent in any democratically governed community. It may attempt, through the teaching of national history, and through the organization of the life of the school, to enforce the negative form of patriotism which is chiefly occupied in crying down the achievements of other nations. Political parties may seek to make schools partisan, seeing a ready way to victory in an alliance with teachers and an indoctrination of the young." But that has not been our experience of State education in this country. So long as teachers remain semi-independent of State control, there is no great risk of the schools becoming seed grounds of government propaganda, or turning out their pupils "content with that station of life to which it has pleased God to call them." Yet there is some force in Spencer's charge of conservatism against State schools. All institutions are conservative, the
school included. It is not for a State department to fortify that tendency by a too rigid control of schools. The social purpose is best served by giving the schools freedom to approximate their atmosphere and methods to that purpose, to harmonise the life of the school with the best life of the community.

(4) Spencer's next objection is that "a government cannot in fact educate at all, but can only educate some by uneducating others." This follows from his complaint that State education leads to the total annulment of parental responsibility; but it is connected in an interesting way with the doctrine of evolution by natural selection, through the survival and multiplication of those best fitted for their environment. Imprudence and lack of self-restraint are factors which lead to the growth of a pauper population. State provision of education, by diminishing parental responsibility, encourages imprudent and hasty marriages and thus interferes with the "discipline of nature," which adapts men to their circumstances by bringing the shiftless and imprudent face to face with "stern necessity," thereby strengthening their powers of self-restraint. Parental responsibility is the strongest incentive to self-restraint, so that, were the State to educate gratuitously, many a man even after marriage "would not only cease to improve in power of self control as he is now doing, but would probably retrograde, and bequeath his offspring to a lower instead of a higher phase of civilization."

There are two objections to be made to this line of
argument, not to mention the implied belief in the transmission of acquired characteristics. In the first place, Spencer assumes that knowledge of consequences is an adequate guide to conduct. Men are to be restrained from marrying and having children by the mere knowledge that they will be compelled to pay for their maintenance and education. As he himself has just been insisting in the same chapter, "mere ideas received by the intellect, .... are quite inoperative upon conduct, and are quickly forgotten upon entering into life." In the second place, Spencer expects us to contemplate with equanimity "the admirable silent-working mechanisms of nature," by which the survival of the fittest will be brought about at the cost of incalculable misery and suffering on the part of children as well as their parents. We prefer to see the State devising machinery to prevent this potential loss of human happiness and efficiency, or even life, by freeing individuals from the struggle for existence once characteristic of primitive man and still to be found among animals. We can no longer afford to trust to Nature "with a perfect economy," and a capital letter.

(5) There is still a further objection to compulsory education, which we must note before going on to consider Spencer's substitute for the State as educator. He bids us beware of the fallacy that education is preventive of crime. As commonly understood, education means the mere training of intellect, whereas men are governed by their passions. Ordinary teaching will not eliminate evil doing from the hearts of men: "their sins will mere-
ly be made more Machiavellian." "Crime," Spencer tells us, "is incurable, save by that gradual process of adaptation to the social state which humanity is undergoing. To hope for some prompt method of putting down crime, is in reality to hope for some prompt method of putting down all evils -- laws, governments, taxation, poverty, caste and the rest; for they and crime have the same root." The little that education can do to alter character, Spencer concludes, can be done only through a training of the emotions. If it is suggested that State education should take this form, Spencer replies in an exclamation: "From all legislative attempts at emotional education: may Heaven defend us!"

For good or ill we have decided not to leave crime, poverty and other social evils to cure themselves in the course of generations by a gradual process of elimination, accompanied by much suffering and waste. We have preferred to use the other "evils" of "laws, governments and taxation" as means of combatting the forces which produce crime and poverty. If the education which the law prescribes, government enforces and taxation makes possible, is not the right kind, we can change it. The remedy is not less education but more and better education; and we heed have no special horror of "legislative attempts at emotional education." It cannot be seriously questioned that crime in this country has greatly diminished since 1870. We need not claim all the credit for education. There have been improvements of many kinds in social life--
largely as a result of State intervention. But it is not hard to see that education has played a large part in making possible these very changes which have reduced the amount of crime, though few people assert that education alone is a sufficient guarantee against anti-social conduct.

Spencer's Substitute for the State as Provider of Education.

What should be substituted for the State as the agent of education? Spencer's reply to this question is, Trust the individual parent. Parental affection is a strong enough incentive to ensure that children will be educated in the absence of compulsion. That is Nature's machinery for ensuring "the mental and physical development of successive generations." Instead of leaving it to Nature, however, "legislators exhibit to us the design and specification of a state-machine, made up of masters, ushers, inspectors, and councils, to be worked by a due proportion of taxes, and to be plentifully supplied with raw material, in the shape of little boys and girls, out of which it is to grind a population of well-trained men and women, who shall be 'useful members of the community'!"

If it be argued that parents do not know what good instruction is, Spencer replies that a similar pretext has served for all sorts of vexatious interference by the government in other departments of life; and that the assertion is false. Ignorant parents have three means of estimating the quality of the education offered. They can observe the effects of good or bad teaching on other
people's children; they can follow the example shown them by parents better educated than themselves, and choose the same schools; and there is finally the test of price -- they will know that cheap education is nasty education and dear education is good education. Parents can be trusted to give their children the best education they can afford. In any case, even if mistakes are made, they will cure themselves. "The rising generation will better understand what good education is than their parents do, and their descendants will have clearer conceptions of it still."

State educationists show a childish impatience with the "ordained rate of progress." They are "dissatisfied, because the progress from general ignorance to universal enlightenment has not been completed in a generation."

They ought to trust "natural forces." A natural and spontaneous process will see to the unfolding of the national mind. It will be slow, no doubt, as all social transformations are slow, but it will be sure and certain. There is no need to try to hasten it by "legislative fingerings."

So far the arguments have dealt with the parents; but education primarily concerns children. Spencer's treatment of the rights of children, to whom as much as to adults he would apply the law of equal freedom, turns upon a distinction he recognises between 'faculties' actually in existence and 'faculties' still undeveloped. The child is to have perfect liberty to exercise his
existing faculties, subject only to other people's having equal liberty. The child's liberty is therefore equal to that of the adult, though not the same, since the child has fewer developed faculties. There is nothing in this law which prescribes a child's right to education. Education has to do with the development of faculties, not with previously existing faculties. Hence denial of education does not infringe a child's liberty to exercise such faculties as he possesses.

The chapter in "Social Statics" dealing with the rights of children is, as we have seen, concerned mainly with the evils of coercive discipline, and not, except by implication, with the relation of the State to education; but towards the end of the chapter there is an interesting paragraph in which Spencer makes clear his attitude to the institution of government. To the objection that "if the rights of children are co-extensive with those of adults, it must follow that children are equally entitled with adults to citizenship, and ought to be similarly endowed with political power," Spencer's reply is that it is not the law of equal freedom which is responsible for the absurdity, but the institution of government, which will not exist in a perfect society, "in which morality shall have become organic." If government does not exist, political power will not exist, and therefore neither children nor adults will possess political rights. "Were the moral law universally obeyed, government would not exist; and did government not exist, the moral law could not dictate the
political enfranchisement of children. Hence the alleged absurdity is traceable to the present evil constitution of society, and not to some defect in our conclusion."

Spencer's expectations of the wisdom likely to be shown by "ignorant parents" are saved from being absurd only when it is recollected that in "Social Statics" he has in view the fully evolved society in perfect equilibrium with its environment. In the present imperfectly evolved society, State interference is justified precisely because there are so many individual parents who are not able to judge properly what is in their own interest or in the interests of their children. "Ignorant parents" with no traditions of culture are not likely to be able to discern the need for education of any kind, far less to be able to choose between good education and bad education. Yet it is vital to the welfare of the State as a whole that all its members should have the chance of education. Parents have a moral duty to see that their children are educated. If they do not perform this duty, the State can not compel them to be moral; but it can forcibly remove the obstacle in the path of children to the living of a moral life, an obstacle constituted by ignorance and illiteracy. And that, as we have seen, can only be done by the State's providing universal, compulsory education.

State education is provided as much in the interests of the children as in the interests of the general good. We realise that children in our society have
"rights" as well as adults. But these rights are, some of them, in the future, and not in the present. The nature of a human being is what he is capable of becoming as well as what he is. It is not enough to see that children have freedom to exercise "previously existing" faculties: the potentially existing faculties must have a chance to develop. Any adequate view of what constitutes human nature implies that at least.

Conclusion.

Much as we disagree with Spencer in his views on the right relation of the State to education, we shall be less than just to him if we fail to appreciate the lessons he teaches with regard to the dangers inherent in an educational bureaucracy. Extreme centralization and minute oversight and control of education may well result in a uniformity which means death to the spirit of the process; and that is too great a price to pay for mere mechanical efficiency. But State control of education need not necessarily mean State management. The State may hand over the control to locally elected bodies, and may thus permit and encourage diversities in method and curriculum, while still retaining responsibility for the general oversight of the process. State control need not mean direct control by the central department of State. In the long run the State must be the ultimate arbiter, because education is of national, not local, concern; because nowadays it is a very costly enterprise and must be subsidised from the national exchequer; and because, for
the proper co-ordination of the different stages of education -- elementary, secondary and university -- and the different kinds -- liberal and technical, -- some institution representative of the nation as a whole must have the deciding voice. But enlightened public opinion may well realise that education is an enterprise different in nature from that of the postal service or national defence -- an enterprise which cannot be subjected to detailed direction or minute and uniform codes of regulations without doing harm to its real efficiency. The State department may deliberately restrict itself to the collection and sifting of local experiments, the issue of general directions, and the inspection of the results of educational enterprises locally initiated; while leaving the teacher a measure of freedom to experiment and plan his own courses of instruction.

In actual practice, education in this country, although State-provided, is not by any means completely centralized. The local education authorities enjoy a very considerable amount of power and initiative; they are "perhaps the most powerful organs of local self-government in the country; and those who know their powers will readily recognise that the principle of "balance" is still maintained ... by the condominium which associates the local authorities with the central Board in the administration of education." The very number of these authorities guarantees the maintenance of a wholesome diversity, corresponding to differences in local environment and
local needs.

In addition to the State schools there are, especially in England, large numbers of private schools managed by governors, private associations or private persons, which keep alive the spirit of private enterprise, and make possible experiment and innovation to a degree hardly possible in a State institution.

In these two facts we have some safeguards against the dangers of State education; but the price of liberty is eternal vigilance, and to be aware of the dangers inherent in State education is a first step towards securing the benefits without the disadvantages of a national system of education.

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CHAPTER X

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CHAPTER X.

RIGHT AND WRONG CONDUCT.

The two preceding chapters have been concerned respectively with Spencer's social philosophy and his political philosophy. The present chapter will review his ethical philosophy as expounded in Social Statics, The Data of Ethics, and Justice. It is designed to serve as an introduction to a more detailed criticism of his third essay on Education.

The Search for a Scientific Basis for Ethics.

"Written as far back as 1842," Spencer tells us in the preface to The Data of Ethics, "my first essay, consisting of letters on The Proper Sphere of Government, vaguely indicated what I conceived to be certain general principles of right and wrong in political conduct; and from that time onwards my ultimate purpose, lying behind all proximate purposes, has been that of finding for the principles of right and wrong conduct at large, a scientific basis." This scientific basis Spencer professed to find in the natural process of evolution. But, as we proceed to show, his characteristic theory of ethics was already almost fully developed, as were his social and political philosophies, in Social Statics, a book which appeared nine years before the publication of The Origin
of Species. Consequently it would seem that the guidance furnished by the theory of evolution must have been of the most general kind. The fact of the matter is, however, that Spencer's ethical theory, even in its latest form, has little to do with the natural process of evolution at all. On the contrary it rests upon his inveterate individualism, garnished with a blend of hedonism, empiricism and intuitionism. The later expositions of it, in The Data of Ethics and Justice, are furnished with a good deal of evolutionary trapping, but it remains as it began -- a system of a priori individualism.

"Social Statics": 'Pure' Ethics.

The main features of the ethical system may be set forth briefly. As we have seen, the theory advanced in Social Statics depends upon a belief in progress as a natural law. Evolution will lead men ultimately to a condition of perfect equilibrium with their environment, a condition in which morality will have become 'organic' and all mankind will have become 'straight' men and women. 'Pure' ethics deals with this Utopia, in which Spencer assumes the greatest general happiness will exist. This pure science of ethics cannot, therefore, take account of evil of any kind. Meantime what we need is a kind of applied ethics. In order to secure practical guidance in the conduct of life, we must ascertain and conform to the general conditions which will lead to that greatest happiness which Spencer assumes it is the ultimate destiny of humanity to achieve. In other words, happiness must be
pursued not directly but indirectly.

Conditions of the Moral Life.

The essential conditions of life are first of all the social state, since "men have multiplied until they are constrained to live more or less in presence of each other." Hence "it follows that the men who are to realize this greatest sum of happiness, must be men of whom each can obtain complete happiness, without diminishing the spheres of activity required for the acquisition of happiness by others." The fulfilment of this condition is expressed by the word, justice. Justice, we learn, consists in the observance of the law of equal freedom. But greatest happiness cannot be achieved without certain other conditions being fulfilled. In addition to not trenching on one another's spheres, men must act so as not to cause unhappiness to others. This constitutes the observance of negative beneficence. Men must also be so constituted as to share sympathetically in the happiness of others, or else general happiness will not be so great as it might be. This constitutes positive beneficence. "Lastly," says Spencer, "there must go to the production of the greatest happiness the further condition, that, whilst duly regardful of the preceding limitations, each individual shall perform all those acts required to fill up the measure of his own private happiness" (complete living). This is prudence.

Conformity to these Conditions demanded by Applied Ethics.

These are the conditions which must be fulfilled
before greatest happiness can be achieved, and conformity to them is the proximate end of human life. "All approach to greatest happiness presupposes an approach toward conformity with them. Schemes of government and culture which ignore them, cannot but be essentially absurd. Everything must be good or bad, right or wrong, in virtue of its accordance or discordance with them. ...Greatest happiness is obtained only when conformity to them is spontaneous; seeing that the restraint of desires inciting to trespass implies pain, or deduction from greatest happiness. Hence it is for us to habituate ourselves to fulfill these requirements as fast as we can. The social state is a necessity. The conditions of greatest happiness under that state are fixed. Our characters are the only things not fixed. They, then, must be moulded into fitness for the conditions. And all moral teaching and discipline must have for its object to hasten this process."

Pre-eminence of Justice.

Of the four conditions of morality just specified—justice, negative beneficence, positive beneficence, and prudence -- the most fundamental is the first, justice. The other three are of "quite inferior authority" to the original law. "Instead of being like it, capable of strictly scientific development, they (under existing circumstances) can be unfolded only into superior forms of expediency," involving a quite impracticable calculus of pleasures and pains. They are very definite conditions of happiness for the ideal man; but meantime, since the ideal man does not exist, they are capable only of general application and do not admit of scientific development. Scientific ethics thus concerns itself chiefly with the development and application of the principle of justice.

It is to be noted that of these four conditions the
last three alone directly involve the notion of happiness and these three are of inferior authority to the first -- justice -- which does not directly imply happiness. Hence morality depends ultimately not on any direct calculation of happiness or unhappiness, but on the observance of the law of equal freedom. Spencer's system is, therefore, in the last analysis, not one of hedonism, but one which depends on an assumption of a law of individual liberty.

The Intuitive Basis of Justice.

This law of equal freedom is based upon a "Moral Sense" which gives the individual man an intuition of his liberty to exercise his faculties limited only by the like liberty of all. It may be inferred, according to Spencer, that "there exists in man what may be termed an instinct of personal rights -- a feeling that leads him to claim as great a share of natural privilege as is claimed by others -- a feeling that leads him to repel anything like an encroachment upon what he thinks his sphere of original freedom. By virtue of this impulse, individuals, as units of the social mass, tend to assume like relationships with the atoms of matter, surrounded as these are by their respective atmospheres of repulsion as well as of attraction. And perhaps social stability may ultimately be seen to depend upon the due balance of these forces." Not only, however, do men intuitively claim freedom for themselves, but they are also led to accord the same freedom to other men by a sympathetic affection of the instinct of personal rights. The instinct of
personal rights is, it is true, of itself entirely selfish, merely urging its possessor to maintain his own privileges. But the sympathetic excitement of it leads him to accord as much liberty to others as he claims for himself. "And thus," Spencer concludes, "in the average of cases we may safely conclude that a man's sense of justice to himself, and his sense of justice to his neighbours, bear a constant ratio to each other." In brief, the supreme moral law, the law of equal freedom, is made known to man by an instinctive intuition, and it is to be gradually conformed to by cultivating the subsidiary virtues of negative beneficence, positive beneficence and prudence.

"The Data of Ethics."

Such in outline were Spencer's published views on ethics when the Essay on Moral Education was written in 1858. As we have seen, the system is based on a conception of a future state in which evolution has ceased and individual man lives a life of perfect freedom limited only by an instinctive inclination to allow all other men the same freedom. His next work on ethics, *The Data of Ethics*, was published in 1879. In this, as we began by pointing out, he aimed at establishing a more strictly scientific basis for morality in the light of the new biological knowledge and the latest developments of the doctrine of evolution. If his views had undergone any essential alteration, it would not be appropriate to refer to them in connection with his theory of moral edu-
Goodness and Badness determined by the Completeness of Man's Evolution.

In considering The Data of Ethics we may at once pass over a good deal of the earlier chapters since they are concerned, like much of Spencer's ethical writing, not with a discussion of the end of human conduct — a strictly relevant ethical topic — but with a biological and sociological account of 'conduct in general' and 'the evolution of conduct.' We may begin by noticing that, in Spencer's opinion, "Ethics has for its subject matter, that form which universal conduct assumes during the last stages of its evolution." Conduct under its ethical aspects is to be judged good or bad "according as the adjustments of acts to ends are or are not efficient." But since "the entanglement of social relations is such, that men's actions often simultaneously affect the welfares of self, of offspring, and of fellow citizens," conduct to be good must simultaneously promote the fullest development of individual life "both in length and breadth"; make possible the rearing of healthy offspring; and further the complete living of one's fellows. In short, good conduct "simultaneously achieves the greatest totality of life in self, in offspring, and in fellow men." Spencer proceeds to ask whether there is "any assumption made in calling good the acts conducive to life, in self or others, and bad those which directly or indirectly tend towards death, special or general?" His answer is Yes, the as-
sumption is that life is worth living; and this, without any adequate attempt at proof, is the assumption he goes on to make. He proceeds further to identify the good with the pleasurable by pointing out that both optimists and pessimists agree that to call conduct good implies that it brings a surplus of pleasurable feelings. Hence the end of human life is once more capable of being defined as greatest happiness.

Happiness the Ultimate End of Life.

What we have now arrived at, then, is this. The moral end is not increase of life in self or others, not the perfect adjustment of actions to ends, but greatest pleasure or happiness. This is the same postulate as Spencer made in Social Statics, except that there it was identified with God's will or the Divine Idea. Here it appears to be based on the doctrine of evolution, but, of course, the doctrine of evolution cannot be used to settle the question of the end of human life, which is a question of values: it can only explain how, in fact, life does tend to develop. Spencer merely assumes that evolution works towards a condition of happiness.

Right Conduct Pleasurable: Wrong Conduct Painful.

According to Spencer, it follows from this assumption that "along with complete adjustment of humanity to the social state, will go recognition of the truths that actions are completely right only when, besides being conducive to future happiness, special and general, they are immediately pleasurable, and that painfulness, not only
ultimate but proximate, is the concomitant of actions which are wrong. So that from the biological point of view, ethical science becomes a specification of the conduct of associated men who are severally so constituted that the various self-preserving activities, the activities required for rearing offspring, and those which social welfare demands, are fulfilled in the spontaneous exercise of duly proportioned faculties, each yielding when in action its quantum of pleasure; and who are, by consequence, so constituted that excess or defect in any one of these actions brings its quantum of pain, immediate and remote."

Meantime, however, in man's incompletely adapted state, Spencer allows that, owing to changes in the environment, "in many cases pleasures are not connected with actions which must be performed, nor pains with actions which must be avoided, but contrariwise."

The Motives of Conduct.

Passing next from the biological view of conduct to the psychological, Spencer deals with the motives of conduct. These show an increasing development from immediate sensations of pleasure to the ideas of sensations to come: "there is an over-ruling of presentative feelings by re-representative feelings." "The more ideal motives concern ends that are more distant; and with approach to the highest types, present ends become increasingly subordinate to those future ends which the ideal motives have for their objects. Hence there arises a certain presumption in favour of a motive which refers to a remote good, in comparison with one which refers to a
proximate good."

Non-Moral Restraints.

This subordination of present ends to ends more remote illustrates the kind of development which the moral consciousness has undergone. The process of subordination has in man been aided by certain extrinsic restraints on conduct, of which there are three main kinds: political, religious and social. But according to Spencer, political restraints, religious restraints and social restraints are none of them moral: they are only "preparatory" to the moral control -- "are controls within which the moral control evolves."

