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James Mill, *Education* [1825]



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E D U C A T I O N,

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# EDUCATION. Introduction.—Extent of the Subject.—The different Questions which it involves. The end of Education is to render the individual, as much as possible, an instrument of happiness, first to himself, and next to other beings. The properties, by which he is fitted to become an instrument to this end, are, partly, those of the body, and partly those of the mind. Happiness depends upon the condition of the body, either immediately, as where the bodily powers are exerted for the attainment of some good; or mediately, through the mind, as, where the condition of she body affects the qualities of the mind. Education, in the sense in which it is usually taken, and in which it shall here be used, denotes the means which easy be employed to render the mind, as far as possible, an operative cause of happiness. The mode in which the body may be rendered the most fit for operating as an instrument of happiness is generally considered as a different species of inquiry; belonging to physicians, and others, who study the means of perfecting the bodily powers. Education, then, in the sense in which we are now using the term, may be defined, the best employment of all the means which can be made use of, by man, for rendering the human mind to the greatest possible degree the cause of human happiness. Every thing, therefore, which operates, from the first germ of existence, to the final extinction of life, in such a manner as to affect those qualities of the mind on which happiness in any degree depends, comes within the scope of the present inquiry. Not to turn every thing to account is here, if any where, bad economy, in the most emphatical sense of the phrase. The field, it will easily be seen, is enceedingly comprehensive. It is everywhere, among enlightened men, a subject of the deepest complaint, that the business of education is ill performed; and that, in this, which possible might have been supposed the ruest interesting of all human concerns, the

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### EDUCATION.

# Introduction.—Extent Of The Subject.—The Different Questions Which It Involves.

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The field, it will easily be seen, is exceedingly comprehensive. It is everywhere, among enlightened men, a subject of the deepest complaint, that the business of education is ill performed; and that, in this, which might have been supposed the most interesting of all human concerns, the practical proceedings are far from corresponding with the progress of the human mind. It may be remarked, that, notwithstanding all that has been written on the subject, even the *theory* of education has not kept pace with philosophy; and it is unhappily true, that the *practice* remains to a prodigious distance behind the theory. One reason why the theory, or the combination of ideas which the present state of knowledge might afford for improving the business of education, remains so imperfect, probably is, that the writers have taken but a partial view of the subject; in other words, the greater number have mistaken a part of it for the whole. And another reason of not less importance is, that they have generally contented themselves with vague ideas of the object or end to which education is required as the means. One grand purpose of the present inquiry

will be to obviate all those mistakes; and, if not to exhibit that comprehensive view, which we think is desirable, but to which our limits are wholly inadequate; at any rate, to conduct the reader into that train of thought which will lead him to observe for himself the boundaries of the subject. If a more accurate conception is formed of the end, a better estimate will be made of what is suitable as the means.

- 1. It has been remarked, that every thing, from the first germ of existence to the final extinction of life, which operates in such a manner as to affect those qualities of the mind on which happiness in any degree depends, comes within the scope of the present inquiry. Those circumstances may be all arranged, according to the hackneyed division, under two heads: They are either physical or moral; meaning by physical, those of a material nature, which operate more immediately upon the material part of the frame; by moral, those of a mental nature, which operate more immediately upon the mental part of the frame.
- 2. In order to know in what manner things operate upon the mind, it is necessary to know how the mind is constructed. *Quicquid recipitur, recipitur ad modum recipientis*. This is the old aphorism, and nowhere more applicable than to the present case. If you attempt to act upon the mind, in ways not adapted to its nature, the least evil you incur is to lose your labor.
- 3. As happiness is the end, and the means ought to be nicely adapted to the end, it is necessary to inquire, What are the qualities of mind which chiefly conduce to happiness,—both the happiness of the individual himself, and the happiness of his fellow-creatures?

It appears to us, that this distribution includes the whole of the subject. Each of these divisions branches itself out into a great number of inquiries. And, it is manifest, that the complete developement of any one of them would require a greater space than we can allow for the whole. It is, therefore, necessary for us, if we aim at a comprehensive view, to confine ourselves to a skeleton.

The first of these inquiries is the most practical, and, therefore, likely to be the most interesting. Under the Physical Head, it investigates the mode in which the qualities of the mind are affected by the health, the aliment, the air, the labour, &c. to which the individual is subject. Under the Moral Head it includes what may be called, 1. Domestic Education, or the mode in which the mind of the individual is liable to be formed by the conduct of the individuals composing the family in which he is born and bred: 2. Technical or scholastic education, including all those exercises upon which the individual is put, as means to the acquisition of habits,—habits either conducive to intellectual and moral excellence, or even to the practice of the manual arts: 3, Social education, or the mode in which the mind of the individual is acted upon by the nature of the political institutions under which he lives.

