## SEX IN EDUCATION

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THE part played by sex in education has been insufficiently studied, and there are still great divergencies of opinion in this field. Questions which arise here may be tabulated as follows:—

- 1. What are the differences between the sexes in the sphere of mind?
- 2. Are co-education and uniformity of curricula advisable?
- 3. How far is it sound policy to direct female education on the assumption that women are fitted to fill most of the rôles in life which have hitherto in general been reserved for men?
- 4. Is education of the young in the facts of the sex life necessary or desirable, and, if so, by whom and when should such education be given?

These are large and difficult questions, regarding which the best and most experienced thinkers are by no means agreed. We are not likely soon to arrive at a common understanding or assured results in these matters, but discussion may clear the air and point the line of future progress.

As these questions are, at bottom, biological, it will be useful to recall some of the leading facts of sex evolution, and to bear in mind the necessity for distinguishing, so far as that may be practicable, sex-differences which are innate and ineradicable from those which are the result of usage, convention, and social development. The human race has slowly developed a sex-order which has been to a certain extent plastic and adapted to the environment, but in some respects singularly rigid and conservative, responding only very slowly to the demands of a new social régime.

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At a very early stage of culture there appears to have widely prevailed the condition known as *Matriarchy*, of which the nature and history are somewhat obscure. It was probably related to the communal view of marriage, a system under which the mother was known, the father unknown or doubtfully known, and descent was consequently reckoned in the female line. This mode of descent was known not only among the Semites but among the Egyptians, the Greeks, and other nations. In Egypt the marriage

of brother and sister was reckoned the most honourable marriage. no doubt for dynastic reasons. There were periods when the king ruled by virtue of his wife, and on her demise sometimes married Traces of matrilinear descent are to be found his own daughter. in the early history of Rome. Of the eight kings of Rome not one was immediately succeeded by his son. In the Greek Pantheon, Hera occupied a position of quasi-equality with Zeus, and Athena, Artemis and Aphrodite were leading divinities. Over the nearer East, and a large part of the Mediterranean basin, the chief divinity in early times was Magna Mater. Isis occupied a prominent place among the divinities of Egypt. Ishtar was a leading divinity of Babylonia. These facts point to the conclusion that at an early stage of culture the position of woman was relatively high. That position has varied much at various epochs, and has had no constant or fixed relation to the state of culture. In the hunting stage of development, the male regarded hunting and fighting as the only reputable occupation, manual work being delegated to the female,—a conception which still lingers on in certain regions. The position of woman was relatively low among the Greeks. Their views regarding the seclusion of women and their nonparticipation in public affairs probably show Oriental influence. Among the Romans, women occupied a much higher position of influence and power. The Roman matron was a potent personage in the domestic sphere, and often exercised great influence on national affairs. In the East, and especially under Islam, the position of woman has always been low, and this has tended to retard and sterilise Islamic culture. In the modern world the position of woman is higher in England than in France, Germany, Italy and Spain; higher in America than in England.

These divergences have their root more often in tradition, usage, law or religion than in biological considerations. They are, consequently, to a large extent artificial, and likely to undergo a process of slow but definite modification.

From the standpoint of biology, certain facts are self-evident. Woman is weaker physically than man; she needs protection; she is to a large extent incapable of self-defence in times of war or social upheaval. Maternity notably increases her helplessness. The maternal instinct, so strong in most women, and so important from the racial point of view, has been the leading factor in determining many of the psychical qualities of woman. It makes her view of life more personal, more bound up with the activities and sanctities of the home, likelier to be that of the family than of the tribe or the nation, more partial in judgments,

less willing to be guided by the canons of abstract justice than the male. On the other hand, it stimulates her capacity for altruism and self-sacrifice. She is the more unselfish sex. Woman is also the more religious sex, probably in the main for two reasons. Religion, according to Schleiermacher, consists largely of the sense of dependence, and woman is more dependent than man. Further, it falls to the lot of woman to give the young child its first conceptions of nature, the world, and duty-in other words of the dawn of religion. Maternity is more intimately associated with the woman's organism and nutritive life than the corresponding paternal instinct. It looks towards the instinctive and emotional, rather than the purely intellectual aspects of life. It makes woman at bottom a pronounced realist, not very tolerant of any form of idealism, and somewhat indisposed for abstract thought. These differences are fundamental, deeply ingrained in the very fact of sex, and capable of only a limited amount of modification.