Moral Restraints arise out of "Natural" Consequences.

What is the nature of the truly moral restraint? The paragraph in which Spencer explains it is so important for its bearing on the doctrine of punishment by natural consequences that it may be given in full. "For

now we are prepared to see that the restraints properly distinguished as moral, are unlike these restraints out of which they evolve, and with which they are long confounded, in this -- they refer not to the extrinsic effects of actions, but to their intrinsic effects. The truly moral deterrent from murder, is not constituted by a representation of hanging as a consequence, or by a representation of tortures in hell as a consequence, or by a representation of the horror and hatred excited in fellow men; but by a representation of the necessary natural results -- the infliction of death-agony on the victim, the destruction of all his possibilities of happiness, the entailed sufferings to his belongings. Neither the thought of imprisonment, nor of divine anger, nor of social disgrace is that which constitutes the moral check on theft; but the thought of injury to the person robbed, joined with a vague consciousness of the general evils caused by disregard of proprietary rights. Those who reprobate the adulterer on moral grounds, have their minds filled, not with ideas of an action for damages, or of future punishment following the breach of a commandment; but they are
occupied with ideas of unhappiness entailed on the aggrieved wife or husband, the damaged lives of children, and the diffused mischiefs which go along with disregard of the marriage tie. Conversely, the man who is moved by a moral feeling to help another in difficulty, does not picture to himself any reward here or hereafter; but pictures only the better condition he is trying to bring about. One who is morally prompted to fight against a social evil, has neither material benefit nor popular applause before his mind; but only the mischiefs he seeks to remove and the increased well-being which will follow their removal. Throughout, then, the moral motive differs from the motives it is associated with in this, that instead of being constituted by representations of incidental, collateral, non-necessary consequences of acts, it is constituted by representations of consequences which the acts naturally produce. These representations are not all distinct, though some of such are usually present; but they form an assemblage of indistinct representations accumulated by experience of the results of like acts in the life of the individual, super-posed on a still more indistinct consciousness due to the inherited effects of such experiences in progenitors; forming a feeling that is at once massive and vague."

The feeling of moral obligation in general originates in an abstract sentiment of duty generated (a) by the authoritativeness gradually felt to be possessed by remote benefits over present benefits, and (b) by the element of coerciveness present in the non-moral restraints of religion, social approbation and political laws. As man becomes perfectly adapted to his environment, the restraints of religion, political government, and public opinion will pass away, and with them the sentiment of duty will likewise disappear. Men will be moral as a matter of course, in total disregard of the approval of their fellow beings or of the Divine Being.

Viewed next from the point of view of sociology, the perfection of morality involves a transition from the militant to the industrial form of society, which, as we have seen, was a characteristic postulate of Spencer's
social theory. In the completely industrialised society justice will be observed in the requirement that "the units shall not directly aggress on one another;" negative beneficence will be observed in so far as the units will not "indirectly aggress by breaking agreements;" and positive beneficence will be practised in "spontaneous efforts to further the welfare of others."

Agreement between "Social Statics" and "The Data of Ethics."

These requirements, it is to be noted, serve to bring Spencer's ethical theory into line with that of Social Statics. Despite the appeal to evolution, despite the biological, psychological and sociological analogies, ethics rests, as it did before, on the basis of the principle of justice, with the subsidiary principles of prudence, negative beneficence and positive beneficence; and it is made to refer for a standard to a perfectly evolved society composed of 'straight' men and set in the remote future. In explaining the genesis of this Utopia the biological factors of evolution -- the struggle for existence, natural selection of those fittest to survive, the elimination of the unfit, etc., -- are not made use of so much as is the assumption of progress as a universal law of life.

Egoism and Altruism.

In considering the relation between egoism and altruism in this perfect society, Spencer concludes that egoism and altruism will be completely reconciled. Social life will so develop sympathy that altruism will come to
be spontaneous and will yield the same gratification as egoism. "From the laws of life it must be concluded that unceasing social discipline will so mould human nature, that eventually sympathetic pleasures will be spontaneously pursued to the fullest extent advantageous to each and all. .... In natures thus constituted, though the altruistic gratifications must remain in a transfigured sense egoistic, yet they will not be egoistically pursued -- will not be pursued from egoistic motives." This would appear to mean that selfishness will be disguised as unselfishness; or, in other words, the individual will be pursuing his own ends under the guise of promoting the ends of his fellowmen; for Spencer goes on to say "though pleasure will be gained by giving pleasure, yet the thought of the sympathetic pleasure to be gained will not occupy consciousness, but only the thought of the pleasure given." Apparently the thought of the pleasure given will not be consciously pleasurable. If that is Spencer's meaning it is difficult to understand how pleasure will be gained by giving pleasure, unless 'unconsciously.' In any case, it seems that altruism is only a form of egoism, and that the individual's pleasure is the real end. This appears even more clearly in a significant passage in a rough draft of the chapter on Conciliation which Spencer published as an appendix to *The Data of Ethics*. He says there, "In a proportion as, with the advance of society to a peaceful state, there increases the form of social life which consists in mutual exchange of services— in proportion as it becomes to the advantage of the individual, and to the prosperity of the society, to regard
other's claims and fulfill contracts — in proportion as the individual comes to be aided in leading a more complete life, by possessing a nature which begets friendship and kindly offices from all around; in such proportion does there continuously tend to take place both a strengthening of the altruistic emotions directly in the individual, and the increase of those individuals who inherit most largely the altruistic nature."

The Scope of Ethics.

Concluding The Data of Ethics, Spencer divides the scope of ethics into two parts, individual or personal and social. Social ethics again subdivides into two: (a) according as conduct does or does not "interfere with the pursuit of ends by others"—just or unjust conduct; and (b) according as it actively or passively conduces to other's welfare—positive or negative beneficence. Each of those divisions must be considered first as a part of Absolute Ethics and then as a part of Relative Ethics. But only one division is capable of scientific development, namely, that which deals with the non-interference with the rights of others, which, as in Social Statics, Spencer terms Justice.

"Justice."

We now pass therefore to Part IV of The Principles of Ethics, Justice (1891). After an attempt to trace the evolution of justice from animal life through sub-human life to human life, Spencer proceeds to show how the sentiment of justice originates. "Beginning with the joy felt in ability to use the bodily powers and gain the resulting benefits, accompanied by irritation at direct interferences, this gradually responds to wider relations,"
and finally constitutes 'the egoistic sentiment of justice,' which is "a subjective attribute which answers to that objective requirement constituting justice—the requirement that each adult shall receive the results of his own nature and consequent actions." The altruistic sentiment of justice comes into existence as a result of a pro-altruistic sentiment of justice compounded of four varieties of fear, partly social and partly pre-social, namely, fear of retaliation, fear of social dislike, fear of legal punishment and fear of divine vengeance. With the development of gregariousness and sociality also, altruistic sympathy arises and forms the basis of the altruistic sentiment of justice. In course of time from those two sentiments there somehow or other gradually emerges the idea of justice. "The idea," says Spencer, "gradually emerges and becomes definite in the course of the experiences that action may be carried up to a certain limit without causing resentment from others, but if carried beyond that limit produces resentment."

Justice means Observing the Law of Equal Freedom.

The idea of justice is therefore compounded of two sentiments, an egoistic and an altruistic—feeling for one's own rights and respect for the rights of others. Thus the formula of justice must comprise these two elements, a positive and a negative. "It must be positive in so far as it asserts for each that, since he is to receive and suffer the good and evil results of his actions, he must be allowed to act. And it must be
negative in so far as, by asserting this of everyone, it implies that each can be allowed to act only under the restraint imposed by the presence of others having like claims to act. ... Hence that which we have to express in a precise way, is the liberty of each limited only by the like liberties of all. This we do by saying:—Every man is free to do that which he wills, provided he infringes not the equal freedom of any other man."

Supreme Authoritativeness of Justice.

This law Spencer regards as a fundamental law "deducible from the conditions to be fulfilled, firstly for the maintenance of life at large, and secondly for the maintenance of social life," and as being "an immediate dictum of the human consciousness after it has been subject to the discipline of prolonged social life." Then "accepting the law of equal freedom as an ultimate ethical principle, having an authority transcending every other," he goes on to deduce from it, as in Social Statics, the various rights which the individual man has to exercise the faculties and the limits of State "interference" with these rights. This application of Justice is not substantially different from that made in the work published forty years previously.

Criticism.

The cardinal weakness of Spencer's ethical theory is its dependence on a conception of a fully evolved state of society composed entirely of "straight" or ideal men. That a condition of complete equilibrium between man and his environment is ever likely to be reached it is difficult to conceive; and it is certainly impossible to predict what that state is likely to be. Spencer's formula
for evolution in general — a progress from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity — does not help us much. We are not much enlightened with regard to the nature of moral conduct, for example, by being told that a moral man pays his debts promptly, keeps his appointments, is trustworthy, and in general behaves in a coherent way; or that the conscientious man is exact in all his transactions, supplies precise weight for a specified sum, tells the truth, keeps the marriage contract scrupulously, and in general behaves in a definite way; or, that the civilised man not only satisfies his personal needs, but attends to the needs of wife and children, undertakes social responsibilities, plays an active part in politics, cultivates the higher faculties both intellectual and aesthetic, and in general behaves in a more heterogeneous way than the uncivilised man.

Evolution is a different process for man from the adaptation to environment which goes on among animals. That is because man's environment is essentially different from that of the animals. It is psychical as well as physical, and therefore it is enormously more complex. It is different for different races of men, and different, indeed, for every individual man. Complete adaptation would mean a different kind and degree of adaptation for every single human being, unless eventually every man becomes like every other man — a universe of Robots. Not only so, but man unlike the animals, or to an incalculably greater degree than the animals, is continually
changing the environment. It is impossible to conceive that he would ever cease to wish to alter it, and therefore complete adaptation becomes impossible. The end state which Spencer looks forward to would, if it ever came, be a state of stagnation and death, not a state of complete living. Yet it is on this fanciful assumption that Spencer's whole system of ethics professes to be based.

As we have shown, it merely professes to be based on evolution. In reality it is founded on a conception of Justice as a self-evident law of social life. Spencer, it is true, regards Justice as simply an extension among civilised human beings of the law of survival of the fittest among lower animals. But the two laws are essentially different. Among animals the process of natural selection according to fitness for survival -- incidentally involving much interference with individual "rights" --admittedly operates: among civilised human beings it manifestly does not. Nor does Justice, which means the observance of the Law of Equal Freedom, at present meet with universal acceptance. Even Spencer admits this. The Law of Equal Freedom is a law which will run universally only when men are perfectly adapted to their environment, physical and social. For the present it reduces itself to a law which, in Spencer's opinion, ought to be observed. Thus it is not a "natural" law depending on the evolutionary process, but a man-made "ought," which a prejudice in favour of individualism has led Herbert Spencer to elevate into "an ultimate ethical principle, having an authority transcending every other." All the bio-
logical studies of the years intervening between *Social Statics* and *Justice* have not essentially modified the position which Spencer was led to adopt in the days of his youth, when he set out to specify "the conditions of human happiness," and to develop the first of them, namely the law that "every man has [= should have] freedom to do all that he wills, provided he infringes not the equal freedom of any other man." The only major difference between the two sets of views is that in *Justice* the Moral Sense postulate is superseded by a "sentiment of justice" merging into an "idea of justice," partly as a result of individually acquired experience of the social resentment caused by certain forms of aggressive action, and partly as a result of the inheritance of acquired racial experience to this effect.

That Spencer himself was aware how little the theory of evolution had counted for in the development of his views appears from a significant passage in the Preface to *Negative and Positive Beneficence* in which he says, "The Doctrine of Evolution has not furnished guidance to the extent I had hoped. Most of the conclusions, drawn empirically, are such as right feelings, enlightened by cultivated intelligence, have already sufficed to establish."

It was a damaging confession; and Spencer lost no time in modifying it. In the Preface to Volume II of *The Principles of Ethics* issued subsequently, it appears thus. "If it be said that throughout the final divisions of Ethics, dealing with Beneficence, Negative and Positive, the conclusions must, as above implied, be chiefly empirical; and that therefore here, at any rate, the Doctrine of Evolution does not help us; the reply is that it helps us in general ways though not in special
ways. In the first place, for certain modes of con-
duct which at present are supposed to have no sanc-
tion, it yields us a natural sanction -- shows us
that such modes of conduct fall within the lines of
an evolving Humanity -- are conducive to a higher life,
and are for this reason obligatory. In the second
place, where it leaves us to form empirical judgments,
it brings into view those general truths by which our
empirical judgments should be guided -- indicates the
limits within which they are to be found."

Even if we grant for the sake of the argument that
pleasure or happiness is the chief end of man, it does not
follow that the more evolved life is, the happier it is.
The cause of evolution may, for all we know, be marked by
a progressive dulling of both pleasure and pain, until
finally total unconsciousness of either develops. "Why,"
asks Sidgwick, "should not unconsciousness, 'without one
pleasure and without one pain,' be the ultimate end of
evolution? Why should not actions become instinctive and
mechanical?" Spencer assumes that progress is a law of
life and that progress will lead to a condition of great-
est happiness -- all pleasure and no pain.

It is the weakness of this assumption that impairs
the value of his discussion of the moral consciousness
and the moral motive. There will be no moral conflicts
for the ideal man. He will do right as a matter of
course; not because he wills to do so, but because he can-
not help doing so. He will have no feeling of obligation
or duty -- no moral consciousness. Meantime, all that im-
perfect man can do, while awaiting the natural cause of
evolution, which he is powerless to control, is to prac-
tise subordinating 'extrinsic' motives to 'intrinsic'
motives. No act is morally right unless it is done with
foresight of its naturally necessary and remote consequences. The individual must not be guided by representations of religious, legal or social restraints, nor must he be guided by a moral ideal with which he identifies himself, but by the representations of the consequences of his conduct to himself, to his family and to his fellow-men. By and by, if men practise acting in this way, in the course of generations their descendants will inherit predispositions to act thus, and morality will become easy and effortless.

There is a palpable confusion in this way of looking to the natural process of evolution for a standard of conduct and at the same time exhorting men to act so as to hasten the desired consummation. If evolution tends to bring about the ideal society, it will do so whatever men do here and now. If men must be induced to guide their conduct by foresight of 'intrinsic' rather than 'extrinsic' consequences, then evolution obviously does not, in fact, guarantee the emergence of that ideal society. It is not legitimate to look to evolution to provide the moral end and at the same time employ the moral end as a means of guiding evolution towards the end one would like it to achieve.

Passing over that question, let us consider Spencer's trick of contrasting "extrinsic" restraints (religious, legal, social) with "intrinsic" restraints (foresight of natural consequences). It is a false antithesis. One may detect in it the influence of his very imperfect realisation of the nature of society and his prejudice in
favour of individualism. Religious, political or social
restraints are as much intrinsic as that constituted by
foresight of personal benefits or harm to come, for the
individual in his ideal nature is not opposed to other
individuals or the Divine Being, but is one with them.
Accordingly the restraints they exercise are his restraints.
Men are not, unless they are of the baser sort, restrained
from doing wrong by the presence of a policeman or the
fear of divine wrath to come. They are restrained because
the social disapproval or the divine disapproval is disap­
proval of which they themselves approve, disapproval with
which they identify their own better selves. The social
code or the religious code is one to which their own
reason assents. Social disapproval with, in certain cases,
its machinery of legal punishment, is a means of bringing
the offender back to a way of life more in accordance with
his own true nature, and is not a mere external means of
coercion. If men were law-abiding merely through fear of
the policeman, or moral merely from dread of public opin­
on, every second person would need to be a policeman and
all private conduct would be immoral. It is therefore a
misleading antithesis to contrast as extrinsic restraints
constituted by fear of divine displeasure or social dis­
approval with the intrinsic restraints made up of mental
representations of loss of happiness inflicted on others
or diminished fulness of life on self. The one set are
as intrinsic and natural as the other, and if a man is
moral because he identifies himself with a moral code,
fear of breaking that code is surely an intrinsic motive
and a natural constituent of his moral consciousness.

Enough has been said by way of criticism of Spencer's theory of right and wrong conduct to make it clear that it was not the doctrine of evolution, pre- or post-Darwinian, which inspired his views, but a preconceived prejudice in favour of individual rights. Once again, as in the case of his social and political philosophy, the key to his point of view is to be found in Social Statics. His system is not primarily one of hedonism nor one of utilitarianism but a system based upon, and sustained by, a fervent belief in individualism, and that individualism stands out most clearly and unambiguously in the book which Spencer published at the age of thirty.

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See also General Bibliography.
CHAPTER XI.

PUNISHMENT BY NATURAL CONSEQUENCES.

The Criterion.
Nature and the Natural.
Alleged Advantages of Punishment by Natural
Consequences.
The Illustrative Cases.
The Maxims.
The Nature of Morality.
When Spencer came to write the Essay on Moral Education in 1858, his approach to the subject was somewhat different from that adopted in Social Statics. In the latter, as we have seen, his views were coloured by the conception of a final stage of evolution in which education would no longer be necessary, and children would "naturally" and spontaneously develop into completely moral beings. Education should, Spencer advised, eschew coercion and go to work through the sentiments on the task of forming the type of character which deduction from the laws of life showed would be typical of perfectly evolved man. So far as it goes, then, this early discussion is at least positive and constructive. Parents are to cultivate friendly relations with their children and endeavour to develop the sentiment of sympathy, or feeling for the rights of others (the germ of the "Moral Sense"), in order to foster self-control. Self-control, like other qualities of mind, is best developed through exercise; and children ought therefore to be encouraged to practise self-discipline as much as possible.

In Moral Education, on the other hand, the discussion has in view the world as it is, not as it will be in
an ideal future. The recommendations are concerned almost entirely with punishment and are therefore negative: not how to promote good conduct, but how to punish bad conduct.

The Criterion.

Conduct is not to be judged according to the approval or disapproval it meets with from parents, but by its results, immediate and remote. "From whatever assumption they start," Spencer announces, "all theories of morality agree 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. The ultimate standards by which all men judge behaviour, are the resulting happiness or misery."

Now in interpreting this dictum we must remember that happiness is convertible into pleasure, and misery into pain. As we learn later in The Data of Ethics, "there is no escape from the admission that in calling good the conduct which subserves life, and bad the conduct which hinders or destroys it, and in so implying that life a blessing and not a curse, we are inevitably asserting that conduct is good or bad according as its total effects is pleasurable or painful." Hence we arrive at the central thesis of the chapter, namely that the pleasures and pains that are the necessary consequences of actions are Nature's method of moral discipline and ought to be followed by educators. If this is hedonism, it is hedonism in the interests of individualism. Spencer is at pains to impress upon us that "the truly instructive and salut-
ary consequences are not those inflicted by parents when they take upon themselves to be Nature's proxies; but they are those inflicted by Nature herself."

Before we proceed to examine the application of this theory, it is well to point out that we have no warrant for assuming that "Nature" has any interest in moralising human beings. Spencer assumes that evolution makes inevitably for progress -- progress in morality as well as progress in the degree to which men are adapted to their environment. It remains a mere assumption. Pleasures and pains may have become associated with acts respectively beneficial and harmful to life, but that does not make the acts either moral or immoral. Morality is a human conception and needs to be evaluated in terms of human judgements and human standards. It is social not natural. In other words, ethics deals not with the "is", but with the "ought to be"; and the "ought to be" has a meaning only when expressed in human terms and human values.

Nature and the Natural.


"When a child," says Spencer, "falls, or runs its head against the table, it suffers a pain, the remembrance of which tends to make it more careful. ....If it lays hold of the fire-bars, thrusts its hand into the candle-flame, or spills boiling water on any part of its skin, the resulting burn or scald is a lesson not easily forgotten. .... Now in these cases, Nature illustrates to us in the simplest way, the true theory and practice of moral discipline." Here we have certainly one meaning
commonly attributed to Nature. The consequences which the child suffers are those which follow inevitably from contact between the physical nature of things and the psycho-physical nature of a human being. In such "bodily injuries and their penalties," according to Spencer, "we have misconduct and its consequences reduced to their simplest forms." If those were the only sort of 'natural consequences' which Spencer looked to discipline children, he would be at least consistent. But no sooner does he proceed to illustrate Nature's reaction than the meaning of Nature undergoes a fundamental change.

The child who makes a litter is to suffer the consequence of having to rectify the disorder, since "the labour of putting things in order is the true consequence of having put them in disorder." The small boy who tears his clothes in a hedge must suffer the consequence of having to repair the rents himself. The little girl, continually late for her walk, is punished by the 'natural' consequence of being left behind. In these cases we discover that Nature, being powerless to apply her own reactions, is forced to have recourse to human agents in nurse and parents.