The two latter divisions comprehend what is more purely theoretical; and the discussion of them offers fewer attractions to that class of readers, unhappily numerous, to whom intellectual exercises have not by habit been rendered delightful. The inquiries, however, which are included under these divisions, are required as a

foundation to those included under the first. The fact is, that good practice can, in no case, have any solid foundation but in sound theory. This proposition is not more important, than it is certain. For, What is theory? The *whole* of the knowledge, which we possess upon any subject, put into that order and form in which it is most easy to draw from it good practical rules. Let any one examine this definition, article by article, and show us that it fails in a single particular. To recommend the separation of practice from theory is, therefore, simply, to recommend bad practice.

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### SECTION I.

# Theory Of The Human Mind.—Its Importance In The Doctrine Of Education.

1. The first, then, of the inquiries, embraced by the great subject of education, is that which regards the nature of the human mind; and the business is, agreeably to the foregoing definition of theory, to put the knowledge which we possess respecting the human mind, into that order and form, which is most advantageous for drawing from it the practical rules of education. The question is, How the mind, with those properties which it possesses, can, through the operation of certain means, be rendered most conducive to a certain end? To answer this question, the whole of its properties must be known. The whole science of human nature is, therefore, but a branch of the science of education. Nor can education assume its most perfect form, till the science of the human mind has reached its highest point of improvement. Even an outline, however, of the philosophy of the human mind would exceed the bounds of the present article; we must, therefore, show what ought to be done, rather than attempt, in any degree, to execute so extensive a project.

With respect to the human mind, as with respect to every thing else, all that passes with us under the name of knowledge is either matter of experience, or, to carry on the analogy of expression, matter of guess. The first is real knowledge; the properties of the object correspond to it. The latter is supposititious knowledge, and the properties of the object do or do not correspond to it; most likely not. The first thing desirable is, to make an exact separation of those two kinds of knowledge; and, as much as possible, to confine ourselves to the first.

What, then, is it which we experience with regard to the human mind? And what is it which we guess? We have experience of ourselves, when we see, when we hear, when we taste, when we imagine, when we fear, when we love, when we desire; and so on. And we give names, as above, to distinguish what we experience of ourselves, on one of those occasions, from what we experience on another. We have experience of other men exhibiting signs of having similar experiences of themselves, that is, of seeing, hearing, and so on. It is necessary to explain, shortly, what is here meant by a sign. When we ourselves see, hear, imagine, &c. certain actions of ours commonly follow. We know, accordingly, that if any one, observing those actions, were to infer that we had been seeing, hearing, &c. the inference would be just. As often then as we observe similar actions in other men, we infer that they, too, have been seeing or hearing; and we thus regard the action as the sign.

Having got names to distinguish the state or experience of ourselves, when we say, *I see, I hear, I wish*, and so on; we find occasion for a name which will distinguish the having any (be it what it may) of those experiences, from the being altogether without them; and, for this purpose, we say, *I feel*, which will apply, generally, to any of the cases in which we say, *I see*, or *hear*, or *remember*, or *fear*; and comprehends the

meaning of them all. The term *I think*, is commonly used for a purpose nearly the same. But it is not quite so comprehensive: there are several things which we should include under the term *our experience of our mind*, to which we should not extend the term *I think*. But there is nothing included under it to which we should not extend the term *I feel*. This is truly, therefore, the generic term.

All our experience, then, of the human mind, is confined to the several occasions on which the term *I feel* can be applied. And, now, What does all this experience amount to? What is the knowledge which it affords? It is, first, a knowledge of the *feelings* themselves; we can remember what, one by one, they were. It is, next, a knowledge of the order in which they follow one another; and this is all. But this description, though a just one, is so very general as to be little instructive. It is not easy, however, to speak about those feelings minutely and correctly; because the language which we must apply to them, is ill adapted to the purpose.

Let us advert to the first branch of this knowledge, that of the feelings themselves. The knowledge of the simple cases, may be regarded as easy; the feeling is distinct at the moment of experience, and is distinctly remembered afterwards. But the difficulty is great with the complex cases. It is found, that a great number of simple feelings are apt to become so closely united, as often to assume the appearance of only one feeling, and to render it extremely difficult to distinguish from one another the simple feelings of which it is composed. And one of the grand questions which divide the philosophers of the present day, is, which feelings are simple, and which are complex. There are two sorts which all have regarded as simple: those which we have when we say, I hear, I see, I feel, I taste, I smell, corresponding to the five senses, and the copies of these sensations, called ideas of sense. Of these, the second take place only in consequence of the first, they are, as it were, a revival of them; not the same feelings with the sensations or impressions on the senses, but feelings which bear a certain resemblance to them. Thus, when a man sees the light of noon, the feeling he has is called an *impression*,—the impression of light; when he shuts his eyes and has a feeling,—the type or relict of the impression,—he is not said to see the light, or to have the *impression* of light, but to *conceive* the light, or have an idea of it.