Education cannot afford to run counter to biological law. As Miss Jane Suttie has well said:—

Women are suffering from a growing deviation of interest from biological objectives forced upon them by the conditions of twentieth century life. This seems to affect them more than it does men, probably because women's biological objectives are more intrinsically of the web and woof of their lives—that is, are reproductive and nurtural, not merely sexual, and constitute life itself, not merely incidents in that life. Successful sublimation of biological interests, therefore, is a more difficult and a far rarer thing in women than in men, largely because of this difference in type between male and female sexuality. This is probably the real reason why men still lead the world in science, art, and literature, women being always handicapped by their lack of singleness of purpose compared with men.

Sydney Smith once said: "Woman will never desert the cradle for a quadratic equation." The choice, however, is not always open to her.

Biological considerations arise when we take into account the different rates of development of the two sexes. The female develops earlier and more rapidly than the male, and reaches her maturity at an earlier date. A girl of ten or twelve is farther on the road of life than the boy of the same age, and the young woman of seventeen or eighteen is more mature than her male contemporary, more mature, it is to be understood, physically. The bearing of these facts upon education is obscure, and has been insufficiently thought out. Nature is objective and racial, not intellectual or

personal. The intellectual life is a graft upon the affective life, and later in development. As a feeling, acting animal, man is of untold antiquity; as a thinking animal, he is of yesterday. The female sex, for profound biological reasons, is nearer to nature than the male, more intimately associated with the problems of race preservation and renewal. We shall not see our way clearly in problems of sex unless we think in aeons, rather than in decades or even in centuries.

The sexes differ as regards the senses. It is said, though the evidence is not wholly convincing, that the male sex is more sensitive to touch than the female, has a keener sense of hearing and of smell, while the female sex has a more sensitive sense of taste. The hunter needed his senses of hearing and smell for selfpreservation. Woman naturally developed the sense of taste in the home life.

The question of the differences between the sexes mentally should be approached with caution. That ground is strewn with fallacies. Women in the past have been far from possessing that "equality of opportunity" which they are in a fair way to enjoy As has been already pointed out, the female develops more rapidly than the male. Anatomically, girls at five years of age are in advance of the boys by six months, and at fifteen years of age by about one year. What of the mental progress? Many observers find that girls make more progress than boys in the acquisition of knowledge up to eleven or twelve years of age, and that at or about the latter age there is some decline in the case of girls, while boys show an access of power at this period. retardation in the case of girls is soon surmounted, but between the ages of sixteen and seventeen there is in many cases a period of lassitude and dullness in the female sex. Dame Nature is playing her profound game.

On the whole, girls have a more retentive memory than boys. They are more imitative than boys, more ready to defer to authority in matters of the mind, less independent in judgment, less ready to see two sides of a question. Their powers of observation, when properly trained, are at least equal to those of the male sex. They have a distinct inferiority in the capacity for abstract thought, and fall behind in the study of advanced mathematics. They are naturally more emotional than boys, and are attracted by subjects in which the emotional element comes into play, such as poetry and art. They are more drawn to music than boys, but this is not the result of a higher capacity for music, rather of the convention that has long put music among the "accomplishments" which a

and in drawing conclusions from premisses. They are, it is affirmed, more ready than men to be deflected by emotion and by personal considerations, and to be deficient in the sense of justice. These conclusions possess a certain degree of probability, which gains in force if we reflect that such characteristics are precisely those that might have been expected on biological grounds. It was in the interests of the race and of success in the struggle for existence that woman should cherish the domestic, rather than the public, virtues. It was desirable that she should stand by her husband, children, and relatives, right or wrong. It was important that she should be inclined to find excuses and be ready to forgive. These characteristics are still potent, and raise the question whether women will make good legislators or good judges. The cold light of reason is certainly less *simpatico* to the female than to the male mind.