Passing now to later life, we find that "it is by an experimentally-gained knowledge of the natural consequences, that men and women are checked when they do wrong." The idle youth suffers the "natural penalty" of being discharged and having to undergo the evils of a relative poverty. The unpunctual man has only his unpunctuality to blame for his inconveniences and losses.
The profiteer 'naturally' loses his customers; the inattentive doctor, his patients; the too credulous creditor and the over-sanguine speculator, their money. It is true that in these cases Nature has to rely on "social discipline," but this social discipline is analogous to "Nature's early discipline of infants." It is not the approval or disapproval of his fellows which serve to discipline the adult, but the consequences of his conduct which fall upon the individual himself. We notice that here again, however, Nature has had to invoke the aid of human agency.

Finally, for the more serious case of theft, Spencer has to admit that Nature is obliged to employ two man-made consequences: first, that of making restitution; and second, the grave displeasure of parents -- "a consequence which inevitably follows among all peoples civilized enough to regard theft as a crime."

It must be apparent to everyone -- though Spencer tried to hide it from himself -- that the Nature which inflicts a burn as a consequence of holding a finger in a candle-flame is different from the Nature which makes a child pick up his scattered toys, discharges an idle apprentice, or ruins a careless physician. Much more is it different from the Nature which, once a theft has been discovered, enforces restitution and manifests grave displeasure. The truth is that in all senses except the first Nature has ceased to mean inorganic nature and has come to mean human nature. The consequences have ceased to be natural reactions and have become social reactions;
which, let it be admitted freely, are quite appropriate penalties, because they are the kind of penalties which are in force among people "civilised enough to regard theft as a crime."

It is surprising to what extraordinary expedients Spencer resorted to in order to get over the need of bringing social agencies to bear on the moralising of man. For example, in the passage from The Data of Ethics quoted in our last chapter, we saw that the truly moral restraint on theft was not the fear of imprisonment, nor the dread of divine displeasure, nor even the social disgrace suffered by the known thief: it was the thought of injury to the person robbed, "joined with a vague consciousness of the general evils caused by disregard of proprietary rights." Similarly the truly moral deterrent from murder consisted of an imagined idea of the "necessary natural results — the infliction of death agony on the victim, the destruction of all his possibilities of happiness, the entailed sufferings to his belongings." The moral motive, Spencer says, consists of the imagination of the consequences which acts naturally produce on others. This imagination will be painful to the person who performs the acts, and this pain is the true moral deterrent.

Now in criticism of this, we may point out that the disapproval, resentment or retaliation of those offended against is as "natural," if not as "necessary," as the sympathetically imagined pain of the offender. For the time being, whatever may be the case in the remote future, they are more efficient moralisers than the purely selfish
and imaginary sufferings of the tender-minded, altruistic egoist of Spencer's Utopia. Spencer certainly allows that religious, legal and social restraints do play a part in the evolution of the moral consciousness. Together they constitute one of the two elements in the feeling of moral obligation or duty; but that is a temporary feeling destined to pass away when evolution is complete. The perfectly adapted man will have no feeling of duty or moral obligation; he will be automatically and spontaneously moral. Whether this is or is not conceivable, it is hardly necessary to decide; for meantime we have to do only with men in process of evolution, and in their case social approval and disapproval or resentment are assuredly 'natural' consequences of certain acts and are clearly of the utmost value in the moral education of mankind.

Alleged Advantages of Punishment by Natural Consequences.

Most of the advantages which Spencer brings forward in support of his system are highly doubtful. In the first place, he says, natural reactions are proportionate to the offence: a slight accident brings a slight pain; a more serious one, a severe pain. Now proportionateness to the offence is just the quality which natural consequences usually lack, but which social penalties may be so adjusted as to possess. Of two urchins who go sliding on a forbidden pond, one may fall through the ice and be drowned, while the other may enjoy an afternoon's sport in perfect security. Both reactions cannot be proportionate to
the same offence. Again the same result may mark quite different offences, for natural consequences cannot take any account of motives. One child may quite accidentally injure his companion with an open knife, and another inflict a similar injury in a fit of temper. Ought the punishment to be the same in both cases? Is there any natural reaction?

Spencer assures us that Nature's consequences are constant, direct, unhesitating and not to be escaped. This is precisely what in many cases even of "physical sins" the natural consequences are not. Spencer mentions elsewhere cases of eyesight ruined for life through over-study. Leaving aside the question of the proportionateness of the consequences of what is on Spencer's theory undoubtedly "wrong" conduct (as leading to unhappiness and diminishing physical efficiency), we may affirm that the result is not direct; it is not constant; and it is in many cases escaped. Too often the natural consequences are so slow and insidious that they are not apparent until it is too late for the 'culprit' to reform.

That natural consequences produce a right conception of cause and effect will only be allowed by one who accepts Spencer's peculiar theory of morality — a theory which, as we have seen, rules out all ideal ends, and reduces the criterion of right and wrong to mere fitness or unfitness of the organism to survive. Doubtless it is advisable that children should learn what consequences to expect when they experiment with the physical environment; but the physical laws of cause and effect have little
similarly objection may be taken to the claim that the discipline is one of pure justice. Nature, according to human standards, is notoriously unjust, and even Spencer is forced to counsel interference with her punishments. "A three-year old urchin playing with an open razor cannot be allowed to learn by this discipline of consequences; for the consequences may be too serious."

More defensible are the claims that by avoiding arbitrary punishment and making the penalty appropriate, or, to use Bentham's term, "characteristical," the tempers of both parents and children are less likely to be ruffled, and as a consequence their relationship will be friendlier and more sympathetic. But the parents must make the consequences appropriate; it cannot be left to Nature. Spencer admits the need of cultivating sympathy between parent and child, since sympathy is essential to beneficent control. For Nature has no sympathy; and it is only the anthropomorphism of the savage which makes him dread offending her.

Thus the advantages claimed for discipline by natural consequences turn out to bear not even the most lenient scrutiny, and not even to be consistently maintained by the author of the system himself.

The Illustrative Cases.

In considering the changing meaning which Spencer attaches to Nature, we have already had occasion to notice that the natural consequences specified as appropriate in the illustrative cases chosen by him are not
really natural. The "natural" consequence of a child's having made a litter is to revel in the disorder thus created and to add to the amusement by increasing it. The consequence eventually is that the toys lie around until perhaps they are lost or broken. For the child to be made to collect them, or to be denied the use of them subsequently if he refuses, may be appropriate enough, but it is not "natural." The "natural" consequence of being late for a walk is to set out correspondingly later. If the child is left behind, it is because his elders show a "natural" resentment towards unpunctuality or disobedience in children. A boy who breaks his pocket-knife or loses it through carelessness "naturally" experiences the results of being deprived of it; but even the sternest of parents may consider the penalty too severe to mark the fault and be induced to circumvent "Nature" by replacing it. The boy who breaks his sister's doll and feels no sorrow or remorse will naturally seize the opportunity of breaking other toys unless the parents step in and enforce restitution, or mark their disapproval by some physical punishment. Again the boy -- it is usually the boy who misbehaves -- who tears his new suit naturally has to wear a torn suit which no known natural process, apart from human agency, will repair.

Even less "natural" are the penalties in adult life. Idleness is naturally pleasurable, and were it not reprobated by social disapproval and resulting inconvenience,
it would no doubt remain in great favour. The punishment suggested by Spencer as appropriate for theft depends on the thief's being discovered. The natural consequence of stealing is that of enjoying the stolen goods. The murderer who goes undetected is not likely to be adequately punished by the mental representation of the deprivation of life and happiness he has inflicted on his victim or the misery he has occasioned his dependents. Doubtless all these and similar offences have a natural consequence in the deterioration of the offender's character which they ultimately produce, but that deterioration is too slow and too inconspicuous to serve either as a punishment or as a means of protecting society and marking its sense of disapproval.

The Maxims.

When we come to consider the scattered maxims which conclude Spencer's essay and are regarded by him as deducible from the principles he has laid down, we cannot help being aware how difficult it is even for Spencer to keep within his own theory. In the second maxim, for example, parents are warned not to behave as mere passionless instruments of punishments which Nature is unable to execute for herself. Parental approbation or disapprobation is also, we are told, a natural reaction and should accompany the other penalties. And yet this accompaniment of feeling is obviously only a mere by-product of a system which is efficient in its absence; for have not parents been forbidden to act as Nature's proxies and
advised rather to step aside and allow these consequences to be experienced which would inevitably follow in the absence of social approval or disapproval?

The other maxims, sound enough in the main, contemplate a system not very different from that usually employed in the upbringing of children. Parents are to be consistent, albeit sparing, in their commands; to execute punishments previously threatened; to make allowance for the child's immaturity, which Spencer thinks will disappear as the child recapitulates the race's development; to aim at fostering self-control by passing from absolutism to abdication; and finally to welcome the appearance of considerable self-will on their children's part. They are further enjoined to practise analysing their child's motives so that their control may be modified to suit the child's individuality. Why they should need to practise such analysis or to study human nature, if the physical consequences of conduct constitute the best punishment, Spencer does not say.

The Nature of Morality.

In later life Spencer was at pains to refute the suggestion that he had borrowed the idea of punishment by natural consequences from Rousseau; affirming that

*Note: Spencer has often been regarded as a disciple of Rousseau. For example, Compani in the Preface to his volume on Spencer says, "We are acquainted with no more genuine disciple of the author of Emile than the writer of the charming essay on Education. ... The whole book is full of inspiration from Rousseau, despite the fact that he is never mentioned in it."

This called forth a letter of protest from Spencer. It seems not unlikely that Spencer may have met with
he had never read the Emile and owed none of his ideas on education to it. He might have spared himself the trouble. No one who had followed his writings carefully and who understood Rousseau would have accused Spencer of plagiarism. Despite a superficial resemblance, the underlying theories of the two thinkers were quite different. According to Rousseau, punishment by natural consequences was to be employed in Emile's case only during the preadolescent years when, in Rousseau's opinion, the individual is at the pre-social stage of his development and therefore non-moral. According to Spencer, punishment by natural consequences appeared to offer a means of reconciling the needs of education with a belief in individualism. Spencer's pupil would never become really social: Rousseau's was being educated to take his place in society. Rousseau distrusted the existing society and was anxious to re-mould it nearer to his ideal of what society should be, but he had a very true belief that society was a necessary and natural institution responding to needs which lay at the very heart of man's real being. Spencer, as we have seen, regarded society as certainly an inevitable condition of man's existence but one which had the idea of punishment by natural consequences in the pages of George Combe, the phrenologist. See the latter's "The Constitution of Man considered in Relation to External Objects." First edition, 1828. Seventh edition, Edinburgh, 1856. But Spencer was no slavish imitator or sedulous student of other men's books.
effect merely of limiting the individual's natural rights to "complete living" by enforcing the observance of the Law of Equal Freedom.

Hence to Spencer, socially-inflicted punishment must have seemed, like government, "the offspring of immorality" — something to be avoided or at least to be dispensed with as quickly as possible. The sooner the child could be trained to guide his conduct by foresight of the "necessary natural consequences," the better. These necessary natural consequences were, of course, the so-called intrinsic restraints constituted by representations of the ultimate pleasure or pain likely to be inflicted on self, offspring or fellow beings. There was no higher moral law than that which prescribes compliance with Justice; and Justice meant the right of the individual to exercise the faculties compatible with equal right to exercise their faculties on the part of others.

This lack on Spencer's part of any appreciation of a moral purpose implicit in the social consciousness blinded him to a necessary difference between the moral education of children and the moral discipline of adults. Children, it is apparent, need to be moralised; that is to say, in their case the training must be positive and constructive. Even when they are punished, they are punished with an educative and positive purpose — to arouse in them an appreciation of the moral law. Adults, on the other hand, who have undergone this education and who have reached an age of maturity may be presumed to be able to distinguish between right and wrong, to be in possess-
ion of moral standards. When they fall short of their own ideal, they may be presumed to suffer the inward disappointment of vows unrealised. Certain kinds of wrongdoing may even be appropriately punished by the law, and the punishment may be regarded as a demonstration that they have sinned against the light within them. The emphasis has shifted from the positive side to the negative, although the implied hope always is that punishment even of adults will be reformative, not vindictive nor merely deterrent. To Spencer, however, the process is the same for the infant as for the adult. Nature, not society, will moralise children, if only Nature is allowed free scope; though one may reasonably ask why Nature should need to be allowed free scope, and whether parents and society are not "natural."

"... Nature is made better by no mean, But nature makes that mean: over that art Which you say adds to nature, is an art That nature makes."

In fairness to Spencer, it must be remembered that, owing to his belief in the inheritance of acquired characters and his view of education as a passing necessity, he looked forward to the time when children would be born good and capable of developing spontaneously into ideal citizens of an ideal State. But in the meantime, as he admits, children are not born good owing to the imperfections of their parents. And they have moreover to be prepared for a still imperfect world. What is to be done? Submit them to the discipline of natural consequences? Even Spencer cannot consistently advise compliance with
his own theory. Even less can those who take a different view of the nature of morality. Let us agree with Spencer that parents and teachers should not take upon themselves to be Nature's proxies. Let us affirm in opposition to Spencer that they must take upon themselves to be society's proxies; and society's proxies only because the social consciousness is held to embody at its best the moral law, the law which the most highly developed reason recognises as that which ought to guide man to the realisation of the best that he has it in him to become. Parents are therefore, in so far as they educate rightly, the embodiment for the child of the moral law, and their approval or disapproval implies moral judgement of the child's conduct. If they proceed to express the approval or disapproval in reward or punishment, the rewards and punishments are not Nature's reactions but outward expressions of moral judgements.

The aim of moral education is to instil the ethical code in the minds of children, so that when they come to maturity they may identify their wills with it and make it their guide. As children they are not to be expected always to act as adults are expected to act: they require training, guidance and direction. Thus moral education is, as we have already pointed out, a positive process based, it may be, largely on habit-forming. Spencer regards it as necessarily a negative process based on discipline and punishment.

We may concede that even under the best system pun-
ishments of some kind will still be necessary. What then is the nature of punishment and what forms should it take? We may note, in the first place, that natural reactions have no moral quality. Even when they are experienced, their moral value, if they have any, lies in this, that they serve as a reminder that a moral law as well as a physical law has been transgressed. For example, if a parent allows a disobedient child to cut himself with a forbidden knife, the penalty, to be of use morally, must be felt by the child to be a penalty of disobedience, not simply a necessary consequence of applying sharpened metal to the human integument. Or, to take one of Spencer's examples of so-called natural consequences, the child who is compelled by his nurse to pick up his scattered toys must have been previously forbidden to create disorder and must realise that the penalty is an outward expression of the nurse's disapproval of his disobedience. It follows therefore, in the second place, that punishments must clearly convey this moral disapprobation to the understanding of the child. Parent or teacher must embody for the child the moral law; and their punishment should be such that it will stimulate in the child a feeling of dissatisfaction with himself, not merely one of resentment against his elders for gratuitous interference with his own self-will. If the relationship between child and parent is such as Spencer desiderates, disapproval will probably be in itself sufficient punishment, without the addition of any material
consequences. In the third place, most of children's offences do not arise out of disregard of physical laws; consequently they entail no necessary natural reactions. They are offences against a social code, and they have to be punished, if punished at all, by social agencies. Finally, punishment must be so adjusted as to take into account the motive underlying the offence. No purely natural reaction is capable of doing this. But social punishments have just this advantage: they can be made to fit the offender rather than the offence. The punishments may be made "characteristical," if the parent or teacher decides that a punishment analogous to the offence is likely to be more effective in the interests of moral education. In fine, Spencer's method of moral education through the discipline of natural reactions is no method. It is merely a device which may on occasion help the parent to choose a suitable punishment after he has determined, on moral grounds, that some punishment is called for.

If now we proceed to ask what help Spencer's chapter on Moral Education affords to teachers, the answer is bound to be -- hardly any at all. In so far as his "method" is appropriate, its applicability is confined to the home, and even there it applies to offences which are scarcely moral -- "offences" arising out of the thoughtlessness and inexperience of children whose impulse of curiosity leads them to take undue liberties with their physical environment. The home no doubt was
the one institution simple enough to seem to conform to Spencer's ideal of an individualistic society. It is when Spencer goes beyond very early childhood, or considers more serious offences like lying or theft, that the system breaks down even in his own hands. He never gets the length of considering school offences. If he had, he would have been forced to realise that they carried with them no "natural" reactions, that they were offences against a social code, and that they could only be punished by social means.

We have seen therefore that where Spencer's punishments are appropriate, they are not natural, and where they are natural they are seldom, if ever, to be relied upon. The chapter affords a striking instance of how a man's social philosophy reflects itself on the views he holds on education and especially on moral education. The whole discussion is negative, just as Spencer's view of the functions of the State is negative and just as his principle of Justice is essentially a negative principle. The central topic of the chapter is punishment, and punishment must always at best involve an element of repression. It is apt in itself merely to check the outward expression of vice. Some more positive treatment is needed for the inculcation of virtue.

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CHAPTER XII.

THE AIM AND CONTENT OF EDUCATION.

Spencer's Educational Bias.
The End of Education.
The Activities which constitute "Complete Living."
Knowledge for Guidance.
(a) Direct Self-preservation.
(b) Earning a Livelihood.
(c) Bringing up a Family.
(d) Discharging the Duties of Citizenship.
(e) The Right Employment of Leisure.
Knowledge as Discipline.
Science as Poetical and Religious.
Conclusion.
Note on Spencer and Priestley.
CHAPTER XII.

THE AIM AND CONTENT OF EDUCATION.

Spencer's Educational Bias.

Consideration of the essay on "What Knowledge is Most Worth?" may fitly begin with an estimation of Spencer's educational bias, especially in its bearing on the opposition between the study of science and the study of humanities. We have already had occasion to note that Spencer's own education was predominantly scientific. During its earlier stages his father had forbidden any teaching of grammar or of English History; and throughout its whole course Spencer's repugnance to rote-learning and his dislike of dogmatic teaching had prevented his making any progress in the learning of languages. His contempt for the Classics was unconcealed; but it has to be remembered that it was a contempt based upon ignorance. He had no acquaintance with ancient literature even in translation. He recalls that he once tried to read a translation of the Iliad, but was unable to proceed beyond the sixth book, being wearied by the interminable descriptions of chariots and horses, and distracted by the lack of orderliness in the composition of the narrative. On several occasions he looked into Plato's Dialogues, but each time "with more
or less irritation" he was impelled to desist by im-
patience with "the indefiniteness of the thinking,"
the mistaking of words for things," and "the rambling
form of the argument." "To call that a 'dialogue',"
exclaims Spencer, "which is an interchange of speeches
between a thinker and his dummy, who says just what it
is convenient to have said, is absurd." "Still," he
is pleased to admit, "quotations from time to time met
with lead me to think that there are in Plato detached
thoughts from which I might profit had I the patience
to seek them out." The like, he thinks, is probably
true of other ancient writings; but of Aristotle he
knew "even less than of Plato."

The borrowing of "detached thoughts" which fitted in
with his own ideas describes very well Spencer's usual
practice in studying other men's books. He confesses
that except novels and travels in early life he read no-
thing continuously, being "an impatient reader." He once
began to study a translation of Kant's Critique of Pure
Reason, but speedily gave up reading when he found him-
self in disagreement with the author on his theory of
the nature of space and time. "It has always," he says
(p.253), "been out of the question with me to go on read-
ing a book the fundamental principles of which I entire-
ly dissent from."

Spencer's views on history are clearly enough ex-
pressed in the essay now under review. He disliked
entirely the personal element in history*, and could

* Note: In adult life. For his tastes as a youth, see
Chapter II of the present work.
never endure the reading of gossip about persons, alive or dead. "I take but little interest in what are called histories, but an interest only in Sociology, which stands related to those so-called histories much as a vast building stands related to the heaps of stones and bricks around it."

Poetry was not represented among the subjects prescribed for Spencer during his own formal schooling. In discussing his tastes for that type of composition, he mentions as the first essential the quality of variety, comparing it in the same sentence with variety in food—as ministering to one of his "organic needs." Ballads with recurring burdens were thus distasteful. A second requirement was intensity. "If the emotion is not of a pronounced kind, the proper vehicle for it is prose." Spencer liked "little poetry and of the best;" and he was of the opinion that no one ought to write verse if he could help it, but if it burst forth in spite of efforts to suppress it, it might be of value.

His critical propensities prevented him from enjoying pictorial or plastic art. Describing a tour in Italy, which he made in 1867 at the age of forty-seven, Spencer takes the opportunity of venting his "heresies concerning the old masters." These, he thinks, tend to be over-rated because of veneration for the Biblical subjects so frequently chosen. He finds all sorts of faults in Guido's fresco, "Phoebus and Aurora"; the form of the draperies is wrong; the "utter divergence from the

natural in respect of light and shade" is inexcusable; the torch carried by the flying boy radiates no light and is itself illuminated from without; and so on. "The first thing to be demanded of a picture," according to Spencer, "is that it shall not shock the perceptions of natural appearances -- the cultivated perceptions, I mean." Ancient sculpture, he thought, often failed in naturalness, the current opinion to the contrary notwithstanding; for Spencer no more pinned his faith on the opinions of a classically educated man about things Greek, than he pinned his faith on the opinions of a clergyman about things Hebrew.