These two,—*impressions*, and their corresponding *ideas*,—are simple feelings, in the opinion of all philosophers. But there is one set of philosophers who think that these are the only simple feelings, and that all the rest are merely combinations of them. There is another class of philosophers who think that there are original feelings beside impressions and ideas; as those which correspond to the words *remember*, *believe*, *judge*, *space*, *time*, &c. Of the first are Hartley and his followers in England, Condillac and his followers in France; of the second description are Dr. Reid and his followers in this country, Kant and the German school of metaphysicians in general on the Continent.

It is evident, that the determination of this question with regard to the first branch of enquiry, namely, what the feelings are, is of very great importance with regard to the second branch, namely, what is the order in which those feelings succeed one another. For how can it be known how they succeed one another, if we are ignorant which of them enter into those several groups which form the component parts of the train? It is

of vast importance, then, for the business of education, that the analysis of mind should be accurately performed; in other words, that all our complex feelings should be accurately resolved into the simple ones of which they are composed. This, too, is of absolute necessity for the accurate use of language; as the greater number of words are employed to denote those groups of simple feelings which we call complex ideas.

In regard to all events, relating to mind or body, our knowledge extends not beyond two points: The first is, a knowledge of the events themselves; the second is, a knowledge of the order of their succession. The expression in words of the first kind of knowledge is history; the expression of the second is philosophy; and to render that expression short and clear is the ultimate aim of philosophy.

The first steps in ascertaining the order of succession among events are familiar and easy. One occurs, and then another, and after that a third, and so on; but at first it is uncertain whether this order is not merely accidental, and such as may never recur. After a time it is observed, that events, similar to those which have already occurred, are occurring again and again. It is next observed, that they are always followed, too, by the same sort of events by which those events were followed to which they are similar; that these second events are followed, in the third place, by events exactly similar to those which followed the events which they resemble; and that there is, thus, an endless round of the same sequences.

If the order in which one event follows another were always different, we should know events only one by one, and they would be infinitely too numerous to receive names. If we could observe none but very short sequences, if, for example, we could ascertain that one event was, indeed, always followed by one other of the same description, but could not trace any constancy farther, we should thus know events by sequences of twos and twos. But those sequences would also be a great deal too numerous to receive names.

The history of the human mind informs us, that the sequences which are first observed are short ones. They are still, therefore, too numerous to receive names. But men compound the matter. They give names to sequences which they are most interested in observing, and leave the rest unnamed. When they have occasion to speak of the unnamed successions, they apply to them, the best way they can, the names which they have got; endeavouring to make a partial naming answer an universal purpose. And hence almost all the confusion of language and of thought arises.

The great object, then, is, to ascertain sequences more and more extensive, till, at last, the succession of all events may be reduced to a number of sequences sufficiently small for each of them to receive a name; then, and then only, shall we be able to speak wholly free from confusion.

Language affords an instructive example of this mode of ascertaining sequences. In language, the words are the events. When an ignorant man first hears another speak an unknown language, he hears the sounds one by one, but observes no sequence. At last he gathers a knowledge of the use of a few words, and then he has observed a few sequences; and so he goes on till he understands whatever he hears. The sequences,

however, which he has observed, are of no greater extent than is necessary to understand the meaning of the speaker; they are, by consequence, very numerous and confusing.

Next comes the grammarian; and he, by dividing the words into different kinds, observes that these kinds follow one another in a certain order, and thus ascertains more enlarged sequences, which, by consequence reduces their number.

Nor is this all; it is afterwards observed, that words consist, some of one syllable, and some of more than one; that all language may thus be resolved into syllables, and that syllables are much less in number than words; that, therefore, the number of sequences in which they can be formed are less in number, and, by consequence, are more extensive. This is another step in tracing to the most comprehensive sequences the order of succession in that class of events wherein language consists.

It is afterwards observed, that these syllables themselves are compounded; and it is at last found, that they may all be resolved into a small number of elementary sounds corresponding to the simple letters. All language is then found to consist of a limited number of sequences, made up of the different combinations of a few letters.

It is not pretended that the example of language is exactly parallel to the case which it is brought to illustrate. It is sufficient if it aids the reader in seizing the idea which we mean to convey. It shews the analogy between the analysing of a complex sound, namely, a word, into the simple sounds of which it is composed, to wit, letters; and the analysing of a complex feeling, such as the idea of a rose, into the simple feelings of sight, of touch, of taste, of smell, of which the complex idea or feeling is made up. It affords, also, a proof of the commanding knowledge which is attained of a train of events, by observing the sequences which are formed of the simplest elements into which they can be resolved; and it thus illustrates the two grand operations, by successful perseverance in which the knowledge of the human mind is to be perfected.