Are co-education of the sexes and uniformity of curricula advisable?

This question is closely associated with the problem which has just been considered. If the intellectual differences between the sexes are regarded as non-essential, the argument for co-education is obviously strengthened, and it is obviously weakened if the counter view is adopted. Apart from intellectual capacity, there is the further question whether girls have the same amount of physical stamina and staying power to cope with the overcrowded curriculum of to-day and the pressure of examinations. Upon such questions it is hardly surprising that there should be much difference of opinion.

In primary schools, co-education is the rule and does not give rise to any difficulties. As regards secondary education, practice varies in different countries. Co-education is usual in America and in Scotland, is frequent in England, and almost unknown in the Latin countries. The practical difficulties as regards the arrangement of the curricula are not great, as all good secondary schools provide a large choice of courses, and individual aptitudes and preferences can be and are consulted. The Consultative Committee's Report re Sex Education (1923) expressed the opinion that "the differences (between the sexes) do not seem to justify serious differentiation in the curriculum, except in mathematics and physics." These exceptions are significant, and seem to support the belief entertained by many teachers that, beyond a sound knowledge of the elements, mathematics and physics, speaking generally, are not very fruitful subjects for girls and young women.

If is, of course, understood that in the case of girls time must be found for such subjects as cookery, domestic science, needlework and embroidery. This involves some lightening of the curriculum as regards other subjects. It will also be usually advisable to allow girls to follow their natural taste in giving some extra time to art and music.

Co-education of the sexes in the university is a plant of comparatively recent growth, and experience on this subject is still somewhat limited. The present writer's experience, which has been considerable, does not suggest that any serious difficulties, intellectual or moral, are likely to arise, but there are some discordant voices. Universities for women have been suggested, but it is evident that the financial cost of such universities would be great, and hardly likely to be justified by the results. One of the great needs of the time is to cheapen university education, and to make it available for classes which at present are largely debarred from it for financial reasons. Separate universities for the sexes would probably tend to accentuate financial difficulties. Naturally, separate hostels would need to be provided.

The general question how far the association of the sexes in secondary and higher education exercises a beneficial influence upon those engaged in it, is a question of great interest, and one with regard to which we have little authoritative inform-It is noteworthy that any hostility which is shown to co-education comes rather from school-mistresses than from schoolmasters. Some of the former think that boys exercise a depressing effect upon girls. If we raise the delicate question whether boys are more likely to learn habits of refinement from girls, or girls to acquire habits of mannishness from boys, we get no confident answer. The spirit of emulation between the sexes may have its good and its bad side, the former probably predominating. co-education between the sexes in university life there is the argument that it is a good preparation for co-operation between the sexes in after life. Another question of some difficulty and delicacy is whether the association of the sexes in education is likely to lead to a more natural and healthy outlook upon sex problems, to diminish pruriency and artificiality, and to render the young better fitted to face the world. This is a subject upon which we should much desire further information from competent and unprejudiced observers.

Another important biological problem may be here adverted to, viz., how far the higher education of women affects their prospects of marriage and their fertility in child-bearing. Many years ago

statistics were published as regards the proportion of graduates in one of the great university colleges for women in England who The proportion was found to be about fifty afterwards married. per cent. Later statistics from Holyoake gave similar figures, and the average family of married graduates was less than two children. At Bryn Mawr the proportion of marriages was forty-three per cent, and the average family was 0.83. That university women are relatively infertile is the general experience, but some caution is necessary in the interpretation of the statistics. Enquiries instituted by Mrs. Sidgwick, Dr. Greenwood, and others have shown that, on the average, university women marry a year later than those who have not had a university education, and it is well known that fertility in marriage has a close relation to the age of the mother at the time of marriage. In general terms the normal expectation of family in the case of a woman marrying at 19 or 20 is about 5 children. At the age of 30 the expectation is about 2 or 3 children, and after 40 about 1 child. That the difference of one year at the time of marriage in university women supplies the explanation of their relative infertility may be doubtful, but it is clearly a factor of some importance.