Spencer, it must be conceded, was himself well aware that the dominance of the critical tendency seriously diminished his enjoyment of works of art. "Possibly," he says, "there are perfections in various paintings of the old masters which impress me but little, because I am keenly alive to the many mistakes of chiaroscuro which characterize them. These force themselves on my attention in a way which they would not do were there no such constitutional aptitude for seeing the imperfections. When looking at Greek sculpture, too, I constantly observe how unnatural and inartistic is the drapery. Though in a large measure I admire the more important parts of the works, my admiration is much less than it would be but for the vivid consciousness of this drawback. In some measure the like happens with music. Many years ago, when I attended the opera a good deal, I remarked to one who was frequently my companion -- George Eliot -- how much analysis of the effects produced deducts from the enjoyment of the effects. In proportion as intellect is active emotion is rendered inactive. And a like result necessarily accompanies criticism, since the critical process involves more or less the analytical process. So is it also with my appreciation of literature -- more especially poetry. In these various cases it is not that I am reluctant to admire -- quite the contrary. I rejoice in admiration; and rejoice when at one with others in their admiration. But it rarely happens
that the work of art of whatever kind is so satisfactory in every way as to leave no room for adverse comment."

In this passage of self-analysis Spencer undoubtedly places his finger on a serious defect in his character. Feeling and emotion were habitually repressed, intellect being predominant. For this one-sidedness his early experience and upbringing were largely to blame. His mother, as we have seen, was too self-effacing to count for much in Spencer's early development. His father, whether from ill-health or by nature, was hard and unsympathetic, though just and tolerant. Consequently Spencer's emotional nature was starved and repressed in childhood. Nor were there any brothers or sisters to call forth his sympathies and develop his affections. He was a lonely child brought up in an atmosphere of self-help and independence, free for the most part to follow his own inclinations, but encouraged to turn his attention to nature-study and scientific investigation, rather than to devote his time to the reading of literature or the study of the arts. It was a

*Note: "It seems probable," Spencer solemnly announces, "that this abnormal tendency to criticize has been a chief factor in the continuance of my celibate life." (Autobiography, II, 445.) He more than hints that, had not physical beauty been 'a sine qua non' with him, he might have married George Eliot. However, "it was an open secret that it was George Eliot who was in love with the philosopher, and when, on her death, newspaper paragraphs appeared implying that he had been one of her suitors he consulted my father about publishing the truth, the whole truth and nothing but the truth. 'My dear Spencer, you will be eternally damned if you do it,' replied my father." -- Beatrice Webb, "My Apprenticeship", p.31 note.
misfortune, also, that during adolescence his education showed the same bias in favour of science, and the same neglect of literary pursuits, historical studies and the humanities generally.

The absence of any real acquaintance with history made Spencer, as he acknowledges, tend to undervalue the past. He made no pretence of ever mastering the reasonings and conclusions of others, even in those disciplines which he attempted to reform. Occasionally he made hurried researches in books for facts unobtainable elsewhere, but he never tarried to learn what use his authorities had made of them. This intellectual arrogance, combined with a total neglect of other's opinions led to serious defects in his own work, and constituted but an ill equipment for one who would reform the school curriculum, or reshape the end of education. Spencer's own experience was apt to be the measure of all things; and in particular, as we proceed to point out, it led to a one-sided insistence on the merits of science and a glorification of knowledge, combined with a neglect of the appreciation subjects, literature included, which minister to man's emotional and aesthetic nature, and open the doors to the whole world of social experience.

The End of Education.

Spencer begins his discussion of what knowledge is of most worth (as one who seeks to reform the curriculum must begin) by defining the aim of education. Departing from his earlier definition of it as the formation of
character, he expresses it in utilitarian terms as "preparation for complete living." As a general statement, the phrase is admirable. Difficulties and disagreements arise only when we seek to determine in more specific terms what "complete living" implies. To Spencer "complete living" means primarily the completest possible exercise of the individual man's faculties -- the highest development of individual life both in length and breadth. But since the individual has also to make provision for the preservation of the race, -- though the ultimate end is "individual self-preservation," -- complete living includes secondarily the bringing-up of a family, and preparing off-spring in their turn for complete living.

Finally, "establishment of an associated state, both makes possible and requires a form of conduct such that life may be completed in each and in his off-spring, not only without preventing completion of it in others, but with furtherance of it in others." In short, "evolution becomes the highest possible when the conduct simultaneously achieves the greatest totality of life in self, in off-spring, and in fellow men." Complete living therefore depends on the observance of the Law of Equal Freedom, involving the principle of Justice, tempered by a due admixture of altruism and negative and positive beneficence.

It is when we read the formula in this way and remember Spencer's biological standpoint and his individualism, that we begin to have doubts as to its adequacy as a statement of the end of education. We have already
had occasion to note in considering his view of the relation of individual and society that the question, What Knowledge is of most worth?, which forms the title of his essay can best be understood by being expanded into What knowledge is of most worth to the individual man with a view to his ultimate physical and economic efficiency. It is this one-sided emphasis on the individualistic aspect of "complete living" to which objection must be made. "Complete living" demands not only physical or economic efficiency but social efficiency as well; and social efficiency implies that the individual has been trained to take his place among his fellow citizens and play his part in the community life of neighbourhood, city or State. That the full social life may be man's natural medium for the realisation of his rational or universal self -- his real self as distinct from his actual self -- Spencer, owing to his preoccupation with "natural rights" and his endeavour to comprehend all evolution in a single abstract formula, could not perhaps be expected to realise.

The Activities which constitute "Complete Living."

As we have shown in a previous chapter (Chapter V), Spencer endeavoured to make an analysis of life's leading activities by arranging them in five classes. The first comment suggested by this is that for the most part the classification is made from the point of view of the adult, whereas education is concerned primarily with the child. A child has little or no interest in the propagation and
upbringing of a family, in the earning of a livelihood, or in judicious voting at the next election. In the second place, granting that as a rough classification the list covers life in "the widest sense", we may dispute the assertion that the activities thus classified stand in their "true order of subordination." Spencer was no Aristotelian, but even he tells us elsewhere that life is not for work but that work is for life, and that the "progress of mankind is, under one aspect, a means of liberating more and more life from mere toil and leaving more and more life available for relaxation — for pleasurable culture, for aesthetic gratification, for travels, for games." Neglecting for the present this highly debatable view of the purpose of leisure, we may note, first of all, that it is true that leisure is more valuable than labour for the adult, much more is it true in the case of the child. Childhood is the time when the individual is shielded from the stress of economic necessity in order that he may be educated in the most liberal sense. It is the time when, according to Spencer himself, much must be given and little demanded; and often it is the only period during which preparation may be made for the profitable use in later life of that leisure of which, again according to Spencer, more and more may be expected as man's "progress" continues.

Spencer insists that education should prepare for each of those groups of activities, but it is clear that he regards vocational preparation as most important and the leisure activities as of least value. Literature
and the fine arts are merely the relaxations and amusements which serve to occupy leisure hours. They are of value to the individual because they raise the tide of life: complete exercise of faculties involves the utilization of "those various sources of pleasure which Nature and Humanity supply to responsive minds." Architecture, sculpture, painting, music and poetry are the 'efflorescence' of civilised life. They are made possible by the other activities which are more immediately concerned with individual and social welfare. It would therefore be a great mistake for the educator to neglect the plant for the flower. The individual has first to fulfil his duties to self, family and fellow-men; and then the pleasure which he may take in literature and art has an "ethical sanction". Leisure pursuits must take second place to the other activities which are "ethically enjoined." According to Spencer, the motive for seeking culture is an altruistic motive: it arises from the desire to become a "pleasure-yielding person." Acquaintance with literature and the arts makes the individual more interesting socially and enriches his talk -- "in the absence of it conversation is bald." In short, man the social being means for Spencer man the sociable being.

We may admit that the arts flourish only when man has reached a stage in his development at which he has leisure time to spare after satisfying the primary needs of food, shelter and self-protection. So long as his energies are all absorbed in the pursuit of the bare necessities of life, artistic creation is out of the question.
In this sense, therefore, the arts represent the ef-
florescence of civilisation. But they are at the same
time the crown and symbol of civilisation; and because
education has as its aim to civilise the child, we demur
to Spencer's precept that as 'the arts occupy the leisure
part of life, so should they occupy the leisure part of
education.' We should rather urge that as they represent
the highest level of human achievement, being products of
the highest stage of man's development, so should they
constitute a most important part of the education of the
child.

Although the essay under discussion is somewhat
vague as to the actual time to be given to leisure subjects,
there is no doubt that Spencer desired to cut down the
literary culture normally included in education. "That a
fair amount of this [literary culture] should be in-
cluded in the preparation for complete living," he
tells us later, "needs no saying. Rather does it need
saying that in a duly proportioned education, as well
as in adult life, literature should be assigned less
space than it now has. Nearly all are prone to mental
occupations of easy kinds, or kinds which yield pleas-
urable excitement with small efforts; and history,
biography, fiction, poetry, are, in this respect, more
attractive to the majority than science -- more at-
tractive than that knowledge of the order of things at
large which serves for guidance." It is under "Amuse-
ments" that he allows a place in life for the aesthetic
enjoyment of fine scenery, pictorial and plastic art,
poetry, fiction, the drama and music. These all yield
pleasure "resulting from the superfluous excitements of
faculties," but it is a pleasure often indulged in to
excess. "Perhaps," says Spencer, "such exaltation of feel-
ing as the reading of good poetry produces, is not
sought in an undue degree; but, unquestionably,
there is far too much reading of fiction; often excluding, as it does, all instructive reading, and causing neglect of useful occupations. While ethical approval must be given to occasional indulgence in that extreme gratification produced by following out the good and ill fortunes of imaginary persons made real by vivid character-drawing; yet there much more needs ethical reprobation of the too frequent indulgence in it which is so common; this emotional debauchery undermines mental health. Nor let us omit to note that while sanction may rightly be claimed for fiction of a humanising tendency, there should be nothing but condemnation for brutalizing fictions—for that culture of blood-thirst to which so many stories are devoted."

Spencer, it is apparent, had outgrown his liking for "thrillers"; and he had obviously never met with the conception of catharsis. A little more indulgence in the lighter kind of fiction might have purged him of some of the "repressions" from which he suffered.

Knowledge for Guidance.

We may now go on to consider how the individual is to be prepared for each of the five classes of activities comprehended under "complete living." First of all, however, we may draw attention to the undue emphasis on knowledge as a means of guiding the individual aright in the duties of life — an over-emphasis for which Spencer's own education was largely responsible. Spencer, the intellectualist, appears to think that right knowledge will guarantee right conduct. The importance of habit-formation, except for the acquirement of manual skill, is much underestimated. Yet in a subsequent work, "The Study of Sociology" (1873), Spencer finds himself impelled to devote a chapter to demonstrating how little influence knowledge has on conduct. Rational legislation,
we are told, must recognise as a datum the direct connection of action with feeling; to which must be joined the truth that cognition does not produce action. Nevertheless, says Spencer, the contrary assumption underlies all pleas for State education, which are founded on the notion that spread of knowledge is the one thing needed for bettering behaviour, neither will it guarantee skill in maintaining health and avoiding accidents, or skill in manipulating the raw materials of industry, or skill in the upbringing of children. Preparation for complete living is not to be had merely by imparting certain kinds of information, whether they are presented in their true order of relative importance, or not.

(a) Direct Self-preservation.

Even Spencer is forced to admit that direct self-preservation is so all-important that nature, unable to leave it to man's blundering, takes it into her own hands. To begin with, fear and the instinct of escape enable the infant to avoid the more obvious danger to life or limb; and thereafter the discipline of natural consequences is continually teaching the knowledge which subserves direct preservation of the body from mechanical injury. All that parents and "stupid schoolmistresses" need to do is to step aside and give free scope for the operation of this discipline. Besides physical injury, however, physiological injury must be guarded against. In discussing this aspect of self-preservation, Spencer passes rather abruptly from the infant to the adult. If men would only
give heed to the promptings of their sensations, Nature would see to this also. But so great is the ignorance of the laws of life that men do not even know that the sensations are their natural guides, and (when not rendered morbid by long continued disobedience) their trustworthy guides. Hence there arises the need for knowledge of the principles of physiology. Necessity may often compel men to transgress the laws of life, and inclination may frequently over-ride prudence; but much may be done by including in a rational education an elementary course of physiology, which will afford an understanding of its general truths and their bearing on conduct. In any case, it is far better to know the position of the Eustachian tubes, the actions of the spinal cord, the normal rate of pulsation and the means of inflating the lungs than to be well up in the "superstitions of two thousand years ago!"

Here we have but one instance of how the adult point of view betrays itself throughout the whole discussion. Yet Spencer has previously told us that Nature's method in education must correspond with the natural unfolding of the child's faculties. If he had applied this principle to the present case, it would have shown him, surely, that it is inadvisable, if not impossible, to teach physiology to a child. And perhaps a more profound knowledge of psychology would have indicated to him that it is not always beneficial to teach it to adults. Medical students, as Spencer elsewhere remarks, are not altogether prevented from taking risks of infection by their know-
ledge of the consequences of the disease.

Apart from the efficacy or otherwise of a knowledge of the science of physiology, it would seem that Spencer much underrates traditional knowledge and habits in matters of health. There is a popular wisdom, often imperfect, occasionally even pernicious, which yet on the whole proves a good guide in a sphere such as this where a little knowledge is a dangerous thing. No doubt traditional practices are sometimes faulty and need to be revised in order to keep pace with the advancement of science; but having in view the people at large, we may claim that tradition serves them well, and may be counted on to undergo the necessary revision in the general spread of education and the multiplication of the channels of popular enlightenment.

(b) Earning a Livelihood.

Preparation for the earning of a livelihood is to be given also by means of science-teaching. In considering Spencer's recommendations for this group of life's activities, it is more than ever necessary to scrutinise the ages of the pupils whom he has in view. The only specific reference is to "youths." Apparently, then, Spencer thinks that youths before leaving school should have some "grounding in science" in preparation for the later learning of a business, since all businesses (and Spencer gives an elaborate catalogue raisonné of the industries which depend on the various applied sciences) demand, if not a rational knowledge, at least an empir-
ical knowledge of one or other of the sciences. No objection could reasonably be taken to this recommendation if the interpretation here given is the correct one. Spencer appears to be merely pleading the claims of science to a place on the school curriculum; and when it was made, his plea was abundantly justified. "Had there been no teaching but such as goes on in our public schools, England would now be what it was in feudal times."

But the technical instruction which appears to have been in Spencer's mind has its proper place, not at the primary stage of schooling, but at the post-adolescent. Had Spencer made this clear, and had he refrained from putting science in so strong an opposition to the humanities, his advocacy of the cause of applied science would have been strengthened. England when he wrote was in the midst of the change over from small-scale to large-scale industry and was experiencing the labour troubles arising out of the introduction of steam-power and machinery and the consequent displacement of hand-workers. There was a widespread need, if not demand, for technical instruction, especially in the growing industrial cities; and the appropriate educational institutions were slow in coming into being. But it is one thing to argue for the teaching of science in technical colleges, or mechanics institutes, and another thing to seek to displace the humanities from the curriculum of secondary schools in general. And despite the ambiguity of the essay under notice, Spencer is not to be altogether absolved from such an imputation if one bears in mind his prejudices.
and his taunt that scientific knowledge has had to be picked up in "nooks and corners," "while the ordained agencies for teaching have been mumbling little else but dead formulas."

In any case, it is difficult to see how Spencer's ambitious programme could be carried out so as to leave reasonable time for other subjects. In the Ethics he speaks of the need of pupils' studying not only one special science but all sciences. Every occurrence, he says, involves at once mathematical, physical, chemical and vital phenomena so interwoven that to comprehend one set involves a partial comprehension of the others. Preparation for this or that business being far too special, the pupil needs a training in all the sciences. "When education is rightly carried on, the cardinal truths of each science may be clearly communicated and firmly grasped, apart from the many corollaries commonly taught along with them." Only after that has been done, ought special training to be given for any particular occupation.

Now this is unambiguous enough; but we may well ask what sort of scientific equipment pupils would possess if they were forced to master the "cardinal truths" of all the sciences. By rote-learning (which Spencer detests) they might get up the results of a number of sciences; but as for their comprehension of the scientific method, or their appreciation of the scientific outlook -- those useful qualities would still be far to seek.

(c) Bringing up a Family.

Preparation for the duties involved in the right up-
bringing of children affords Spencer a congenial opportunity (following Marcel) of exposing the ignorance of parents. Their equipment is faulty in three departments—the physical, the moral and the intellectual. As regards the first, Spencer gives us a summary of the recommendations of his essay on physical education, and denounces the fact that ordinary schooling makes no provision for equipping prospective parents with a knowledge of the laws of physiology. For moral training the one thing needful is acquaintance with the science of "Ethology"—a far more useful accomplishment than the ability to read Dante in the original or skill in translating Aeschylus. Ethology would inform the inexperienced and over-indulgent mother that the best discipline is the discipline of natural consequences; and prevent the too-stern father from alienating his sons' affections and making himself miserable in consequence of their rebellion. As regards the intellectual training of children, a preparation in psychology is needed, or at least a study of Spencer's Essay on Intellectual Education. This would show parents that book-knowledge is merely supplementary to that which the child acquires through spontaneous observation and exercise of the senses in nature-study and object-lessons. It would also show how method in education should eschew rote-learning; should be based as far as possible on self-discovery; should make instruction pleasurable; and should conform to the laws of mental development, advancing from the concrete to the abstract, from the empirical to the rational and from the particular to the general.
Once more, then, we find that for this third branch of the activities comprising complete living a knowledge of science is necessary; not an exhaustive knowledge but at least a knowledge, taught dogmatically if need be, of the general principles of the sciences specified, accompanied by explanatory illustrations. At what age this is to be given we are not definitely told, although from a reference to a puzzled antiquary of the remote future examining a batch of "college examination papers" which have chanced to survive as the sole vestige of our civilisation, we may infer that Spencer had in view the college stage of education.* If that is so, it is difficult to understand how the requisite knowledge could reach all parents, unless, of course, the State were to exercise its powers to compel all applicants for a marriage licence to produce a certificate of proficiency in the specified sciences. Such interference would, however, be a gross breach of the Law of Equal Freedom. Thus we are left with a mere general recommendation unaccompanied by any specific proposals for giving effect to it. In any case, Spencer much over-rates the capacity of the average parent to profit by a knowledge of psychology or applied ethics. Principles, even if accompanied by

* Note: Claude Marcel, one of Spencer's authorities for his essay on "The Art of Education" (1854) had written: "It is especially in youth that the future parent should imbibe the notions which he shall afterwards so much need. Education will reach its proper standard only when it is placed on a footing with the highest branches of knowledge. In schools for either sex, -- in colleges and universities, the science of education in its three departments should be regularly taught in connection with physiology, ethics, and
illustrative examples, serve for guidance only to the wise. The ordinary parent would find them confusing rather than enlightening and would be in a worse plight than before.

We may, on the other hand, agree with Spencer that affection and good-will are not alone sufficient to guarantee success in the rearing of children, though they furnish strong motives urging the parents to seek for information and guidance at a time when their interest is most strongly aroused. Granted a sound general education made compulsory by State authority, and we may expect parents to show more and more readiness to avail themselves of the services of child-guidance clinics or printed sources of information to supplement the ordinary practices handed down by tradition from generation to generation. Adolescent girls, too, may well receive a training in mothercraft before leaving school, though such training will need to be adjusted to suit the ages of the pupils concerned. It will not be confined to the exposition of the principles of the sciences of physiology, psychology and ethology, but will rather take the form of practical demonstrations of infant-care and child-nurture. In this respect, at least, Spencer's wishes are more and more being fulfilled in our State-schools.

mental philosophy, as is the practice in some German universities. It should be made an indispensable part of a complete course of instruction."—Marcel, "On Language, etc.," Vol.1,p.166, Sect.III -- Means of Enlightening Parents.
(d) Discharging the Duties of Citizenship.

The fourth group of activities is that comprising the duties of citizenship. Spencer's interpretation of the civic function seems to limit it to the exercise of the franchise in order to secure observance on the part of legislators of the "right principles of political action." These are presumably to be found in Spencer's own works and centre round the Law of Equal Freedom and the principle of non-interference by the government with the natural rights of the individual. "Ordinary school-training," Spencer wrote the following year, "is not a preparation for the right exercise of political power. .... The current faith in Reading, Writing and Arithmetic, as fitting men for citizenship, seems to us quite unwarranted: as are, indeed, most other anticipations of the benefits to be derived from learning lessons. There is no connection between the ability to parse a sentence, and a clear understanding of the causes that determine the rate of wages. The multiplication-table affords no aid in seeing through the fallacy that the destruction of property is good for trade. Long practice may have produced extremely good penmanship without having given the least power to understand the paradox, that machinery eventually increases the number of persons employed in the trades into which it is introduced. Nor is it proved that smatterings of mensuration, astronomy or geography, fit men for estimating the characters and motives of Parliamentary candidates."*

To save the country from the extension of the franchise, Spencer looked to the "spread, not of that mere technical and miscellaneous knowledge which men are so eagerly propagating, but of political knowledge; or, to speak more accurately -- knowledge of Social Science. Above all, the essential thing is, the establishment of a true theory of

* Note: Did anyone ever make such claims on behalf of parsing, multiplication, penmanship, geography and the rest?
government -- a true conception of what legislation is for, and what are its proper limits." The dangers can be prevented "only by establishing in the public mind a profound conviction that there are certain comparatively narrow limits to the functions of the State; and that these limits ought on no account to be transgressed. Having first learned what these limits are, the upper classes ought energetically to use all means of teaching them to the people."