It is upon a knowledge of the sequences which take place in the human feelings or thoughts, that the structure of education must be reared. And, though much undoubtedly remains to be cleared up, enough is already known of those sequences to manifest the shameful defects of that education with which our supineness, and love of things as they are, rest perfectly satisfied.

As the happiness, which is the end of education, depends upon the actions of the individual, and as all the actions of man are produced by his feelings or thoughts, the business of education is, to make certain feelings or thoughts take place instead of others. The business of education, then, is to work upon the mental successions. As the sequences among the letters or simple elements of speech, may be made to assume all the differences between nonsense and the most sublime philosophy, so the sequences, in the feelings which constitute human thought, may assume all the differences between the extreme of madness and of wickedness, and the greatest attainable heights of wisdom and virtue: And almost the whole of this is the effect of education. That, at least, all the difference which exists between classes or bodies of men is the effect of education, will, we suppose, without entering into the dispute

about individual distinctions, be readily granted; that it is education wholly which constitutes the remarkable difference between the Turk and the Englishman, and even the still more remarkable difference between the most cultivated European and the wildest savage. Whatever is made of any *class* of men, we may then be sure is possible to be made of the whole human race. What a field for exertion! What a prize to be won!

Mr. Hobbs, who saw so much further into the texture of human thought than all who had gone before him, was the first man, as far as we remember, who pointed out (what is peculiarly *knowledge* in this respect) the order in which our feelings succeed one another, as a distinct object of study. He marked, with sufficient clearness, the existence, and the cause of the sequences; but, after a very slight attempt to trace them, he diverged to other inquiries, which had this but indirectly for their object.

"The succession," he says (Human Nature, ch. 4.) "of conceptions, in the mind, series or consequence" (by consequence he means sequence) "of one after another, may be casual and incoherent, as in dreams, for the most part; and it may be orderly, as when the former thought introduceth the latter. The cause of the coherence or consequence (sequence) of one conception to another, is their first coherence or consequence at that time when they are produced by sense; as, for example, from St. Andrew the mind runneth to St. Peter, because their names are read together; from St. Peter to a stone, for the same cause; from stone to foundation, because we see them together; and, according to this example, the mind may run almost from any thing to any thing. But, as in the sense, the conception of cause and effect may succeed one another, so may they, after sense, in the imagination." By the succession in the imagination it is evident he means the succession of ideas, as by the succession in sense he means the succession of sensations.

Having said that the conceptions of *cause* and *effect* may succeed one another in the sense, and after sense in the imagination, he adds, "And, for the most part, they do so; the cause whereof is the appetite of them who, having a conception of the *end*, have next unto it a conception of the next *means* to that end; as when a man from a thought of honour, to which he hath an appetite, cometh to the thought of wisdom, which is the next means thereunto; and from thence to the thought of study, which is the next means to wisdom." (Ib.) Here is a declaration with respect to three grand laws in the sequence of our thoughts. The first is, that the succession of ideas follows the same order which takes place in that of the impressions. The second is, that the order of cause and effect is the most common order in the successions in the imagination, that is in the succession of ideas. And the third is, that the appetites of individuals have a great power over the successions of ideas; as the thought of the object which the individual desires, leads him to the thought of that by which he may attain it.

Mr. Locke took notice of the sequence in the train of ideas, or the order in which they follow one another, only for a particular purpose;—to explain the intellectual singularities which distinguish particular men. "Some of our ideas," he says, "have a natural correspondence and connection one with another. It is the office and excellence of our reason to trace these, and hold them together in that union and correspondence which is founded in their peculiar beings. Besides this, there is

another connexion of ideas, wholly owing to chance or custom; ideas that are not at all of kin come to be so united in some men's minds, that it is very hard to separate them; they always keep in company, and the one no sooner at any time comes into the understanding, but its associate appears with it; and if they are more than two which are thus united, the whole gang, always inseparable, show themselves together." There is no attempt here to trace the order of sequence, or to ascertain which antecedents are followed by which consequents; and the accidental, rather than the more general phenomena, are those which seem particularly to have struck his attention. He gave, however, a name to the matter of fact. When one idea is regularly followed by another, he called this constancy of conjunction *the association of the ideas;* and this is the name by which, since the time of Locke, it has been commonly distinguished.