The more we reflect upon the mental differences between the sexes, the more we shall be disposed to trace them mainly to two factors—first, the differences arising from the contrast between the maternal and paternal functions, and secondly, the differences arising from the different rôles imposed upon the sexes in the slow course of an age-long evolution. The male developed the qualities of pugnacity, strength and courage because he had freedom of movement, because he was the hunter, the combatant, the protector of the family. The female was relatively immobile, more or less tied to the family and the home, suspicious of change, and hence normally conservative. The superior fidelity of the female in marriage owed something to similar considerations. On the other hand, the most errant of men—the sailor—is proverbially the most fickle—"Jack has a wife in every port." Such facts teach us a lesson in the evolution of man, and make us disposed to trace many sexual differences to a long process of adaptation to the environment.

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How far is it sound policy to direct female education on the assumption that women are fitted to fill most of the rôles in life hitherto usually reserved to men?

This is a far-reaching question, and peculiarly difficult owing to the fact that in relation to the all-important matter of race

fitness and survival the two sexes are in a position of marked inequality. The maternal function involves many restrictions upon action, the paternal function involves few restrictions. motherhood is compatible with success in industrial, professional, literary, scientific, artistic, and political life is a question of much importance, upon which we should do well to exercise much caution of judgment. That it involves some difficulties and limitations, is In the race for success and distinction in these various fields of action, it is clear that woman carries a certain amount of handicap. There is, however, another aspect of this question. Not all women marry, not all married women have children, and in the conditions of modern civilization it is clear that the single woman and the childless woman, already numerous, are likely to increase in number. Is female education to be adapted to the needs of the prospective mother, or the prospective bachelor woman, or is any compromise between these conflicting ideals possible? These questions call for much hard thinking. The racial point of view tends to give place to the individual point of view, but it is clear that here may lurk certain dangers. It is not in the interests of the race that the more gifted women should in a large proportion refrain from matrimony, while the dull-witted women furnish the mothers of the future race. If this were the real alternative, the higher education of women might be too dearly bought. dilemma is a real one.

When we look at these questions in the light of present experience, we should pause before deciding that women are incapable, by reason of sex, of filling any of the rôles, with probably a few exceptions, which have usually been reserved for men. Take the greatest rôle of all-kingship. The queens of history make a very respectable showing in comparison with the kings. Boadicea, Semiramis, Zenobia, Cleopatra, Elizabeth, Catherine, Victoria it would be easy to extend the list—will hold their own with kings and emperors. To come down to industries and professions—there are few men of business more shrewd or more competent than the Frenchwoman who is a shopkeeper or a tradeswoman. professions woman has hitherto had only a very limited opportunity. She is, however, already well established in the medical profession, and making some way in the legal profession. The Churches are beginning to talk about removing the ban upon the pulpit. parliament the number of women is increasing, and even the Cabinet has its female representative. In the teaching profession woman holds a high and in some departments a dominant position. The only safe rule in this important matter is—Remove all artificial

barriers. Let us have the great Napoleon rule—la carriere ouverte aux talents.

Is education of the young in the facts of the sex life necessary or desirable, and, if so, by whom and when should it be given?

