

attempt to bend things to our preconceived notions of what they should be is the fundamental of many errors.

The absence of the true Scientific spirit in our day is nowhere more evident than in the popular judgment of this matter of the Education of women. There is scarcely any subject on which there is among men so much dogmatic assertion based on the imaginary results of a hypothetical experiment, and sometimes having not even so much basis as this. It has been affirmed; and not in this age and country alone, that women do not *need* to be taught Science, an immediate and direct utility being all that has been kept in view, and the true end lost sight of.

By some it is maintained that women do not need to learn Science to make them better women or abler to help and bless the world, and also that they are incapable of being scientifically educated. Those who make this double assertion are consistent, so far as their theory goes; for if their theory be true, God has done wisely in so far that He has limited the capacity to the need, as in the case of the lower animals, to whom He has given neither the need nor the capacity for a scientific education. But experiment, so far as it has gone in the education of women, has thrown these unscientific persons into an inconsistency. For they either have to prove in the face of experiment, by some arguments not yet discovered, that their position is a consistent one, or they have to keep up their position; the only other alternative being that they should accuse the Creator of women of a great folly. For when they confess (and now facts drive them to this confession) that women are very capable indeed of receiving a true scientific education, and while they at the same time declare that women do not need such scientific education, inasmuch as it will not, they say, make them better women, wives, and mothers, they traduce the wisdom of God, who gave to these women the capacity for Science, and who has adjusted every means to an end, as Science hath itself shown, and every gift to some good result to be wrought out by the use of it. And herein, they being not only theorizers on this head, but being the stronger, and therefore practically the awarders to women of such share in the means of knowledge and education as they think fit to grant to them, they are not only impugners of the loving wisdom of God, who adapted women's brains to the end which He designed for their exercise, but they create a great moral evil, and a sorrow, and a loss, by this shutting up of powers, and by this denial to women of the means of using and improving the good gifts which they have got. Truly those who will not base their theories concerning such weighty things on true experiment are continually driven to accuse God of folly, as palpably as a zoologist would who should shut up an eagle within a narrow cage for its life, and then assert that it never mounted into the air, could not do so, and did not need to do so, albeit he had found by examination that its pinions were so constructed as to lift it forward and upward with a great strength and swiftness.

Now, speaking from experience, I should readily say that there is as great an aptitude for the study of these things in the mind of a woman of average capacity as in the mind of a man of the same. For, of all things, that which is required to pursue the study of Science is that which that study doth itself generate—a certain humility of mind, which I think I have observed, at least in these matters, to be greater among women than among men—whereby they are led to hold their conclusions rather in suspense, which is the desirable state of mind for the pursuit of Science.

But there is one objection which I believe to lie near the heart of many people when it is proposed that Science should be taught to women, or at any rate when it is proposed that it should form an introduction to their education, and any large portion of it: that is, that it is a kind of study which unfits them for the duties which more particularly belong to them; it is, say they, a harsh, masculine sort of study; it is one opposed to woman's grace and woman's simplicity; to that noble character of a true woman, which is so fair a thing in the world. This is

an objection to which, if it were valid, I would readily give place, very different from that unkindly one which would deny them the study of it because they do not clamor for it. Yet I do not fear but that Nature will ever vindicate herself, and the glorious character of true womanhood would rise from all the attacks of a false Science; for I have seen it rise hitherto above the lack of true Science. Nor am I so distrustful of the strength of woman's nature as to think it to be in such unstable unquilibrium. Nay, but there is in woman's nature that peculiar union of humility and of conviction which all Science is, as I would take it, God-sent into the world to teach, whereby she is led to assimilate those lessons therein to which her own heart is tuned, as in music those strings that are tuned to a certain note do vibrate when that note is sounded.

There are many women who are now saying, after but a short period of instruction in Science, that they look upon these studies as little less than divine. Whereby they mean that they have brought to their minds and hearts a degree of that help and strength, light and health, which they are accustomed to recognize as a direct gift from God, whether he sends them by means of these messages of his which are hidden up and down everywhere in the natural world, or in answer to the prayer of the humble soul without these things. They say that these studies supply them with a constant store of great thoughts; and in this they are a true blessing to them; for inasmuch as the thoughts which usually press most on the minds of women are of too personal and subjective a kind, and are connected with the troubled and unrestful life of man on earth, and with the small details and anxious cares of daily living, the thoughts engendered by the study of Mathematics and Physical Science, in most of its branches at least, are above all these, in a calm region wherein we find inexhaustible matter for wonder, and joy, and worship, and praise. And we do the duties of earth better when our minds dwell among the harmonies of God, and not always among the discords of human society. Women have often said that they were able to return with a calm mind to the right performance of domestic work after going out to gaze for awhile upon the great multitude of stars on a cloudless night; and they now say that the calmness and strength so attained is far more permanent and real when to the mere sentiment of beauty, which however may be a powerful aid, is added some knowledge of the wondrous working, in the laws which regulate the universe, of the Supreme will and control of Him who made them all.

The Value of Education.

There are few things about which people are so much agreed as on the value of education. Though they are not prepared very often to explain what they mean by education, and not very apt in determining what its value is, they assent to the general statement that it is of the highest value, without hesitation, and on all occasions. It is not difficult to explain why the precise appreciation of its value is rare, and why the precise signification of the word "education" is seldom arrived at. To make out, however, what each of these terms imports, is of prime necessity.

Education differs from information or knowledge. The latter is of a special character, the purport of which is to fit a man for bringing about certain definite results by the immediate operation of that knowledge which he possesses. We talk, indeed, of the education of a lawyer, a doctor, and a clergyman—of an engineer, a soldier, or a sailor; generally meaning by it the information or knowledge which he has acquired for the immediate exercise of his vocation. But law, medicine, divinity, mechanics, strategies and navigation are not education. A man may possess any one of them and be well nigh illiterate, though of course some can more possibly co-exist with want of education than others. One can conceive that a man may have a profound practical acquaintance with law, and be an uneducated person. Again to quote an instance, the first Duke of Marlborough was