Mr. Hume perceived much more distinctly than any of the philosophers who had gone before him, that to philosophize concerning the human mind, was to trace the order of succession among the elementary feelings of the man. He pointed out three great laws or comprehensive sequences, which he thought included the whole. Ideas followed one another, he said, according to resemblance, contiguity in time and place, and cause and effect. The last of these, the sequence according to cause and effect, was very distinctly conceived, and even the cause of it explained by Mr. Hobbs. That of contiguity in time and place is thus satisfactorily explained by Mr. Hume. "It is evident," he says, "that as the senses, in changing their objects, are necessitated to change them regularly, and take them as they lie contiguous to each other, the imagination must, by long custom, acquire the same method of thinking, and run along the parts of space and time in conceiving its objects." (Treatise of Human *Nature*, P. 1. B. 1. sect. 4.) This is a reference to one of the laws pointed out by Hobbs, namely, that the order of succession among the ideas, follows the order that took place among the impressions. Mr. Hume shows, that the order of sense is much governed by contiguity, and why; and assigns this as a sufficient reason of the order which takes place in the imagination. Of the next sequence, that according to resemblance, he gives no account, and only appeals to the consciousness of his reader for the existence of the fact. Mr. Hume farther remarked, that what are called our complex ideas, are only a particular class of cases belonging to the same law—the law of the succession of ideas; every complex idea being only a certain number of simple ideas, which succeed each other so rapidly, as not to be separately distinguished without an effort of thought. This was a great discovery; but it must at the same time be owned, that it was very imperfectly developed by Mr. Hume. That philosopher proceeded, by aid of these principles, to account for the various phenomena of the human mind. But though he made some brilliant developements, it is nevertheless true, that he did not advance very far in the general object. He was misled by the pursuit of a few surprising and paradoxical results, and when he had arrived at them he stopped.

After him, and at a short interval, appeared two philosophers, who were more soberminded, and had better aims. These were Condillac and Hartley. The first work of Condillac appeared some years before the publication of that of Hartley; but the whole of Hartley's train of thought has so much the air of being his own, that there is abundant reason to believe the speculations of both philosophers equally original.

They both began upon the ground that all simple ideas are copies of impressions; that all complex ideas are only simple ideas united by the principle of association. They proceeded to examine all the phenomena of the human mind, and were of opinion that the principle of association, or the succession of one simple idea after another, according to certain laws, accounts for the whole; that these laws might, by meditation, be ascertained and applied; and that then the human mind would be understood, as far as man has the means of knowing it.

The merit of Condillac is very great. It may yet, perhaps, be truer to say, that he wrote admirably upon philosophy, than that he was a great philosopher. His power consists in expression; he conveys metaphysical ideas with a union of brevity and clearness which never has been surpassed. But though he professed rather to deliver the opinions of others, than to aim at invention, it cannot be denied that he left the science of the human mind in a much better state than he found it; and this is equivalent to discovery. As a teacher, in giving, in this field, a right turn to the speculations of his countrymen, his value is incalculable; and there is, perhaps, no one human being, with the exception of Locke, who was his master, to whom, in this respect, the progress of the human mind is more largely indebted. It is also true, that to form the conception of tracing the sequences among our simple ideas, as comprehending the whole of the philosophy of the human mind, even with the helps which Hume had afforded, and it is more than probable that neither Condillac nor Hartley had ever heard of a work which, according to its author, had fallen dead-born from the press, was philosophical and sagacious in the highest degree.

It must be allowed, however, that, in expounding the various mental phenomena, Condillac does not display the same penetration and force of mind, or the same comprehensiveness, as Dr. Hartley. He made great *progress* in showing how those phenomena might be resolved into the sequences of simple ideas; but Dr. Hartley made still greater. We do not mean to pronounce a positive opinion either for or against the grand undertaking of Dr. Hartley, to resolve the whole of the mental phenomena of man into sequences of impressions, and the simple ideas which are the copies of them. But we have no hesitation in saying, that he philosophizes with extraordinary power and sagacity; and it is astonishing how many of the mental phenomena he has clearly resolved; how little, in truth, he has left about which any doubt can remain.

We cannot afford to pursue this subject any farther. This much is ascertained,—that the character of the human mind consists in the sequences of its ideas; that the object of education, therefore, is, to provide for the constant production of certain sequences, rather than others; that we cannot be sure of adopting the best means to that end, unless we have the greatest knowledge of the sequences themselves.

In what has been already ascertained on this subject, we have seen that there are two things which have a wonderful power over those sequences. They are, Custom; and Pain and Pleasure. These are the grand instruments or powers, by the use of which, the purposes of education are to be attained.

Where one idea has followed another a certain number of times, the appearance of the first in the mind is sure to be followed by that of the second, and so on. One of the grand points, then, in the study of education, is to find the means of making, in the most perfect manner, those repetitions on which the beneficial sequences depend.

When we speak of making one idea follow another, and always that which makes part of a good train, instead of one that makes part of a bad train, there is one difficulty; that each idea, taken singly by itself, is as fit to be a part of a bad train as of a good one; for good trains and bad trains are both made out of the same simple elements. Trains, however, take place by sequences of twos, or threes, or any greater number; and the nature of these sequences, as complex parts of a still greater whole, is that which renders the train either salutary or hurtful. Custom is, therefore, to be directed to two points; first, to form those sequences, which make the component parts of a good train; and secondly, to join those sequences together, so as to constitute the trains.