Surely one means of teaching anything to the people is first of all to give them a grounding in reading, writing and arithmetic together with some knowledge of literature, history and geography. Spencer agrees that "by making the working man a good reader, we give him access to sources of information from which he may learn how to use his electoral power; and that other studies sharpen his faculties and make him a better judge of political questions." But he fears that he will read only literature that appeals to his prejudices and supplies him with fallacious arguments for the mistaken beliefs he naturally takes up -- the belief, for example, that the State ought to provide education or regulate the hours of labour.* Spencer would apparently keep the people ignorant of all ideas save those that the "upper classes ought energetically to use all means of teaching" -- a strange

*Note: Cf. also letter from Spencer to J.S. Mill (25th March, 1859) on the educational qualification for a vote. (Duncan, p.94).
position for the advocate of "natural rights" and governmental non-interference to assume!

The discussion in "What Knowledge is of Most Worth?" is, however, not so much concerned with the right ordering of civic life as it is occupied with a polemic against History as ordinarily taught in schools, and a justification of Spencer's view of it as material for a science of descriptive sociology. Spencer is strongly opposed to the "great-man-theory of history, tacitly held by the ignorant in all ages and in recent times definitely enunciated by Mr Carlyle"! This, he thinks, is the underlying theory of those who prescribe the kind of history commonly taught. It is far too much concerned with the biographies of monarchs ("and our children learn little else"), with court-intrigues, plots, usurpations and the personalities accompanying them, with details of battles and sieges and their attendant massacres and bloodshed, and with personal gossip of all kinds. He would substitute instead the "natural history of society", comprising the origin and nature of government, central and local, ecclesiastical and civil; the evolution of religious creeds; social customs; popular superstitions; the history of culture, art and morals; and the like. In short, "the only history that is of practical value, is what may be called Descriptive Sociology. And the highest office which the historian can discharge, is that of so narrating the lives of nations, as to furnish materials for a Comparative Sociology; and for the subsequent deter-
omination for the ultimate laws to which social phenomena conform."

Information is again lacking as to the age at which this science of Sociology is to be begun, or of how pupils are to be prepared for understanding it. In a later discussion, Spencer advises "each citizen" to try to obtain as much historical knowledge as is needed for "political guidance", and points out that sociological generalizations are mostly based upon facts presented by "those savage and semi-civilized societies ignored in our educational courses." He allows, however, that "there are also required some of the facts furnished by the histories of developed nations," and that while it is the impersonal elements of history which chiefly demand attention, "a certain attention may rightly be given to its personal elements." This is certainly a concession to the interests of the ordinary man and more particularly to the interests of the child; but it is hardly in that spirit that Spencer makes it. The real value of history for him lies in the insight it affords into the laws of social evolution. If a "certain moderate number of leading men and their actions may properly be contemplated," it is because "the past stages in human progress which everyone should know something about would be conceived in too shadowy a form if wholly divested of ideas of the persons and events associated with them. Moreover, some amount of such knowledge is requisite to enlarge adequately the conception of human nature in general -- to show the extremes, occasionally good but mostly bad, which it
Now it may be observed in criticism of this view that school-children are little interested in the laws of social evolution or the natural history of society, but they are capable of being interested in outstanding personalities of the past, who often express in their individual lives the spirit of the age in which they lived and sum up in their achievements the great ideas and great movements of whole periods of history. Spencer admits that history furnishes the material for sociological generalisations; and he has already told us that a right method in education demands that the teacher proceed from the concrete to the abstract, from the empirical to the rational. The facts must be known before the generalisations can be understood. Moreover, whatever may have been the case in Spencer's day, the present text-books on history as used in schools are far from being adequately described as compilations of the biographies of kings; though there has been no disposition to adopt in their stead the "dreary folios of the "Descriptive Sociology." "History with the human life taken out of it," as Ritchie remarks, "dead, dried, and sliced up into columns, not even written in construable English, might indeed be 'crammed up' for an examination, but with somewhat disastrous results on the intellect of the patient. ...If it is a mistake to think of the history of the English Reformation as if it were only the product of Henry VIII's change of wives, an account of the Great Rebellion, which relegates Charles I and Oliver
Cromwell to a thin column, is equally mistaken and misleading."

Apart from the question of what history to teach children and when to teach it, there is the further question of how it is to help the individual in the performance of his social duties. Spencer seems to think that men will be induced to vote more intelligently if they have previously mastered the "laws of social evolution". Once again his intellectualism betrays itself. The average voter does not award his vote on a calm scientific analysis of the arguments of political parties and a comparative survey of past political history. Nor does it appear likely that he ever will, especially if Spencer's further requirement be insisted upon, namely, that a competent knowledge of biology and psychology must be secured before history can be properly interpreted.

Another of Spencer's allied notions may here be examined. If it be allowed that the ordinary man should master the science of sociology to prepare himself for the duties of citizenship, what qualifications are we to look for in the legislator? This is a matter which Spencer discussed in two separate essays published respectively in 1857 and 1860. In the first, "Representative Government: What is it good for?", he advises legislators to get a knowledge of the social science "the science involving all others; the science standing above all others in subtlety and complexity; the science which the highest intelligence alone can master." The difficulty of the science being so great, it is not surprising that Spencer finds Members of Parliament wholly deficient in it. "That many of them are very good classical scholars is beyond doubt: not a few have written first-rate Latin verses, and can enjoy a Greek play; but there is no obvious relation between a memory well-stocked with the words talked two thousand years ago, and an understanding disciplined to deal with modern society. That in learning the language of the past they have learnt
some of its history, is true; but considering that this history is mainly a narrative of battles and intrigues and negotiations, it does not throw much light on social philosophy -- not even the simplest principles of political economy have ever been gathered from it." Spencer has no hesitation in asserting "that without a knowledge of the laws of Life, and a clear comprehension of the way in which they underlie and determine social growth and organisation, the attempted regulation of social life must end in perpetual failure."

In the second essay, "Parliamentary Reform: The Dangers and the Safeguards," the education of the governing classes is again found to be ornamental but not useful. "Do but take a young Member of Parliament fresh from Oxford or Cambridge, and ask him what he thinks Law should do, and why? or what it should not do, and why? and it will become manifest that neither his familiarity with Aristotle nor his readings in Thucydides have prepared him to answer the very first question a legislator ought to solve." Spencer's substitute for this education is, as before, the study of social science, which will show that Law ought to avoid interfering with the natural rights of the individual!

How ill-qualified Spencer was to judge of the value of a knowledge of history has already appeared. He was sure that had Greece and Rome never existed, human life, and the right conduct of it, would have been in their essentials exactly what they now are, determined in the same ways by the adjustment or non-adjustment of actions to requirements. This is the view of one who is unable to judge of the difference between a savage tribe with no history and a city-state conscious of its own aims and purposes, and impressing its thoughts and achievements upon the world throughout all subsequent ages. Both are regarded as equally capable of being carved up to fit the columns of a volume of Descriptive Sociology. The young graduate from the university steeped in his Aristotle and primed with instances from Thucydides is better equipped for an understanding of modern politics than the disciple of Spencer, who in his ignorance despises history as the gossip of Kings and the chronicles of the amourous adventures of their mistresses. A study of social philosophy is doubtless an excellent propaedeutic for the task of government, but it must be a more adequate philosophy than the biological sociology of Spencer, based upon a theory which regards society as a joint-stock, mutual protection company charged with the enforcement of contracts.
Having satisfied himself that Science is necessary for guidance in the more important of life's activities, Spencer arrives finally at the leisure time of life. This is the time for relaxation and amusement, for the enjoyments of Nature, of Literature, and of the Fine Arts, in all their forms. Important as these are, they must yield precedence to the afore mentioned pursuits; for, according to Spencer, the things which a person does in leisure time will not enable him to earn a livelihood, or prepare him for the up-bringing of a family, or equip him for voting intelligently at a Parliamentary election.

Spencer, as we have already noticed, is not prepared to value leisure time for its own sake, as a time when a person may hold communion with other minds through the medium of literature or art: leisure is of value only for amusement and relaxation, for that recreation which makes possible the adequate performance of the other, and relatively more important, duties of life.

Without implying agreement with this view, we may consider how the individual may best be prepared to enjoy those "relaxations and amusements." Again the answer is, through knowledge -- not knowledge of comparative literature or of the history of art, but scientific knowledge of the psycho-physical principles underlying literature and the arts. "Unexpected though the assertion may be, it is nevertheless true, that the highest art of every kind is based on Science -- that without Science there can be neither perfect production nor full appreciation."
Here are two separate assertions which may be considered independently.

(a) It is true that there is a science of art. There are general laws or principles discoverable in all artistic productions of the highest excellence. They are primarily psychological and secondarily physical or physiological principles. For example, the best musical compositions obey, or conform to, certain laws of melodic "motion" and harmony. Certain tonic intervals in music produce more complete consonances than others because of the psycho-physical nature of sound and its relation to the physiological structure of the end-organ of hearing. The same is true for pictorial art in the visual spheres of colour and form. We may grant that the best artists conform to those laws. But that does not necessarily imply that they do so consciously or of set purpose arising out of scientific knowledge of the principles. The artist creates; and if his creation is good, the analytical psychologist or critic may then proceed to lay bare the laws observed by his productions. Doubtless the artist prepares himself as well as he can by studying the things he depicts; but a picture is not a photograph, nor is a musical composition a phonographic record of a bird's song or of the natural language of the emotions. Spencer—somewhat irrelevantly, since the average man is not an artist—devotes considerable space to arguing that the artist should have a scientific knowledge of the physical laws of the object he represents. For example, the sculptor must study mechanics lest, like Myron, he carves a
figure which a Spencerian observer expects every minute will fall forward on to its face. The painter must study "physioscopicide", i.e. the science of the physical appearances of the objects represented -- "the rendering of the phenomena of linear perspective, of aerial perspective, of light and shade, and of colour in so far as it is determined not by artistic choice, but by natural conditions -- e.g. that of water as affected by the sky, the clouds, and the bottom." Similarly the musical composer must be familiar with the natural language of emotion, since, according to Spencer, music is but an idealization of that. The poet must pay attention to those laws of nervous action which excited speech obeys.

Spencer is on less disputable ground when he advises the artist to try to understand how the minds of spectators or listeners will be affected by the several peculiarities of his work. The good artist satisfies the aesthetic needs of those who contemplate his art, but it is more than doubtful whether he requires to be a scientific psychologist in order to do so. Spencer thinks that not only should the artist have an immediate perception or intuition of these psychological principles and their corollaries on which the appeal of his art depends, but he should have an understanding of them. Even then something is wanting: his equipment is not complete unless he has genius and inspiration. The artist of every type is born, not made; and "only when Genius is married to Science can the highest results be produced."

(b) As has been already remarked, that part of Spen-
cer's discussion scarcely concerns the educator, since the latter has to deal with pupils who are not born artists. For them appreciation is the important thing. Even here, however, we do not escape the clutches of the scientist. Science, it appears, is necessary for the full appreciation of the fine arts. Bearing in mind Spencer's own experiences, we may take leave to doubt it. The scientific attitude of mind is different from the aesthetic, and, in Spencer's case at least, the two were antagonistic. The predominantly analytical tendency of his mind destroyed for him a great deal of the pleasure and gratification he might have derived from literature and art. Of this, he was, moreover, well aware. "The inability of a man of science," he says, "to take the poetic view simply shows his mental limitation; as the mental limitation of a poet is shown by his inability to take the scientific view. The broader mind can take both. Those who allege this antagonism forget that Goethe, predominantly a poet, was also a scientific enquirer."

We may, however, agree with Spencer that the more cultivated enjoy art to a greater degree than the less cultivated, if by that he means that greater experience of literature and wider acquaintance with the qualities to be looked for in a work of art confer on their possessors a better understanding and a truer appreciation. These qualities are surely to be acquired by the systematic reading of good books and continuous practice in listening to fine music, or in contemplating noble pictures, statues or buildings, than by a study of the
sciences, physical, physiological or psychological, underlying those arts. In other words, preparation for the use of leisure, even for the purpose for which Spencer regards it as suitable, is not to be had through a study of science but through the cultivation of taste and the practice of the powers of appreciation.

Knowledge as Discipline.

We pass now to the question of mental discipline. Spencer does not doubt the possibility of certain kinds of information being able to confer a general mental training: he is concerned merely to discover what kinds of knowledge involve "a mental exercise best fitted for strengthening the faculties", and in particular whether scientific or linguistic knowledge is the more suitable for the purpose. Obliged to treat this part of the subject with brevity, he summarily decides that it would be "utterly contrary to the beautiful economy of Nature, if one kind of culture were needed for the gaining of information and another kind were needed as a mental gymnastic."

He finds that "the highest power of a faculty results from the discharge of those duties which the conditions of life require it to discharge." Hence "the education of most value for guidance, must at the same time be the education of most value for discipline." Nowadays, of course, the problem is neither so simply stated nor so easily solved; but Spencer has no difficulty in demonstrating to his own satisfaction that science is superior to linguistics for training the rational memory, cultivating the judgement and exercising the understanding.
In "The Study of Sociology" (1873) he shows in more detail how training in the Abstract Sciences*confers on the student a due sense of the "necessity of relation"; cultivation of the Abstract-Concrete Sciences, a consciousness of "cause and effect"; and acquaintance with the Concrete Sciences, conceptions of "continuity, complexity and contingency." But the real reason which induced him to prefer Science to the Humanities appears when he claims for it the power of conferring a moral discipline. Science, he says, makes constant appeal to individual reason: each person can test the facts for himself, and the pupil especially may be made to think out his own conclusions and submit every step in a scientific investigation to his own private judgement. In a word, science fosters "that independence which is a most valuable element in character." On the other hand, the learning of languages increases "the already undue respect for authority" and results in a "tendency to accept without enquiry whatever is established"—a tendency increased by the dogmatic method necessarily employed. Literature and history have similarly to be accepted by the pupil on authority: hence they too "encourage submissive receptivity instead of independent activity."

Spencer distrusts all knowledge which has a social origin.

*Note: The terms, Abstract, Abstract-Concrete, and Concrete, used to classify the sciences in Chapter I of "Education: Intellectual, Moral, and Physical" (1861), do not appear in the original Review Article (1859). They are the terms employed by Spencer in "The Classification of the Sciences" (1864) ("Essays," III pp. 1-56.).
and is based upon social experience. Consequently literature is regarded by him as coming under the head of "amusements": it is a recreative subject which helps to make the individual fit for more useful activities. That is its chief use; and Spencer pays but grudging tribute to its humanising value.

The schools have happily not seen fit to follow Spencer in thus belittling literary culture. On the contrary, they are tending to give more and more attention to the reading of vernacular literature as an essential part of a liberal education, and as a means of introducing the pupil to the inexhaustible store-house of national wisdom. The mental view is not narrowed but widened by being able to look out upon the world through the eyes of others; and a wise "recaptivity" is often the best preparation for an independent activity."

Science as Poetical and Religious.

Spencer concludes his glorification of science by claiming for it poetical and religious qualities. By saying that science is itself poetic, he means that the contemplation of nature gives food to the imagination and ministers to love of the beautiful. "Sad, indeed, is it to see how men occupy themselves with trivialities, and are indifferent to the grandest phenomena -- care not to understand the architecture of the Heavens, but are deeply interested in some contemptible controversy about the intrigues of Mary Queen of Scots! -- are learndly critical over a Greek ode, and pass by without a glance that grand epic written by the finger of God upon the strata of the Earth!"

It is this aspect of Science that confers upon it its
value as a religious culture. "True science and true religion," says Spencer quoting Huxley: "are twin sisters and the separation of either from the other is sure to prove the death of both." The student of Nature "sees that the laws to which we must submit are both inexorable and beneficent. He sees that in conforming to them, the process of things is ever towards a greater perfection and a higher happiness." The devotee of Science is led to realise the impossibility of comprehending the Ultimate Cause of things and humbles himself before the impenetrable veil which hides the Absolute and Unknowable. Here we have a summary statement of Spencer's own negative religion, if "an indefinite consciousness of an utterly unknowable reality" can be called a religion. "By continually seeking to know and being continually thrown back with a deepened conviction of the impossibility of knowing, we may keep alive the consciousness that it is alike our highest wisdom and our highest duty to regard that through which all things exist as The Unknowable."*

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* (1) Note: Cf. Marcel "On Language," I. p.78
"The Study of nature, presenting endless illustrations of the sacred volume, renders instruction the hand-maid of religion."
For further parallels between Spencer and Marcel, see Chapter XIII.

* (2) Note: Spencer was indebted to Huxley for other ideas besides this on the relation between science and religion. See, for example, Huxley, "On the Educational Value of the Natural History Sciences", an address delivered at St.Martin's Hall in 1854 and reprinted as a pamphlet the same year. (Republished in "Science and Education", pp.32-65.).

* (3) Note: This is "The Unknowable' with a capital U; a special entity to which Spencer expects you to take off your hat." -- Elliot, "Herbert Spencer", p.224, note.
Conclusion.

If we look to Spencer's essay for guidance in the actual drawing up of a school curriculum, as we are surely entitled to do, disappointment awaits us. Spencer never condescends to specify definitely the ages of the pupils he has in view when he prescribes the teaching of science as the knowledge of most worth. As we have seen, it is the adult whom he appears to be thinking of most of the time. But it is not even the average adult: it is the highly intellectual and logical adult who bases his whole conduct on rational principles. The ordinary boy is not able to make much use of the science of physiology in maintaining physical fitness; or of the applied sciences underlying industry in fitting himself to enter upon apprenticeship; or of psychology and ethology in preparing himself during boyhood for the important duties of parenthood; or of the science of sociology in anticipation of the privilege of exercising the franchise.

As regards preparation for the right use of leisure—one of the most important functions of the school -- Spencer's contribution is even more unsatisfactory. So far as it concerns the education of the ordinary pupil, it is a plea for the teaching of the sciences underlying the arts in the hope that the pupil will thereby be enabled the better to appreciate them. Literature and the arts, as the creations of the social mind at its best, are themselves neglected. Spencer's view of leisure, moreover, is misleading. He regards it as a time of mere relaxation
and amusement, worthless in itself and valuable only to the extent that it makes possible the performance of the more important duties of life. He does not recognise that leisure may be the time when the individual is most free, when he may achieve the fullest self-expression, and is most likely to be an end to himself, not a means to the end of others; and that preparation for the right use of leisure is therefore one of the most important aims of education.

The very idea of education as a preparation for future life inevitably leads to a neglect of the interests and capacities of the boys and girls who are to receive it. In his second chapter, Spencer aims at psychologising school method, but in this first chapter he betrays a strange inability to psychologise the subject-matter of the school course. Knowledge in scientific form is knowledge in adult form. The child is more interested in his personal life and experiences than in the logically formulated experience of the race. Remembering this, and remembering that it is one of Spencer's own maxims of method that "the genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race", we may wonder why Spencer should insist on teaching science in systematised form to children. He tells us elsewhere that "science has gradually emerged from the crude knowledge of the savage," which "served for simple guidance of life-sustaining activities." It ought therefore to follow that "crude" knowledge is
sufficient for the child, while science is a form of knowledge appropriate to the adult mind.

Again, the emphasis laid upon knowledge as the one thing needful for guidance shows Spencer's one-sided intellectualism. In the early stages of education, training is more important than instruction; and virtue depends a good deal more on the forming of right habits than on knowledge. There is no indication, either, in the present essay that pupils have hands as well as heads; or that besides determining what knowledge is of most worth, it also concerns the educator to determine what practical activities are of most worth. Spencer, it is true, comes nearer to appreciating this need when in the Ethics he advocates the teaching of manual skill. "That this is a proper preparation for life among those occupied in productive industry, will not be disputed; though at present, even the boys who may need it are but little encouraged to acquire manipulative skill: only those kinds of skill which games give are cultivated. But manipulative skill and keenness of perception ought to be acquired by those also who are to have careers of higher kinds. Awkwardness of limb and inability to use the fingers deftly, continually entail small disasters and occasionally great ones; while expertness frequently comes in aid of welfare, either of self or others."