This question is now exciting great attention in England, France, Germany, America, and elsewhere, and the problems involved in it are demanding solution. It is generally realized that these problems are of peculiar and indeed of unique difficulty, but that they cannot be safely ignored. The arguments for imparting sex knowledge to the young might be summarized as follows:—

- a. That it is a reproach to our methods of education and to our civilization that the young have no legitimate, natural, and healthy means of acquiring the sex knowledge which must be theirs sooner or later.
- b. That sex knowledge often comes to the young from a tainted source, and through undesirable channels.
- c. That, if sex knowledge has its dangers, sex ignorance has still greater dangers.
- d. That the young are not warned in time against the evils which arise from breaches of the law of sexual purity.
- e. That it is foolish to invest the whole domain of sex life with the atmosphere of secrecy, as this attitude stimulates curiosity and tends to pruriency.
- f. That the natural questions of the children meet with evasive or untrue replies, which have the double disadvantage of shaking the confidence of the young in their parents and teachers, and missing the opportunity of imparting in a natural way information which might be of great value.
- g. That to allow the shadow of indecency to overhang all sex questions is a survival of monkery or perhaps of Manichaeism.

The counter arguments might be summarized as follows:—

- a. That it is dangerous to excite a premature interest in questions of sex.
- b. That nature seems to have drawn a veil over these matters, and that this veil may conceal some profound biological purpose.

- c. That the natural modesty and reserve of the young regarding questions of sex are admirable qualities, and a protection from the perils of life.
- d. That premature sex revelations are found in certain cases, and especially in girls, to be alarming and even repulsive.
- e. That it is extremely difficult to determine when and by whom sex knowledge should be given to the young.
- f. That sex knowledge may come instinctively, in good time and by a process of natural evolution, and that this is the more desirable method.

Whether these arguments are equally balanced, or whether the scale inclines one way or the other, is the question which deserves and in some quarters is receiving serious attention to-day. It cannot safely be shirked. We are not without some practical experience in this difficult subject. Some teachers practise sex instruction, and maintain that it can be given successfully and usefully. Others are doubtful. Few, however, dispute the general view that the veil of secrecy which has shrouded the question of sex knowledge has been drawn too closely, and that more frankness and courage are needed. All are agreed that the difficulty is much greater in the case of girls than in the case of boys.

The next question is—By whom and when should sex knowledge be imparted? There are evidently three possibilities: the parents, the teachers, or the doctor. Parents have the first responsibility, but they labour under the disadvantage of being for the most part ill-equipped for the task, lacking in scientific knowledge, and uninstructed in the best method of approaching a difficult and delicate question. Many of them, probably most of them, find the subject frankly unapproachable, and take refuge in the thought that the responsibility can be shifted to the shoulders of others. The doctor has all the requisite special knowledge, and his aid may sometimes be of signal service, but he is likely to be called in only when there is something wrong, and it is undesirable to invest this subject with any element of the pathological. There remains the teacher. Teachers much need some guidance on this difficult question. It would be difficult to improve on the following rules suggested by Professor J. Arthur Thomson:

a. While respecting the natural instinct of reserve in regard to sex questions, something might be done to suggest that mystery is observed because sex is sacred, not because it is inherently shameful or unclean.

b. Much may be done through nature study—for younger pupils—and biological studies, for senior pupils, to remove the facts of sex and reproduction from a purely human and personal setting, to exhibit them as natural phenomena at many different grades of evolution, to put an end to pruriency, and to make the big facts about the continuance of life familiar in the botanical and zoological fields—leaving it to the ordinary intelligence to see the human applications.

As regards the avoidance of pathological questions, the difficulty is that some of our leading journals now deal quite frankly with such questions as the prevention and control of venereal disease, and these papers must often find their way into the hands of the young people, who are probably much puzzled by what they read. This strengthens the argument for sex education.

Professor Julian Huxley sums up the best scientific opinion on this subject as follows:—"If matters concerning sex are treated properly during a child's development and education, the necessity for psycho-analysis, and any expression of analytic knowledge of the foundations of one's own mind that it may bring, is done away with. If it can be ensured that there is no obvious avoidance of the subject leading to repression in the child's mind, and, on the other hand, no undue prominence given to it so that a morbid curiosity is aroused, a large proportion of the conflicts that now arise could be avoided. The other necessity is that there should be provision for sublimation—art or music, or social service, or in one's work, in religion, or, in modified form, in sport or romance."