When we speak of making one idea follow another, there must always be a starting point; there must be some one idea from which the train begins to flow; and it is pretty evident that much will depend upon this idea. One grand question, then, is, 'What are the ideas which most frequently operate as the commencement of trains?' Knowing what are the ideas which play this important part, we may attach to them by custom, such trains as are the most beneficent. It has been observed that most, if not all, of our trains, start from a sensation, or some impression upon the external or internal nerves. The question then is, which are those sensations, or aggregates of sensations, which are of the most frequent recurrence? it being obviously of importance, that those which give occasion to the greatest number of trains, should be made, if possible, to give occasion only to the best trains. Now the sensations, or aggregates of sensations, which occur in the ordinary business of life, are those of most frequent recurrence; and from which it is of the greatest importance that beneficial trains should commence. Rising up in the morning, and going to bed at night, are aggregates of this description, common to all mankind; so are the commencement and termination of meals. The practical sagacity of priests, even in the rudest ages of the world, perceived the importance, for giving religious trains an ascendancy in the mind, of uniting them, by early and steady custom, with those perpetually recurring sensations. The morning and evening prayers, the grace before and after meals, have something correspondent to them in the religion of, perhaps, all nations.

It may appear, even from these few reflections and illustrations, that, if the sensations, which are most apt to give commencement to trains of ideas, are skilfully selected, and the trains which lead most surely to the happiness, first of the individual himself, and next of his fellow-creatures, are by custom effectually united with them, a provision of unspeakable importance is made for the happiness of the race.

Beside custom, it was remarked by Hobbs, that appetite had a great power over the mental trains. But appetite is the feeling toward pleasure or pain in prospect; that is, future pleasure or pain. To say that appetite, therefore, has power over the mental trains, is to say, that the prospect of pleasure or pain has. That this is true, every man

knows by his own experience. The best means, then, of applying the prospect of pleasure and pain to render beneficent trains perpetual in the mind, is the discovery to be made, and to be recommended to mankind.

The way in which pleasure and pain affect the trains of the mind is, as ends. As a train commences in some present sensation, so it may be conceived as terminating in the idea of some future pleasure or pain. The intermediate ideas, between the commencement and the end, may be either of the beneficent description or the hurtful. Suppose the sight of a fine equipage to be the commencement, and the riches which afford it, the appetite, or the end of a train, in the mind of two individuals at the same time. The intermediate ideas in the mind of the one may be beneficent, in the other hurtful. The mind of the one immediately runs over all the honourable and useful modes of acquiring riches, the acquisition of the most rare and useful qualities, the eager watch of all the best opportunities of bringing them into action, and the steady industry with which they may be applied. That of the other recurs to none but the vicious modes of acquiring riches—by lucky accidents, the arts of the adventurer and impostor, by rapine and plunder, perhaps on the largest scale, by all the honours and glories of war. Suppose the one of these trains to be habitual among individuals, the other not: What a difference for mankind!

It is unnecessary to adduce farther instances for the elucidation of this part of our mental constitution. What, in this portion of the field, requires to be done for the science of education, appears to be, First, to ascertain, what are the ends, the really ultimate objects of human desire; Next, what are the most beneficent means of attaining those objects; and Lastly, to accustom the mind to fill up the intermediate space between the present sensation and the ultimate object, with nothing but the ideas of those beneficent means. We are perfectly aware that these instructions are far too general. But we hope it will be carried in mind, that little beyond the most general ideas can be embraced in so confined a sketch; and we are not without an expectation that, such as they are, these expositions will not be wholly without their use.

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### SECTION II.

# Qualities Of Mind, To The Production Of Which The Business Of Education Should Be Directed.

We come now to the second branch of the science of education, or the inquiry what are the qualities with which it is of most importance that the mind of the individual should be endowed. This enquiry we are in hopes the preceding exposition will enable us very materially to abridge. In one sense, it might undoubtedly be affirmed, that all the desirable qualities of the human mind are included in those beneficent sequences of which we have spoken above. But, as it would require, to make this sufficiently intelligible, a more extensive exposition than we are able to afford, we must content ourselves with the ordinary language, and with a more familiar mode of considering the subject.