This much later addition to Spencer's educational doctrine apart, there is no indication that preparation for complete living involves anything more than an encyclopaedic knowledge of the various sciences underlying the five groups of activities which "complete living" involves. There is no indication that adaptation to the environment in the case of man includes adaptation to a physical environment, or that man has a social heritage
as well as a biological inheritance. Neither is there any adequate realisation that man is a social being with a nature which must realise itself in a social milieu, and nourish itself on the spiritual food afforded by literature and the arts. The individual, living in complete isolation, would, as we have previously observed, cease to be a human being. Such a being would even cease to be a fit subject for education at all. Even the Robinson Crusoe individual imagined by Rousseau as fit for Emile's imitation in pre-adolescence, is a social being, separated for the time being from physical contact with his fellows, but not divorced from the 'plexus of ideas and sentiments' by which his individuality has been shaped. The Wild Boy of Aveyron would be a fitter pupil for Spencer to dose with science as a preparation for "complete living" than the Emile of Rousseau's romance. If it was a handicap for Spencer to have been brought up on science and deprived of most of the normal social contacts during youth, it is a greater handicap on the influence of his educational views that they are correspondingly biased by his individualistic outlook, and fail to appreciate the social side of education at anything like its true worth, or to value the humanities as entitled to a place on the school curriculum alongside the sciences, and, like the sciences, as capable of yielding "guidance" for the various activities involved in complete living.

Note on Spencer and Priestley.

An attempt has been made by H.G. Good ("Journal of Educational Research," Vol.13, No.5, May,1926,
pp.325-335) to prove Spencer's indebtedness for the argument of the essay on "What Knowledge is of Most Worth?" to the following works of Joseph Priestly: "Essay on a Course of Liberal Education for Civil and Active Life" (1760); "Remarks on a Proposed Code of Education" (1765); and "Miscellaneous Observations relating to Education" (1780). In the present writer's opinion the attempt does not succeed. As we have already seen (Chapter I) Spencer held substantially the same views on the relation of the State to education as Priestley and Godwin, and may have been acquainted with these eighteenth century writers and others of the same school. But although there are points of resemblance between Priestley and Spencer in their ideas of the aim and content of education, a perusal of Priestley's works on education, as above, produces on the whole a different impression from that obtained by reading Spencer's first chapter. Spencer's borrowings from Priestley, if any, seem to have been slight and unimportant. In the other three essays of Spencer there are references to authorities by name; and there does not seem to be any reason why Priestley should not have been cited in the first essay if there had been any conscious borrowing. Spencer had too few authorities on education not to wish to make the most of them. A much stronger case indeed could be made out for Claude Marcel and George Combe as the sources of many of Spencer's ideas. -- For Marcel, see next chapter; and for Combe, see "On Popular Education." (Lectures delivered to the Edinburgh Philosophical Association in April, 1833.);


"On Teaching Physiology and its Applications in Common Schools." (Pamphlet, 1857) The foregoing are reprinted in "Discussions on Education." By George Combe. (London, 1893). The last mentioned recommends the teaching of simple physiology (to "young persons of ten years of age and upwards") together with the "applications to practical conduct of which it is susceptible." See also "Education: its Principles and Practice." By George Combe. Edited by William Jolly. (London, 1879).

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See also General Bibliography.
CHAPTER XIII.

METHOD IN EDUCATION.

Spencer's Authorities.
Calude Marcel (1793-1876).
Pestalozzi (1746-1827).
Thomas Wyse (1791-1862).

General Criticism.
The Theory of Education: Mental Development.
(a) The Mind develops from the Homogeneous to the Heterogeneous.
(b) The Mind develops from the Indefinite to the Definite.
(c) The Genesis of Knowledge in the Individual follows the Same Course as the Genesis of Knowledge in the Race.

(a) Proceed from the Concrete to the Abstract.
(b) Proceed from the Empirical to the Rational.
(c) Encourage the Process of Self-development to the Uttermost.
(d) See that your Instruction creates a Pleasurable Excitement in your Pupils.

The Practice of Education.
Sense-Training.
Object-Lessons.
Nature Study.
Drawing.
Geometry.
Conclusion.
CHAPTER XIII.

METHOD IN EDUCATION.

Spencer's Authorities.

The chapter on Intellectual Education was the first of Spencer's four essays to be written. It is noteworthy for the frequency, relatively to the others, with which references are made to authorities. Of these there are mentioned by name, Marcel, Wyse, Pestalozzi, Fellenberg, Tyndall, Horace Mann and Professor Pillans. This list is, for Spencer, quite extensive; for it was not his habit to rely much on the work of previous writers. On the contrary, he rather prided himself on his originality. It would seem to be a legitimate inference, therefore, that in discussing method in education, he felt somewhat uncertain of himself and realised the need to document his argument with unusual care. The inference is partly justified by an investigation of the sources. While Fellenberg, Tyndall, Horace Mann and Professor Pillans are represented by isolated quotations, the references to Marcel, Pestalozzi and Wyse recur from time to time in the course of the discussion. These, it turns out,
are Spencer's principal authorities for his views on educational method.

**Claude Marcel (1793-1876)**

Claude Marcel was a Frenchman who lived a large part of his life outside of France and was thus induced to interest himself in the learning and teaching of modern foreign languages. While French consul at Cork, he published in English his chief educational work. This was "Language as a Means of Mental Culture and International Communication; or Manual of the Teacher and the Learner of Languages," by C. Marcel, Knt.Leg.Hon.: French Consul. (2 vols. London, 1853). The title of the work is hardly comprehensive enough. Marcel surveys the whole field of education, and devotes the first four books, comprising the greater part of his first volume, to a discussion of such topics as aim, method and curriculum. It is to this preliminary discussion that Spencer is most indebted; and from it that he borrowed, without acknowledgment, several of his "guiding principles" of method.

The agreement between Spencer and Marcel is not confined to the essay on Intellectual Education. For example, the two writers agree in their denunciation of the monopoly enjoyed by the Classics in education; in insisting on the need to determine the "relative importance" of

*Note: Cf. Marcel, I, p.146: "A young man, after the period of scholastic education, is ushered into the world with a smattering of one or two dead languages, and with but a scanty knowledge of his own; with vague notions respecting bygone ages and utter ignorance of passing events. He is apt to entertain an exalted opinion of classical learning, and a total disregard of modern sciences and practical good sense."
the "acquirements which a complete education should comprise" -- a task for which "until now materials were wanting;" in dividing education into its three branches, Physical, Intellectual and Moral; in advocating the study of "such branches of knowledge as best discipline the intellect and are of practical utility throughout life;" in thinking that while the "information most required by individuals varies indefinitely with their diversified pursuits in social life, ... that which offers the best prospect of being useful, and which should have precedence over the others is ... an acquaintance with the laws of nature";* in concluding that "utility is the test by which the value of instruction ought to be estimated"; in denouncing "the ignorance of parents on the subject of education"; in lamenting the fact that "neither at home nor at school is a single fact or principle taught, which has direct reference to the judicious fulfilment of offices which are to become the subject of [a parent's] anxious thoughts and feelings"; in condemning premature intellectual training whereby "both the minds and bodies of the little sufferers have been enfeebled by an over-exertion of the brain, when as yet imperfectly formed"; in opining that "intellectual precocity is but too frequently attended

*Note: Cf. Spencer, p. 106.

"It will by and by be found that a knowledge of the laws of life is more important than any other knowledge whatever -- that the laws of life underlie not only all bodily and mental processes, but by implication all the transactions of the house, and the street, all commerce, all politics, all morals -- and that therefore without a comprehension of them, neither personal nor social conduct can be rightly regulated."
by premature death or debility through life”; in finding that "what renders physical [science] studies most suitable to childhood, is their moral and religious tendency"; and so on. Such a list of agreements between the two writers, apart from the question of method, could be easily extended; but sufficient has been quoted to indicate the source from which Spencer derived many of the ideas which he proceeded to work into the context of his own thought or affiliate to his own personal experience.

On educational method the indebtedness is even more evident. In the essay, Marcel is quoted or referred to by name six times, but Spencer’s borrowings are more frequently unacknowledged. First and foremost, the idea of basing method on the laws of mental development and following the order of Nature is Marcel’s. "In aiming at the complete development of all the primitive powers of the child," says Marcel, "the educator should observe, as nearly as he can, the order of Nature"; and he further advises that "the educator should make himself perfect master of physiology, moral science, and mental philosophy; the instructor, especially, should study mental philosophy, which contains the fundamental principles of the art of teaching." "Education," he continues, "is, in fact, the most useful part of the science of the mind. It may be considered as a science in itself: it has its fixed laws, and the principles on which it is founded are drawn, by inductive reasoning, from the physical and intellectual organisation of man, as also from his social
condition; it demands, in order to be well understood
and properly applied, the deepest thought and most patient
investigation." Spencer, it is true, refers the principle
to Pestalozzi, but, as we shall show, his acquaintance
with Pestalozzi was limited to the extracts printed in
Biber's "Life"; and he at once goes on to quote Marcel in
support of Pestalozzi -- thus: "'The method of nature is
the archetype of all methods,' says M. Marcel."*

In the second place, the subjects which Spencer
chooses to illustrate his principles of educational method
accord closely with those recommended by Marcel, the agree­
ment extending even to the suggestions made as regards the
methods of teaching them. Marcel advises parents to be­
gin with sense-training. "The exercise of the senses,"
he tells us, "is essential as a means of intellectual edu­
cation; for primary ideas can be received only through
their medium: our sensations are, in fact, the origin of
our knowledge." "It is by varying the objects of percep­
tion," he continues, "that they [the senses] are cultivated

*Note: Spencer omits to give the second part of Marcel's
dictum, which is "and especially of the method of teach­
ing languages." It does not suit Spencer's purpose to
follow Marcel unreservedly.

Two further instances of incomplete quotation occur
in the essay. The first is on p.74 where Spencer, quot­
ing Marcel, says, "It may without hesitation be affirmed
that grammar is not the stepping-stone but the finishing
instrument." Spencer omits the rest of the sentence --
"by which we improve and perfect the practical knowledge
of a language we already know." The other is on p.85
where Spencer is quoting from Biber. In this case the
omission is without significance.
in all their diversities, and that the mind is, through
their means, stored with varied intuitive knowledge."
This accords with Spencer's recommendation that "we should
provide for the infant a sufficiency of objects presenting
different degrees and kinds of resistance, a sufficiency
of objects reflecting different amounts and qualities of
light, and a sufficiency of sounds contrasted in their
loudness, their pitch and their timbre." After sense-
training, Marcel advises conversational object-lessons,
quoting in support, Pestalozzi, Fellenberg and Pere Girard
of Fribourg. Spencer makes the same transition. "Pass-
ing on to object-lessons, which manifestly form a natural
continuation of the primary culture of the senses," Spen-
cer takes occasion to make his one criticism of Marcel
for asserting that a child should be shown how all the
parts of an object are connected. This injunction violates
one of Marcel's own principles of method (adopted by Spen-
cer) that education should be a process of self-instruction.
Passing over Marcel's discussion of arithmetic (which,
however, Spencer commends elsewhere) and his suggestions on
geography*and history, Spencer goes on to advocate nature-
study much in the same way as Marcel advises excursions
into the country. Drawing is the next of Spencer's ex-
amples. "Nature," says Marcel,"admirably favours the

*Note:
There is apparently a reference to Marcel's method
of teaching geography in Spencer (p.76) where the "use
of geographical models" is commended.
early learning of linear drawing: children, from the
most tender age, evince a strong desire to sketch famil­
lar objects in their most complete form; they delight in
imitations which speak to their imagination; but all inter­
est would be lost, if they were desired to draw only de­
tached parts of objects. We should, then, in this point,
follow the dictates of nature, and present at first to
the child complete but simple forms. In this, as in every­
thing else, the learner must pass gradually from the sim­
ple to the complicated. It is by attending to the general
outline of a model, whether an object or a copy, that the
eye is educated, that the proportions of the whole are
understood, that harmony is introduced in the arrangements
of parts, and that a bold and rapid execution may be ac­
quired." Thus Marcel. Spencer's more graphic version be­
gins as follows: "The spreading recognition of drawing
as an element of education, is one among many signs of
the more rational views on mental culture now beginning
to prevail. Once more it may be remarked that teachers
are at length adopting the course which Nature has per­
petually been pressing on their notice. The spontan­
eous attempts made by children to represent the men,
houses, trees, and animals around them -- on a slate
if they can get nothing better, or with a lead-pencil
on paper if they can beg them -- are familiar to all.
To be shown through a picture-book is one of their
highest gratifications; and, as usual, their strong
imitative tendency presently generates in them the
ambition to make pictures themselves also. This effort
to depict the striking things they see, is a further
instinctive exercise of the perceptions -- a means
whereby still greater accuracy and completeness of ob­
servation are induced. And alike by trying to interest
us in their discoveries of the sensible properties of
things, and by their endeavours to draw, they solicit
from us just that kind of culture which they most need."

Spencer, it is true, objects to the practice of drawing
from copies (as his father had done before him), but Marcel
permits it only as a supplement to drawing from nature. "It must also be borne in mind," he says, "that drawing from nature is one of the ends proposed; the objects themselves must therefore be early presented for imitation in their various aspects; this will accustom the eye to judge of their forms and proportions, as also of the effect of light and shade, better than could be done from drawings and paintings: but, as it is useful to study the manner in which artists have themselves represented these objects, the learner should sketch sometimes from nature and sometimes from approved original works." Wyse, another of Spencer's authorities, also objected to drawing from copies. "The imitation of an imitation in this [beginning] stage, is preposterous."

Wyse is Spencer's main authority for the teaching of geometry, but Marcel (possibly himself following Wyse, whom he names twice among his references) recommends the use of a collection of small geometrical solids in teaching the elements of geometry. With geometry, the list of subjects with which Spencer illustrates his principles comes to an end. We may be sure that, had space allowed, he would have proceeded to discuss the teaching of the various sciences in an analogous fashion, but it is not likely that he would have followed Marcel into a discussion of the teaching of languages, ancient and modern.

We may now go on, in the third place, to consider Spencer's seven guiding principles of method based upon the "mode and order of unfolding" of the faculties. Of the seven, only one is referred back to a previous writer,
Comte, who is credited by Spencer with having enunciated the parallelism between the genesis of knowledge in the individual and the genesis of knowledge in the race. The others are stated without reference to any authority. Most of them are borrowed or adapted from Marcel. In Book III, Chapter III, Marcel discusses the "Characteristics of a Good Method." After pointing out that, among other qualities, a good method favours self-teaching; is in accordance with nature; comprises analysis and synthesis; is both practical and comparative; and confers a mental discipline; Marcel proceeds to state summarily the "General Principles on which a Rational Method is Based." "Although," he says, "no method can be pointed out for the acquisition of any branch of knowledge, which would suit every individual and every circumstance, there are, nevertheless, general laws, deduced from the function of the human mind and from the nature of the knowledge to be acquired, which can be made to bear on the study." Marcel sets forth twenty of these "axiomatic truths of methodology", from which Spencer makes a selection to suit his own ideas. Here are the "axiomatic truths" of Marcel which are to be found embodied in Spencer's essay:-

1. The method of nature is the archetype of all methods, and especially of the method of learning languages.

5. Examples and practice are more efficient than precept and theory.

*Note: Quoted, in part, by Spencer, p.79.
"7. Instruction should proceed from the known to the unknown, from the simple to the complex, from concrete to abstract notions, from analysis to synthesis. *

"12. No exercise should be so difficult as to discourage exertion, nor so easy as to render it unnecessary: attention is secured by making study interesting.

"14. What the learner discovers by mental exertion is better known than what is told him. †

"15. Learners should not do with their instructor what they can do by themselves, that they may have time to do with him what they cannot do by themselves.

"20. Young persons should be taught only what they are capable of clearly understanding, and what may be useful to them in after life."

How close an agreement subsists between Spencer and Marcel on these maxims of method may be seen at a glance if we quote Spencer's own summary of his "guiding principles":

"The foregoing outlines of plans for exercising the perceptions in early childhood, for conducting object-lessons, for teaching drawing and geometry, must be considered simply as illustrations of the method dictated

* Note: Marcel says (p.209), "The reason of the inefficiency of synthesis is, that a knowledge of principles implying a knowledge of the particulars on which they are founded, principles and all abstract notions are difficult of comprehension and application to him who is unacquainted with those particulars."

Spencer states (p.90), Those who advocate the teaching of formulas "have forgotten that a generalization is simple only in comparison with the whole mass of particular truths it comprehends -- that it is more complex than any one of these truths taken singly -- that only after many of these simple truths have been acquired, does the generalization ease the memory and help the reason -- and that to a mind not possessing these single truths it is necessarily a mystery."

Cf. also Marcel, p.210. "In a rational method we should follow the natural course of mental investigation; we should proceed from facts up to principles, and then from principles down to consequences; we should begin with analysis and conclude with synthesis."

† Note:

Quoted by Spencer, p.122.
by the general principles previously specified. We believe that on examination they will be found not only to progress from the simple to the complex, from the indefinite to the definite, from the concrete to the abstract, from the empirical to the rational; but to satisfy the further requirements, that education shall be a repetition of civilization in little, that it shall be as much as possible a process of self evolution, and that it shall be as pleasurable."

The idea that the natural exercise of the faculties is pleasurable, that in consequence instruction which accords with the natural development of the mind will be pleasurable, and that "a final test by which to judge any plan of culture" is its capacity for creating "a pleasurable excitement in the pupils," is also to be found in Marcel. Man, says Marcel, "is the more prompted to exercise these faculties, the essential elements of his constitution, as their very action is a source of pleasure to him, -- a pleasure which increases, as they are invigorated by exercise. A want thereby arises, the satisfying of which calls for their constant activity. Thus has the Creator provided for their exercise, and pointed out to us the path we should follow."

**Note:** It is interesting to note the strong resemblance which Marcel's next paragraph bears to what we have found to be the guiding principle of Spencer's "Social Statics":- "Freedom is indispensable to man's perfectibility; he has, in consequence, been created a free agent, and he claims from society, as his imprescriptible right, that liberty of thought, of speech, and of action, without which he could not cultivate and completely unfold all his faculties. So deeply implanted is the innate sense of this right, that ages of oppression and slavery have been unable to root it out of the human heart" --Marcel, I. pp.5-6. Marcel's book appeared three years after Spencer's "Social Statics." Perhaps their indebtedness was mutual.
We have not yet exhausted the resemblances between Spencer and Marcel. For example, the idea of Spencer's opening paragraph, so often quoted, in which he draws a parallel between systems of education and social institutions can be found in germ in Marcel. "It is consistent," says the latter, "with despotic governments that the ferula of school tyrants should prepare children for the iron rod of their future political tyrants; but, in constitutional countries where every individual enjoys the noble privilege of a free man, the child must not be early taught that brute force is a principle of government; he must not acquire notions and habits incompatible with the dignity and duty of a freeman." "Along with political despotism," says Spencer, "stern in its commands, ruling by force of terror, visiting trifling crimes with death, and implacable in its vengeance on the disloyal, there necessarily grew up an academic discipline similarly harsh -- a discipline of multiplied injunctions and blows for every breach of them -- a discipline of unlimited autocracy upheld by rods and ferules, and the black-hole. On the other hand, the increase of political liberty, the abolition of 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 hindered by fewer restraints, and other means than punishment are used to govern him."

In his reference to the "eventual failure of juvenile prodigies"; to "plans based on the spontaneous process followed by the child in gaining its mother tongue"; to "that intensely stupid custom of teaching grammar to children"; to the employment of "the ball-frame for the first lessons in arithmetic"; to the need for teaching particular truths before the generalizations based on them; -- in all these respects Spencer shows further...
agreement with Marcel.

If, however, we have thus sought to trace the origin of Spencer's views on educational method to a writer whom he names from time to time in his discussion, it is not with a view altogether to impugn his originality. As we have already remarked, the inference that Spencer felt the need in this essay of relying on previous writers is only partly justified. It happened that many of Marcel's suggestions fitted in well with Spencer's own views, or could be adapted to fit the general view of evolution -- which included mental evolution -- that was already taking shape in his mind. Spencer borrowed only what he approved; and in using Marcel he took care to pass over the latter's arguments for nationalising education, and for the teaching of language, literature and history. In one important respect, indeed, Spencer failed to avail himself of Marcel's guidance. The latter, apparently following Rousseau, is at pains to lay down the "four educational periods of youth" -- Infancy (0-6), Childhood (6-12), Adolescence (12-16), Puberty (16-21) -- as a preliminary to the drawing up of the appropriate courses of study. Spencer neglects altogether to specify the ages of the pupils he has in view -- a defect which, as we have seen, diminishes the value of his views on "What Knowledge is of Most Worth." Spencer's

*Note: It seems likely that the influence of Marcel, himself a disciple of Rousseau, accounts for the similarity between many of Spencer's ideas and those of the "Emile."
whole thought on education would have gained in effectiveness if he had kept the ages of the pupils constantly in view when he set down his recommendations for reforming the content and method of instruction. But Spencer hardly ever thinks of education in terms of the child.