That intelligence is one of the qualities in question will not be denied, and may speedily be made to appear. To attain happiness is the object: and, to attain it in the greatest possible degree, all the means to that end, which the compass of nature affords, must be employed in the most perfect possible manner. But all the means which the compass of nature, or the system in which we are placed, affords, can only be known by the most perfect knowledge of that system. The highest measure of knowledge is therefore required. But mere knowledge is not enough; a mere magazine of remembered facts is an useless treasure. Amid the vast variety of known things, there is needed a power of choosing, a power of discerning which of them are conducive, which not, to the ends we have in view. The ingredients of intelligence are two, knowledge and sagacity; the one affording the materials upon which the other is to be exerted; the one, showing what exists; the other, converting it to the greatest use; the one, bringing within our ken what is capable, and what is not capable of being used as means; the other, seizing and combining, at the proper moment, whatever is fittest as means to each particular end. This union, then, of copiousness and energy; this possession of numerous ideas, with the masterly command of them, is one of the more immediate ends to which the business of education is to be directed.

With a view to happiness as the end, another quality will easily present itself as indispensable. Conceive that a man knows the materials which can be employed as means, and is prompt and unerring in the mode of combining them; all this power is lost, if there is any thing in his nature which prevents him from using it. If he has any appetite in his nature which leads him to pursue certain things with which the most effectual pursuit of happiness is inconsistent, so far this evil is incurred. A perfect command, then, over a man's appetites and desires; the power of restraining them whenever they lead in a hurtful direction; that possession of himself which insures his judgment against the illusions of the passions, and enables him to pursue constantly what he deliberately approves, is indispensably requisite to enable him to produce the greatest possible quantity of happiness. This is what the ancient philosophers called temperance; not exactly the same with what is called the virtue or grace of

temperance, in theological morality, which includes a certain portion (in the doctrines of some theological instructors, a very large portion) of abstinence, and not only of abstinence, or the gratuitous renunciation of pleasure, but of the infliction of voluntary pain. This is done with a view to please the God, or object of worship, and to provide, through his favour, for the happiness of a second, or future life. The temperance of the ancient philosophers had a view only to the happiness of the present life, and consisted in the power of resisting the immediate propensity, if yielding to it would lead to an overbalance of evil or prevent the enjoyment of a superior good, in whatever the good or evil of the present life consists. This resisting power consists of two parts; the power of resisting pleasure, and that of resisting pain, the last of which has an appropriate name, and is called Fortitude.

These two qualities, the intelligence which can always choose the best possible means, and the strength which overcomes the misguiding propensities, appear to be sufficient for the happiness of the individual himself; to the pursuit of which it cannot be doubted that he always has sufficient motives. But education, we have said, should be an instrument to render the individual the best possible artificer of happiness, not to himself alone, but also to others. What, then, are the qualities with which he ought to be endowed, to make him produce the greatest possible quantity of happiness to others?

It is evident enough to see what is the first grand division. A man can affect the happiness of others, either by abstaining from doing them harm, or by doing them positive good. To abstain from doing them harm, receives the name of Justice; to do positive good receives that of Generosity. Justice and generosity, then, are the two qualities by which man is fitted to promote the happiness of his fellow-creatures. And it thus appears, that the four cardinal virtues of the ancients do pretty completely include all the qualities, to the possession of which it is desirable that the human mind should be trained. The defect, however, of this description is, that it is far too general. It is evident that the train of mental events which conduct to the proposed results must be far more particularized to insure, in any considerable degree, the effects of instruction; and it must be confessed that the ethical instructions of the ancients failed by remaining too much in generals. What is wanting is, that the incidents of human life should be skillfully classified; both those on the occasion of which they who are the objects of the good acts are pointed out for the receipt of them, and those on the occasion of which they who are to be the instruments are called upon for the performance. It thus appears that the science of Ethics, as well as the science of Intellectuals, must be carried to perfection, before the best foundation is obtained for the science of Education.

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### SECTION III.

# Happiness, The End To Which Education Is Devoted.—Wherein It Consists, Not Yet Determined.

We have spoken of the qualities which are subservient to human happiness, as means to an end. But, before means can be skilfully adapted to an end, the end must be accurately known. To know how the human mind is to be trained to the promotion of happiness, another inquiry then, is necessary; Wherein does human happiness consist? This is a controverted question; and we have introduced it rather with a view to show the place which it occupies in the theory of education, than that we have it in our power to elucidate a subject about which there is so much diversity of opinion, and which some of the disputants lead into very subtle and intricate inquiries. The importance of the question is sufficiently evident from this, that it is the grand central point, to which all other questions and inquiries converge; that point, by their bearing upon which, the value of all other things is determined. That it should remain itself undetermined, implies, that this branch of philosophy is yet far from its highest point of perfection.