**Pestalozzi (1746-1827).**

Spencer was unable to read German. Thus even if there had been no other source of information, we might have felt sure that it was an English work on Pestalozzi to which he had recourse. However, Biber's "Life of Pestalozzi" is one of the books which appear at the head of the original review-article on "The Art of Education" in "The North British Review" for 1854. On page 17 of his "Autobiography," Spencer makes reference to enquiries "some 40 years ago" which prompted a reference to Dr. Biber's "Life of Pestalozzi." The "Autobiography" was completed in 1894, exactly forty years after the first appearance of "The Art of Education." These two facts serve but to confirm the internal evidence of the essay itself. All Spencer's quotations from Pestalozzi are to be found in Biber, and he also quotes Biber himself, though without acknowledgment.

The introduction of Pestalozzi's views is made mainly for the purpose of criticising them. Spencer appears to have made some enquiries regarding the success achieved by schools conducted on Pestalozzian principles, and to have been dissatisfied with the results. In 1848, having entertained the thought of "reverting to the ancestral profession" he had given consideration to a project for
up, in company with his father, a Pestalozzian institute near Bath. The idea had been suggested to him by a similar institution near Derby, conducted by a Dr. Heldenmaier with whom his father had made acquaintance. Spencer's idea was "not, indeed, to carry out the principles of Pestalozzi, in particular, but to initiate an advanced form of education," especially in the sciences of mathematics, physics, chemistry, astronomy, etc. This project fell through, but not before Spencer had made some enquiries. As Heldenmaier's institute -- "a kind of English Hofwyl" -- had been set up "a dozen or more years previously," Pestalozzi's methods were apparently known to Spencer early in life. It is clear that they did not gain his unqualified approval. In "Intellectual Education" they meet with severe, though in the main just, criticism. Spencer's strictures on the "Mother's Manual", the contents of which were known to him from Biber, are sound; as is also his condemnation of Pestalozzi's geography methods, though the latter criticism is merely repeated from Biber. Spencer concludes that while Pestalozzi's principle "that alike in its order and its methods, education must conform to the natural process of mental evolution" is sound, his methods of applying the principle are faulty owing to his inadequate knowledge of psychology. Spencer therefore abandons Pestalozzi in order, following Marcel, to lay down "certain guiding principles" which, failing the existence of a "rational psychology," make "empirical approximations towards a perfect scheme." Spencer is here more a
Marcellian than a Pestalozzian.

Thomas Wyse (1791-1862).

In 1836 there was published at London "Education Reform; or, The Necessity of a National System of Education", Vol. I., by Thomas Wyse, Esq., M.P. This is the work which Spencer quotes on three occasions, twice in support of Marcel. His borrowings from Wyse are not extensive. Apart from a rather long quotation designed to exhibit "a rational mode of conveying primary conceptions in geometry", there is little further evidence of Spencer's indebtedness to the Irish educational reformer. Wyse's book is not nearly so comprehensive nor so well worth attention as Marcel's; and Spencer seems to have confined himself for the most part to the later authority.

General Criticism.

Having investigated the sources of Spencer's views on educational method, we proceed to estimate their worth.

It is to be noted, in the first place, that the chapter is rightly entitled "Intellectual Education." There is no attempt made to survey the whole process -- to show the right methods of teaching subjects such as music or literature which call for appreciation on the learner's part, or to deal with the education of the hands or heart. In the case of the knowledge or information subjects, even, the illustrations are confined to object-lessons, nature-study and geometry; for it is to such subjects as these that Spencer's "guiding principles" of method are most applicable. In this respect the chapter is really a fore-
shadowing of the plea embodied in the first chapter for the teaching of science as the knowledge of most worth.

But even as an attempt to analyse the general principles underlying the method of teaching science subjects, the chapter is disappointing. It is without doubt a sound principle that method must be based on the laws of mental development; but, as Spencer rightly points out, before that can be done, we must be in possession of an adequate psychology of mental development. This was certainly not at Spencer's service. "At present," he says, "we have acquired, on this point, only a few general notions. These general notions must be developed in detail -- must be transformed into a multitude of specific propositions, before we can be said to possess that science on which the art of education must be based." Even if Spencer's chapter had been based on his own psychology -- the subject which, he tells us, was then occupying his mind -- it would still have been of doubtful value, since Spencer's psychology is a very crude kind of mechanical associationism -- certainly not an adequate basis for the construction of an educational method. As we have just seen, however, Spencer's recommendations are in the main taken from Marcel with just the adaptation necessary to bring them into accord with his principles of cosmic evolution.

It is a moot point whether a science of school method

*Note: "When he comes to deal with methods," says Archer, "Spencer finds his hands tied by the curriculum which he has already laid down." ("Secondary Education in the Nineteenth Century", p.122). The effectiveness of this comment is lost when it is recollected that the essay on "The Art of Education" (Chap.II of "Education") was written in 1854 five years before "What Knowledge is of Most Worth?" (1859).
will ever be constructed. Individual differences are so
great that teaching method must always be varied to suit
the individualities of the pupils. Hence the need, which
Spencer recognises, for an art of education as well as a
science of education. Still, if we can discover the gen­
eral principles of cognition, we are in a better position
to make application of psychology to the practical art of
teaching the subjects which aim at enlarging the pupils'
knowledge. What is the value of Spencer's "guiding prin­
ciples" of cognition?

The Theory of Education: Mental Development.

(a) The Mind Develops from the Homogeneous to the
Heterogeneous.

This principle is Spencer's translation of Marcel's
"axiomatic truth" that method in education must proceed
from the simple to the complex. It is the application to
mind of the well-known definition of evolution as "an
integration of matter and concomitant dissipation of
motion; during which matter passes from an indefinite, in­
coherent homogeneity to a definite, coherent heterogene­
ity; and during which the retained motion undergoes a
parallel transformation." The statement is so general
that, even granting its validity, it could afford little
practical help to the teacher. Spencer interprets it to
mean that in teaching we should proceed from "the single
to the combined" not only in each subject but in "know­
ledge as a whole," beginning with but a few subjects
and successively adding to them until finally we carry
on all abreast. It hardly needs the heavy artillery of
an evolution-formula, one may well think, to support this common-sense maxim.

(b) The Mind Develops from the Indefinite to the Definite.*

The experiences of the undeveloped mind are vague, lacking niceness of discrimination. Hence in teaching we should begin with crude notions, gradually making them clearer and clearer as experiences accrete until the definitions of advanced knowledge are reached. These definitions lead up to scientific formulae, which "must be given only as fast as the conceptions are perfected."

This maxim like the first is of very limited practical value. It confuses the supposed mode of the mind's development with the method of presentation in teaching. The teacher has generally to present definite ideas to the pupils and seek by illustrations and applications to make them clear. Thus it is equally true to say that the teacher should begin with definite knowledge and see that it is definitely apprehended by his pupils.

(c) The Genesis of Knowledge in the Individual follows the Same Course as the Genesis of Knowledge in the Race.

The assumption made here is that characteristics acquired by individual members of the human race in the past are passed on to their descendants; or, in particular, that since there has been "an order in which the human race has mastered its various kinds of knowledge, there will arise in every child an aptitude to acquire these kinds of knowledge in the same order." The assumption

*Note: This second principle does not appear in the original article on "The Art of Education" in "The North British Review" for 1854. It was added by Spencer,
is highly doubtful. Even if it were true, it would obviously be a very uneconomic procedure to carry the child through the process by which scientific knowledge has been won in the course of humanity's development.

The education of the individual is largely a process of "short-circuiting", not a "repetition of civilization in little." No one would think, for example, of teaching alchemy before chemistry, astrology before astronomy, phrenology before psychology, or the Roman system of notation before the Arabic. The child, furthermore, is a child, not an adult in miniature. His interests are not those of the adult whether savage or civilised. Hence the knowledge suitable for a child is not the same as that which appeals to the adult. In any case, there is no reason to suppose that the mind of a child of to-day is essentially different in constitution from the mind of a child of two thousand or ten thousand years ago. What is vastly different is the social heritage, the environment of ideas and ideals by which the modern individual is surrounded. Spencer, having stated that "in deciding upon the right method of education, an inquiry into the method of civilization will help to guide us," proceeds to state as one of the conclusions to which such an inquiry leads that every study should have a purely experimental intro-

when, in 1861, the four essays were collected to form the book on "Education: Intellectual, Moral, and Physical." It is another echo of the famous definition of evolution. *First Principles* originally appeared in 1862.
duction. Either his knowledge of the history of science was seriously at fault, or — more likely — he is merely attempting to bolster up a favourite idea by wrapping it around in high-sounding phrases. The genesis of knowledge in the individual must be radically different from the genesis of knowledge in the race if civilization is to be maintained, and even more if it is to be advanced.


From the laws of mental development Spencer descends to more strictly practical maxims of method.

(a) Proceed from the Concrete to the Abstract.

This maxim is a corollary of the principle that we should proceed from the simple to the complex. It means in practice that "the mind should be introduced to principles through the medium of examples." Following Marcel, Spencer points out that generalizations are simple only in comparison with the whole mass of particular truths they comprehend, but are difficult of comprehension to a mind which does not possess a store of the single truths they embody. Spencer's example is found earlier in the Chapter, where he points to the abandonment of "that intensely stupid custom of teaching grammar to children." The advice is sound in the main, although there may be occasions when teaching may begin by laying down a principle and explaining it by examples. Like the other maxims, this one is too general to be of much help in planning instruction in any particular subject.

(b) Proceed from the Empirical to the Rational.

Spencer deduces this maxim from his "inquiry into
the method of civilization." It is merely a variant of the preceding maxim -- from the concrete to the abstract -- and, like it, is exemplified by the "modern course of placing grammar, not before language, but after it." "During human progress," says Spencer, "every science is evolved out of its corresponding art," and he concludes, again rather unhistorically, that every study should have a purely experimental introduction. As a guide to teaching, the advice is no more helpful than before.

(c) Encourage the Process of Self-development to the Uttermost.

In justification of this maxim, the recommendation of which by Marcel confirmed Spencer's own personal experience of it, Spencer makes the doubtful assertion that "humanity has progressed solely by self-instruction." Children, he says, "should be told as little as possible, and induced to discover as much as possible." This is one of many agreements between Spencer and Rousseau -- agreements produced through the intermediary of Marcel, whose language in many places is simply a free translation of the "Emile"! Like the heuristic method, as later elaborated, the maxim is not of universal application. It suits best the science subjects, though even with them it may lead to an unnecessary waste of time if it is honestly applied. It is least applicable to the humanities. Mankind has not progressed solely by self-instruction; and children would make no progress in their education if they were left to find out everything for themselves.
Self-activity, indeed, is necessary in all learning, but there may be self-activity in the mastery of other people's ideas as well as in discovery of them anew for oneself.

(d) See that your Instruction creates a Pleasurable Excitement in your Pupils.

This means, in other words, that all instruction should be made interesting to the pupils. The maxim, as we have seen, was commended to Spencer by the experience of his own education, which was marked by the absence of coercion and the encouragement of self-activity. It remained only to justify it by connecting it with the natural development of the mind. Marcel had pointed out that the activity of the faculties is naturally pleasurable; and Spencer applies the converse by pointing out that the test of the 'naturalness' of any method or arrangement of studies is its capacity for arousing pleasure or interest. So far as the instruction of quite young children is concerned, the interest-test is sound. The problem is not so simple where older pupils are concerned. There may be subjects which it is necessary to teach, but which do not arouse immediate interest. A certain amount of coercion in education may be justified. Spencer appears to realise this. "It is true," he tells us, "that some of the higher mental powers, as yet but little developed in the race, and congenitally possessed in any considerable degree only by the most advanced, are indisposed to the amount of exertion required of them. But these, in virtue of their very complexity, will, in a normal course of culture, come last into exercise; and will therefore have no demands made on them until the pupil has arrived at an age when ulterior motives can be brought into play, and an indirect pleasure made to counterbalance a direct pleasure."
Apart from the assumption of faculties "congenitally possessed" as a result of ancestral experience, the view is sound that with older pupils indirect motives may take the place of direct motives. Otherwise expressed, this means that older pupils are capable of volitional attention, and are fit for "work" — in the psychological sense of the term — as distinct from "play."

Perhaps the best comment on Spencer's maxims taken together is that made by Quick with reference to Marcel's axiomatic truths of methodology: "I confess they bring into my mind the advice given to a learner in billiards: 'When in doubt cannon and pocket the red.' First catch your 'Method of Nature,' as Mrs. Glass might have said." The beginner at teaching is not made much the wiser by being told to proceed from the simple to the complex, from the empirical to the rational, from the concrete to the abstract; or to make the mode and arrangement of his instruction accord with the education of mankind considered historically. The weakness of such abstract and general principles lies in the difficulty of interpreting them and of applying them to the actual process of teaching any particular subject.

The Practice of Education.

It was doubtless a consciousness of this weakness which led Spencer to "pass from the theory of education to the practice of it", with the two-fold object of exemplifying his guiding principles and of "making sundry specific suggestions."

Sense-Training.

Spencer agrees with Pestalozzi that education
should begin from the cradle, but differs from him in the application of the idea. Citing from Biber the case of spelling, he criticises Pestalozzi's analysis of the elements of language into its constituent sounds, which are to be repeated to the infant in the cradle. Spencer, following "the course which psychology dictates," finds that the earliest impressions which the mind can assimilate are the undecomposable sensations produced by resistance, light, sound, etc. These, according to Spencer, must form the elements of instruction. Beginning thus with different degrees and kinds of resistance, different amounts and qualities of light, differences in pitch, timbre and loudness of sound, we shall be following the "necessary law of progression from the simple to the complex."

In criticism of this we may in our turn cite Spencer's criticism of Pestalozzi and say that his notions of early mental development are too crude to enable him to devise judicious plans of instruction. The whole realm of cognition can no doubt be shown to be based upon the elements of sensation; but the sensations are elements only for the analytical psychologist: they are not necessarily elements for the child. It is an old point in psychology that a pure sensation is never perceived. As soon as the mind becomes conscious of experiences, it has reached up at least to the level of perception, and perhaps beyond. Hence it is psychologically unsound to begin instruction by a formal training of the senses, even if such a "training" be possible.
We need not follow in detail Spencer's remarks on the advisability of encouraging the child to familiarise itself with its physical environment. On the whole they are sound enough, although they were better expressed by Rousseau a century before Spencer published his book.

Object-Lessons.

Spencer's contribution to the method of giving object-lessons, "which manifestly form a natural continuation of this primary culture of the senses", is his insistence that the child should be told as little as possible and encouraged to discover as much as possible for himself. By this method, he tells us, the mother is simply aiding self-evolution, which corresponds with the process displayed in the evolution of humanity. Otherwise, Spencer accepts the then current practice of the Pestalozzians of giving lessons on the attributes of objects, -- hardness, softness, colour, taste, size, etc., -- together with their names. His justification of this training in perception is that in later life "when there are no longer teachers at hand, the observations and inferences hourly required for guidance, must be made unhelped; and success in life depends upon the accuracy and completeness with which they are made."

Nature-Study.

Passing to nature-study, which he regards as intermediate between object-lessons and the investigations of the naturalist and the man of science, Spencer draws largely on his own early experiences for his suggestions. From the mere collecting of wild-flowers, pebbles and shells,
the child is to pass to an elementary study of botany and entomology. He is to be shown how to preserve botanical specimens and be supplied with the apparatus needed for keeping the larvae of the common butterflies and moths through their transformations — "a practice which, as we can personally testify, yields the highest gratification."*

Those pursuits serve as an admirable introduction to the study of physiology, and in addition open up a world of beauty to the trained observer. More important than any other knowledge whatever, they afford the young observer a knowledge of the laws of life, which underlie not only all

*Note: How this nature-study appealed to one of Spencer's little disciples appears from the following instructive and amusing passage:

"To the children of the household the philosopher always appeared in the guise of a liberator. His delightful axiom 'submission not desirable' was adorned and pointed by detailed criticism of the ways of governesses and other teachers: 'stupid persons who taught irrelevant facts in an unintelligible way', a criticism which made even my mother uneasy, and which infuriated the old-fashioned dame who presided for many years over the activities of the schoolroom. 'You can go out this morning, my dears, with Mr Spencer,' said the governess to her pupils, after listening with pursed up lips to one of the philosopher's breakfast tirades against discipline, 'and mind you follow his teaching and do exactly what you have a mind to.' Whether due to an 'undesirable submissiveness' to the governess or to a ready acquiescence in the doctrine of revolt, the philosopher found himself presently in a neighbouring beech-wood pinned down in a leaf-filled hollow by little demons, all legs, arms, grins and dancing dark eyes, whilst the elder and more discreet tormentors pelted him with decaying beech leaves. 'Your children are r-r-r-rude children,' exclaimed the Man versus the State as he stalked into my mother's boudoir. But for the most part he and we were firm friends: we agreed with his denunciation of the 'current curriculum', history, foreign languages, music and drawing, and his preference for 'science' — a term which meant, in practice, scouring the countryside in his company for fossils, flowers and water-beasties which, alive, mutilated or dead, found their way into hastily improvised acquariams, cabinets and scrap-books — all alike discarded when his visit was over. Speaking for myself, I was never interested in these collections of animate and inanimate
bodily and mental processes, but by implication all the
transactions of the house and the street, all commerce, all
politics, all morals. In a word, science, beginning with
nature-study, is the knowledge of most worth, as leading to
those great generalizations by which actions may be rightly
guided. Here in a paragraph we have the thesis of Spencer's
first chapter, written five years after the present essay.

Drawing.

Spencer has much to say on the subject of drawing. It
should begin with the spontaneous attempts made by children
to depict the common objects and animals of their envi­
enment. Colour being, in Spencer's opinion, psychologically prior to form, practice in colouring ought not to
be postponed until after "a dreary discipline of copying
lines." Colouring "should be continually employed as
the natural stimulus to the mastery of the comparatively
difficult and unattractive form." Spencer's psychology in
this case does not seem to be quite sound. Discrimination
of colour as a mental experience precedes perception of
form; but children's first efforts at drawing consist of
attempts to render form in outline. Spencer is on less
disputable ground when he advises that the objects chosen
for the child's imitation should be real. He condemns the
practice of drawing from copies: "and still more so that
formal discipline in making straight lines and curved lines
and compound lines, with which it is the fashion of some
teachers to begin." The teaching of such a 'grammar of
form,' which was usual among the Pestalozzians, violates

things, even when looked at through his microscope or
pulled to pieces by teasers." --Mrs. Beatrice Webb, "My
all the guiding principles of method: it begins with the definite instead of the indefinite, the abstract instead of the concrete, the rational instead of the empirical; and is the counterpart of beginning a language by learning its grammar. Drawing lessons will lead up to a mastery of the principles of perspective; and Spencer concludes his discussion of this subject by suggesting an apparatus for teaching perspective experimentally. Running through the whole passage is the assumption that the main object of teaching drawing is to develop the "faculties" of observation, perception and colour, and to give a training in the powers of manipulation. No stress is laid on drawing as an aid to appreciation or as a means of self-expression. Perspective is to be taught so that a pupil may learn "the true theory of a picture (namely, that it is a delineation of objects as they appear when projected on a plane placed between them and the eye)"; and empirical perspective is to culminate in scientific perspective. It should be remembered in this connection that Spencer's acquaintance with the "true theory of a picture" was an almost insuperable barrier to his appreciation of its aesthetic merits.

Geometry.

Geometry is to have a purely empirical introduction after the method suggested by Wyse. It is to begin with solids and progress to the drawing of plane figures, rectangles, circles and the like. The pupil is then to be practised in testing the correctness of figures drawn by the eye, as artisans have to do. In this way the learn-
ing of geometry follows the development of geometrical ideas in the history of the race, since geometry originated in the need of accurate measurements of areas, foundations of buildings, etc. Like the primitive builder, the child will be limited at first to tentative processes of measurement which will constitute a "valuable discipline of the perceptions." "If," says Spencer, "in the early civilization of the child, as in the early civilization of the race, science is valued only as ministering to art; it is manifest that the proper preliminary to geometry, is a long practice in those constructive processes which geometry will facilitate." Later on the time arrives for "empirical geometry; that is -- geometry dealing with methodical solutions but not with the demonstrations of them." The method as far as practicable is to be that of discovery. "To bisect a line, to erect a perpendicular, to describe a square, to bisect an angle, to draw a line parallel to a given line, to describe a hexagon, are problems which a little patience will enable [the pupil] to find out." Here Spencer draws upon his own successful experience as a teacher to illustrate the feasibility of his method, and refers for further particulars to his father's little book on "Inventional Geometry." This empirical geometry is to be continued along with other studies for years and is to culminate in rational geometry as in Euclid accompanied by the solving of such problems as are to be found appended to the successive books of Chambers's "Euclid." This self-help will not only be of intellectual value, but will help to provide a
moral discipline.

Conclusion.

Here ends Spencer's illustrations of his guiding principles of method, and his "sundry specific suggestions." To have continued them further would, he thinks, have been to write a detailed treatise on education, which he did not propose to do. He concludes the essay by once more drawing the reader's attention to two of the principles which he regards as most important and least attended to, namely, the principles that all education should be a process of self-instruction, and that it should be pleasurable. Self-discovery ensures a firmer mastery of the knowledge gained, and at the same time provides a valuable moral discipline by calling for courage in attacking difficulties, patient concentration of the attention, and perseverance through failures -- qualities which after-life specially requires.

Spencer's reason for limiting his examples to sense-training, object-lessons, nature-study, drawing and geometry may have been, as he says, to avoid writing a detailed treatise on method; but it is rather significant, especially in view of his later essay, "What Knowledge is of Most Worth?", that he chooses only such subjects as lend themselves easily to experimental and investigational teaching, and appear to conform well to the guiding principles which for Spencer constitute the theory of school method.

It is even more significant, in view of Spencer's inveterate individualism, to note the omissions from his
There is no mention of reading, writing, composition, history, music or literature. In the case of these subjects, which cannot readily be taught by the process of self-discovery, it is much more difficult to find examples of a progress from the simple to the complex, the empirical to the rational, the concrete to the abstract, and so on. They do not embody truths which the pupil can discover for himself or verify experimentally. The ideas dealt with in the history or literature lesson must be taken on trust: they have their justification in the social experience of the race. Spencer distrusts society and its products: he has little respect for authority: the knowledge of most worth for him is the organised knowledge of science. Hence it is much more congenial to him to select the subjects which appeal to his love of science and to neglect the humanistic subjects, which find due place in the work of Spencer's authority, Claude Marcel.

Even as an essay on method in science-teaching, the chapter is of no great value. The recitation of a number of ambiguous general maxims, which are supposed to have psychological justification, is an inadequate analysis of the learning mind, and of little practical value for the planning of instruction or the teaching of a particular lesson. Had it been written in a style less graphic, or been the work of a lesser man than Herbert Spencer, the essay would long ago have ceased to attract attention in the literature on education.
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"Those who seek aid in carrying out the system of culture above described will find it in a little work entitled "Inventive Geometry"; published by J. and C. Mozley, Paternoster Row, London." — Note appended by Spencer to the discussion on geometry in "Intellectual Education." (1861 edition of "Education", p.98.).

There was published in English at London in 1842: "Letters from Hofwyl", by a Parent. The writer has not been able to see this work, which is probably the source of Spencer's knowledge of Fellenberg. (Fellenberg quoted by Spencer, pp.95,122.).

See also General Bibliography.
CHAPTER XIV.

CONCLUSION.

Popularity of "Education: Intellectual, Moral, and Physical."
Limited Extent of Spencer's Influence.
The Value and Opportuneness of Spencer's Plea for Physical Education.
Science enters the School.
Spencer's Views on Method too Formal.
Spencer's Views on Moral Education marred by his Individualism and Naturalistic Standpoint.
Unrelenting Antagonism towards National Education.
General Estimate.
CHAPTER XIV.

CONCLUSION.

Popularity of "Education: Intellectual, Moral, and Physical."

Whatever may be thought of Spencer's actual influence on educational theory or practice, there can be no doubt about the very great popularity enjoyed by his essays on Education. His article on "What Knowledge is of Most Worth?", despite its anonymity, at once attracted attention. Spencer's American friend, Professor E.L. Youmans, recognising the authorship, desired to include it along with another essay of Spencer's in a book, "Modern Culture; its True Aims and Requirements" (London, 1867), which he intended to bring out. "I concluded," he wrote to Spencer, "before I had read a page of it that you wrote it: the full perusal strengthened conviction". Spencer, however, having had the intention from the outset of including the four Review articles in a book, withheld his permission. By 1878, when the first cheap edition was published, "Education: Intellectual, Moral, and Physical" had been translated into French, German, Italian, Russian, Hungarian, Dutch and Danish; by 1884, there had been added versions in
Spanish, Swedish, Bohemian, Greek, Japanese and Chinese; and since then there have been translations into several of the languages of India. Spencer was specially pleased when he learned that the first chapter which the Greeks had chosen to translate (1880) was "What Knowledge is of Most Worth?" — "Anomalous enough! While in England the educational authorities cry 'Greek Literature rather than Science', in Greece they cry 'Science rather than Greek Literature'." — On the other hand, he raised no objection to a proposal of the French Minister of Education to prepare for official distribution a translation of "Education" from which the first chapter should be omitted, beyond stipulating that the extent and nature of the part omitted should be specified in the preface. As late as 1901, Spencer was "both 'surprised and gratified' by an application from Mr. Brant-Sero (an Iroquois) for permission to translate "Education" into the Mohawk language."

So much for the dissemination of his views abroad. At home the "Education" was very widely read, especially after Spencer had achieved fame through his labours on the Synthetic Philosophy. In 1884, "The Journal of Education" offered its readers a prize for the best list of the seven greatest living English Educationists. Spencer headed the list to which the prize was awarded and also polled the highest number of votes. The issue of a cheap edition of the "Education" in 1878 and of a sixpenny edition by the
R.P.A. in 1903 (to which Spencer's consent had been obtained the previous year) betoken the continued popularity of the work.

Limited Extent of Spencer's Influence.

Yet despite widespread knowledge of Spencer's views, it is doubtful whether they exerted any very great influence on educational thought or practice. Spencer has not succeeded in founding any school of philosophy; and his views on education remain characteristic of Spencer himself rather than of any influential body of disciples. His educational doctrine is of interest and value as an example of how a man's philosophy, especially his social philosophy, influences his educational outlook, rather than as an expression of any widely held point of view of his own age. Indeed, his individualist standpoint is more typical of the eighteenth century than of the nineteenth century. Individualism and the laissez-faire attitude towards state intervention persisted, it is true, into the nineteenth century; but Spencer's championship of them was upheld by only a few individual followers (for example, Auberon Herbert); and they had ceased to be quite typical of English thought even when Spencer published that early confession of his faith, "Social Statics" (1850).

What helped to give "Education: Intellectual, Moral, and Physical" its popularity was that soon after he published the book, Spencer began to gain a reputation as the philosopher of evolution; the appearance of
"The Origin of Species" in 1859 having the effect of making Evolution the gospel of science throughout the remainder of the century. Even those who did not care to tackle the Synthetic Philosophy, or who were offended by Spencer's rationalism, could at least read the philosopher's little book on Education with ease and often with approval. Another cause of the book's popularity was the excellence of its expository style. Spencer is a lucid, interesting and, despite frequent logical fallacies, a convincing writer.

The Value and Opportuneness of Spencer's Plea for Physical Education.

Of the four chapters of the "Education", the last, on Physical Education, is least open to criticism. Spencer did good service by insisting on the claims of the body at a time when physical education was in danger of being neglected even in the great public schools, and when much harm was being done to the nation's physique by the conditions under which children were living in the industrial towns. The lesson which Spencer taught in 1859, that "to be a nation of good animals is the first condition to national prosperity", was not thoroughly learned until two wars had made it disastrously clear to the people of this country that modern industrial conditions were pressing heavily on the nation's manhood and womanhood. But it is significant of how far we have departed from Spencer's views in other respects that it was left to the State to organise measures for
the medical inspection of school children and the treatment of physical defects as part of a national system of compulsory education.

Science Enters the School.

Though it has been perhaps the most criticised of all the essays, the one which forms the first chapter of the "Education" has contributed most to Spencer's reputation as an educationist and is probably the best known of the four. It is Spencer's plea for the recognition of Science as the most valuable of all the subjects of instruction. Alfred Russell Wallace has called the nineteenth century the "Wonderful Century" on account of the advances made in scientific knowledge and its applications. A growing interest in science was manifest from the middle of the century onwards; and there was increasing recognition of the need for reforming the school curriculum so as to bring it more into touch with modern requirements. But Spencer's plea for science as the knowledge of most worth is too one-sided to be considered a typical statement of the aims of the educational reformers. "When the essay was written" (1859), he tells us, "its leading thesis, that the teaching of the classics should give place to the teaching of science, was regarded by nine out of ten cultivated people as simply monstrous. Even now [1894] changed though the general feeling is, more space for science is but reluctantly yielded; and in such places as public schools is still very small". It was perhaps natural that a man like Spencer should seek to challenge the monopoly held by
the classics in secondary education by boldly trying to displace them altogether and substitute science. And no doubt there was need for some such arresting challenge to disturb the conservatism of the schools. But once the gauntlet had been thus violently thrown down and the battle joined, the more moderate demand of such men as Tyndall, Huxley or Ruskin and of actual teachers like J.M. Wilson, Science Master at Rugby, carried greater weight than the more extreme and more intolerant views of Spencer. Huxley, for example, was free from that bias against literary culture which disfigured Spencer's presentation of the case for science. Huxley would have included in the curriculum for "every English child" reading, writing and drawing; the elements of physical science; the elements of the theory of morals and of political and social life; the history of our own country treated as part of the history of civilisation; incidental geography; English literature and composition; translations


† Note: "I have said before, and I repeat it here, that if a man cannot get literary culture of the highest kind out of his Bible, and Chaucer, and Shakespeare, and Milton, and Hobbes, and Bishop Berkeley, to mention only a few of our illustrious writers -- I say, if he cannot get it out of those writers, he cannot get it out of anything; and I would assuredly devote a large portion of the time of every English child to the careful study of the models of English writing of such varied and wonderful kind as we possess, and, what is still more important and still more neglected, the habit of using that language with precision, with force, and with art." --Huxley, "Science and Education", p.185.
of ancient and modern foreign literary masterpieces; and lastly music or painting. For the few who were able to spend more time on education, he would have added one or two foreign languages, preferably Latin and German. Spencer, on the other hand, wished the pupil to master the cardinal principles not of one science only but of all sciences, and he would have reformed the curriculum by excluding the classics altogether and by reducing literary instruction to a minimum.

The schools certainly needed reforming when Spencer wrote his article. Even in 1859, there was still much truth in Huxley's picture: "If," says Huxley, "I am to understand by that term [literary education] the education that was current in the great majority of middle-class schools, and upper schools too, in this country when I was a boy, and which consisted absolutely and almost entirely in keeping boys for eight or ten years at learning the rules of Latin and Greek grammar, construing certain Latin and Greek authors, and possibly making verses which, had they been English verses, would have been condemned as abominable doggerel, -- if that is what you mean by liberal education, then I say it is scandalously insufficient and almost worthless. My reason for saying so is not from the point of view of science at all, but from the point of view of literature. I say the thing professes to be literary education that is not a literary education at all. It was not literature at all that was taught, but science in a very bad form. It is quite obvious that grammar is science and not literature. The analysis of a text by the help of the rules of grammar is just as much a scientific operation as the analysis of a chemical compound by the help of the rules of chemical analysis. There is nothing that appeals to the aesthetic faculty in that operation; and I ask multitudes of men of my own age, who went through this process, whether they ever had a conception of art or literature until they obtained it for themselves after leaving school?"

But by 1859 a beginning had been made towards recognising the claims of science to a place on the school curriculum,
and owing to the continued agitation* of scientists, Spencer included, and others interested, the study of science has gradually come to be regarded as forming an essential part of a liberal education. It is now recognised that an education which does not comprise some study of science and some appreciation of the scientific outlook is incomplete as a preparation for life in a great industrial State. Science, moreover, is itself being "humanised", and in consequence of this there has taken place a softening of the antagonism between the sciences and the humanities.

Due place began to be given to science as a subject of study in University and school about the middle of the century. In 1851, the Natural Science Tripos was founded at Cambridge, and two years later the Honours School for Natural Science was instituted at Oxford. In 1853, the Department of Science and Art was set up; and in 1856 it was removed from the charge of the Board of Trade and placed under the Committee of Council on Education. It first of all established Science Schools in various towns and later began to give grants in aid of science classes held in connection with existing schools. The Public Schools Commission recommended in 1864 that all boys should receive instruction in one branch at least of

*One example may be found in the volume, edited by E.L. Youmans and published simultaneously in Britain and America, entitled "Modern Culture: its True Aims and Requirements." (London, 1867.).
Natural Science, preferably either chemistry and physics, on the one hand, or comparative physiology and natural history, on the other. In 1866, a committee of the British Association (founded, 1831) examined the question of the teaching of science in schools and drew a useful distinction between scientific information and scientific training. In 1867, the Education Department first recognised natural science as a subject of instruction in the upper classes of elementary schools. From 1871 to 1875 the Royal Commission on Scientific Instruction issued a series of reports recommending the inclusion of scientific teaching in all grades of education. And so by the end of the century, Science had ceased to be the Cinderella in the family of knowledges, condemned to be a household drudge, in order that the Humanities, her haughty sisters, might flaunt their fripperies in the eyes of the world. For this reestimation of scholastic values, Spencer deserves a due measure of credit.

Spencer's Views on Method too Formal.

Spencer's contribution to the establishing of an adequate Method in Education is less noteworthy than either of the two chapters previously noticed. The first of the four essays on Education to be written, it depends closely on the work of Claude Marcel, although it is ostensibly a restatement of Pestalozzi's doctrine of Anschauung. Spencer has little to add to the methods he found good in his own education. And apart from the formulation of sundry general processes thought by him to be characteristic of mental development, and the deducing
from them of one or two maxims of method, what Spencer has to say about the process of instruction and the subjects likely to arouse the self-activity of the learner had been better said by Rousseau; from whom indeed the ideas had descended to Spencer at second-hand. In his personal intercourse with the few children with whom he was intimate Spencer appears to have been quite popular; and he was successful during his brief experience as a teacher; but it seems that his theories did not always work out well in practice. Himself a bachelor, and during childhood cut off from almost all contact with those of his own age, Spencer had too little insight into the child mind. His educational writings, unlike those of Rousseau, are not marked by any strong sympathy with the child's point of view: they are more logical than psychological.

Spencer's Views on Moral Education marred by his Individualism and Naturalistic Standpoint.

Although Spencer, like most of the educational writers of his time, was interested in moral education, his individualism and his naturalistic philosophy proved insuperable obstacles to a fruitful understanding of the nature of morality or to the formulation of any adequate theory of punishment. Distrusting society and its restraints, he looks to physical Nature for guidance and to natural consequences as the proper punishment for wrongdoing. The result is a completely negative theory of moral discipline based upon impersonal punishment. The theory, however, breaks down even in the author's own
exposition of it. Behind it lies Spencer's early acquired and persistently maintained belief in "natural rights" and the "law" of equal freedom.

Unrelenting Antagonism towards National Education.

On the question of National Education Spencer's mind was made up at the age of 22, when he published the Letters on the Proper Sphere of Government in the "Non-conformist." Society in his opinion is a 'growth and not a manufacture'; but government is an artificial institution which ought to be restricted within the narrowest possible limits. It never occurs to him that government may be a natural "organ" of society, or that State interference may be a "natural" process making for the greater "integration" of the "social organism." In the matter of education, Spencer expects the individual parent to be a better judge of what is suitable for his children than the collective wisdom of the State as expressed by a popularly elected Parliament acting through carefully chosen and highly trained officials: he would trust the parent "to decide whether his children should learn to read and write or should spend all their youthful days toiling underground in the mines". The Education Acts passed since 1870 have certainly "interfered" with many persons --if there had been no need for interference, there would have been no Acts -- but they have helped to secure for all children the minimum amount of schooling without which individual development would be stunted and such social progress as has been made in the last half century would
not have been possible.

Spencer's continually uttered warnings against the dangers and shortcomings of bureaucracy, educational bureaucracy included, should, however, be counted to his credit. "No one can read Spencer," we may agree with Professor Barker, "without learning a lesson which it is good to learn, that the State after all only acts through the finite intelligence of its officials. We must not expect more from it than we expect from our own equally finite intelligence." But neither should we expect less from it; and we are certainly not without good reason for thinking that the intelligence of the "State" is at least as good as the average intelligence of the individuals who compose it, and better than the intelligence of the poorest, who stand to benefit most by its "interference."

In any case, Spencer has few followers nowadays in the lifelong campaign which he kept up against State education. No one will dare to claim that all the expectations of the early reformers have been realised: every ill of the body politic has not been cured. But it is surely "irrationally sanguine" for anyone to think that: "If there had been no compulsory education, the bulk of the people would still have been educated in private schools. Only the surplus of the population would have remained unable to read or write; and there are only too many occupations where reading and writing are unnecessary. The immense taxation on account of education would have
been non-existent, and the money so saved would have gone to stimulate industry and added to the capital of the country."

General Estimate.

To say that Spencer's was "probably one of the greatest minds the world has ever known" is a gross overstatement; and it is hardly more true to say that he was "the only educational writer of [his] country to make much impression on the times." Spencer was a great generaliser, fertile in inventing theories capable of comprehending large masses of facts; but he was too often content to generalise on insufficient knowledge;* and he appears to have been uncritical of the "facts" which were supplied to him. Mrs. Beatrice Webb, for example, tells of how she used, out of curiosity about the working of his mind, to invent illustrations for Spencer of the "laws" which he had formulated in the course of hasty reading or limited observation, and of how "he was the most gullible of mortals and never scrutinised the accuracy of my tales." Spencer's own later account†† of

* Would the private schools for "the bulk of the people have supplied education free?

† Cf., for a neatly told example of this, Galton's story of the tragedy of the 'slaying of a beautiful deduction by an ugly fact' in Duncan, "Life and Letters of Herbert Spencer," p.502. Cf. also "Feeling versus Intellect". ("Facts and Comments."")

†† Duncan, pp.417-19.
his methods of work bears out the reported reply of Huxley (1887) to the suggestion that Spencer "had worked out the theory of evolution by grasping the disjointed theories of his time and welding them into one." "'No,' said Huxley, 'Spencer never knew them: he elaborated his theory from his inner consciousness. He is the most original of thinkers, though he has never invented a new thought. He never reads: merely picks up what will help him to illustrate his theories. He is a great constructor: the form he has given to his gigantic system is entirely original: not one of the component factors is new, but he has not borrowed them.'" This judgement is further confirmed by a character sketch contributed by Francis Galton, that very shrewd and competent observer of human nature and of the workings of the mind.*

*Note: "If you ask," Spencer wrote to Leslie Stephen in 1899, "how there comes such an amount of incorporated fact as is found in "Social Statics," my reply is that when preparing to write it I read up in those directions in which I expected to find materials for generalization. I did not trouble myself with the generalizations of others.

And that indeed indicates my general attitude. All along I have looked at things through my own eyes and not through the eyes of others. I believe that it is in some measure because I have gone direct to Nature, and have escaped the warping influences of traditional beliefs, that I have reached the views I have reached.

My own course — not intentionally pursued, but spontaneously pursued — may be characterized as little reading and much thinking, and thinking about facts learned at first hand...." --Duncan, pp.418-19

"That [Spencer] lost by this restricted reading cannot be doubted. It gave colour to the not ill-natured remark of one of his friends: 'Scratch Spencer, and you come upon ignorance'."--Duncan, p.416.
Another limitation of Spencer's, not unconnected with the last, was his proneness to cling to views formed early in life even when new knowledge had come to him. Thus, as we have seen, "Social Statics", written when he was thirty, remained characteristic of his views on ethics and politics and on education throughout his whole life, despite the subsequent adoption by him of the doctrine of evolution, with which he attempted to reclothe the old ideas. There is dramatic truth in the story that he once replied to criticism with the words: "That can't be true, for otherwise my First Principles would have to be re-written -- and the edition is stereotyped." If Spencer had had the patience to devote more time and attention to the mastery of other men's ideas, if he had been less concerned about his own originality and more content to look at some things through the eyes of others, he might not have finished the whole of the magnificently accomplished task of writing a completed system of Synthetic Philosophy, but he would probably have used his great mind to better advantage and have made a more lasting contribution to philosophic thought.

His views on education suffer from similar defects. There is an originality about his presentation of them which conceals their unoriginality. He was very little acquainted with the views of educational thinkers of the past, and 'read up only in directions in which he expected to find materials for generalizations.' His own personal

*See lists of books prefixed to his original Review Articles.
experience was apt to be the measure of his estimation of the thoughts of others on education. The four essays which he wrote in his thirties, and which constitute the only systematic presentation of his educational ideas, though they were originally composed "with a view to their republication in a united form," are only loosely connected, and can hardly be regarded "as forming a tolerably complete whole." They betray a very inadequate appreciation of the essentially social nature of the educative process, to which is joined an almost total neglect of the humanistic subjects of instruction. For these defects Spencer's early experiences as a child and the one-sided nature of his own education, together with his early accepted philosophy of life, must be held largely accountable. Spencer never really learned the lesson which Rousseau taught, and which has revolutionised modern thought about education, namely, the all-importance of setting the child in the centre of the process and relating all education to the age and stage of development of the pupil. He failed adequately to psychologise education; and too frequently gave way to the temptation of regarding it from the adult point of view. Nevertheless, his views were presented in a style so brilliant and with a wealth of illustration so original and convincing that he remains the best known, if not the most influential, educational writer of his time. The study of his views in the context of his age and against the background of his social and political philosophy will always be a
profitable exercise in clarifying the student's own thought about education and in rethinking his conceptions of those ultimates on which the practice of education will continue to depend.
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