The speculations on this subject, too, may be divided into two great classes; that of those who trace up all the elements of happiness, as they do all those of intellect, to the simple sensations which, by their transformation into ideas, and afterwards into various combinations, compose, they think, all the intellectual and moral phenomena of our nature; another, that of those who are not satisfied with this humble origin, who affirm that there is something in human happiness, and in the human intellect, which soars high above this corporeal level; that there are intellectual as well as moral forms, the resplendent objects of human desire, which can by no means be resolved into the grosser elements of sense. These philosophers speak of eternal and immutable truths; truths which are altogether independent of our limited experience; which are truly universal; which the mind recognizes without the aid of the senses; and which are the objects of pure intellect. They affirm, also, that there is a notion of right and of wrong wholly underived from human experience, and independent of the laws which regulate, in this world, the happiness and misery of human life; a right and wrong, the distinction between which is perceived, according to some, by a peculiar sense; according to others, by the faculty which discerns pure truth; according to others, by common sense; it is the same, according to some, with the notion of the fitness and unfitness of things; according to others, with the law of nature; according to others, with truth; and there is one eminent philosopher who makes it depend upon sympathy, without determining very clearly whether sympathy depends upon the senses or not.

We cannot too earnestly exhort philosophers to perfect this inquiry; that we may understand at last, not by vague abstract terms, but clearly and precisely, what are the simple ideas included under the term happiness; and what is the real object to which education is pointed; since it is utterly impossible, while there is any vagueness and

uncertainty with respect to the end, that there should be the greatest precision and certainty in combining the means.

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### SECTION IV.

# Instruments, And Practical Expedients, Of Education.

We come at last to the consideration of the means which are at the disposal of man for endowing the human mind with the qualities on which the generation of happiness depends. Under this head the discussion of the practical expedients chiefly occurs; but it also embraces some points of theory. The degree in which the useful qualities of human nature are, or are not, under the powers of education, is one of the most important.

This is the subject of a famous controversy, with names of the highest authority on both sides of the question. Helvetius, it is true, stands almost alone, on one side. But Helvetius, alone, is a host. No one man, perhaps, has done so much towards perfecting the *theory* of education as Mons. Helvetius; and his books are pregnant with information of the highest importance. Whoever wishes to understand the groundwork of education, can do nothing more conducive to his end, than to study profoundly the expositions of this philosophical inquirer, whether he adopts his conclusions, in all their latitude, or not. That Helvetius was not more admired in his own country, is owing really to the value of his work. It was too solid, for the frivolous taste of the gay circles of Paris, assemblies of pampered noblesse, who wished for nothing but amusement. That he has been so little valued, in this country, is, it must be confessed, owing a little to the same cause; but another has concurred. An opinion has prevailed, a false one, that Helvetius is a peculiarly dangerous enemy to religion; and this has deterred people from reading him; or rather the old people who do not read, have deterred the young who do. There is no book, the author of which does not disguise his unbelief, that can be read with more safety to religion. The author attacks nothing but priestcraft, and in one of the worst of its forms; the popish priestcraft of the dark and middle ages; the idea of which we are well accustomed, in this country, to separate from that of religion. When his phraseology at any time extends, and that is not often, to Christianity itself, or to religion in the abstract, there is nothing calculated to seduce. There is nothing epigrammatic, and sparkling in the expression; nothing sophistical and artfully veiled in the reasoning; a plain proposition is stated, with a plain indication of its evidence; and if your judgment is not convinced, you are not deluded through the fancy.

M. Helvetius says, that if you take men who bring into the world with them the original constituents of their nature, their mental and bodily frame, in that ordinary state of goodness which is common to the great body of mankind,—leaving out of the account the comparatively small number of individuals who come into the world imperfect, and manifestly below the ordinary standard,—you may regard the whole of this great mass of mankind, as equally susceptible of mental excellence; and may trace the causes which make them to differ. If this be so, the power of education embraces every thing between the lowest stage of intellectual and moral rudeness, and

the highest state, not only of actual, but of possible perfection. And if the power of education be so immense, the motive for perfecting it is great beyond expression.

The conclusions of Helvetius were controverted directly by Rousseau; and defended, against the strictures of that writer, by the author himself. We recollect few writers in this country who have embraced them.\* But our authors have contented themselves, rather with rejecting, than disproving; and, at best, have supported their rejection only by some incidental reflection, or the indication of a discrepancy between his conclusions and theirs.

One of the causes, why people have been so much startled, by the extent to which Helvetius has carried the dominion of education, seems to us to be their not including in it nearly so much as he does. They include in it little more than what is expressed by the term schooling; commencing about six or seven years of age, and ending at latest with the arrival of manhood. If this alone is meant by education, it is no doubt true, that education is far indeed from being all-powerful. But if in education is included every thing, which acts upon the being as it comes from the hand of nature, in such a manner as to modify the mind, to render the train of feelings different from what it would otherwise have been; the question is worthy of the most profound consideration. It is probable, that people in general form a very inadequate conception of all the circumstances which act during the first months, perhaps the first moments, of existence, and of the power of those circumstances in giving permanent qualities to the mind. The works of Helvetius would have been invaluable, if they had done nothing more than prove the vast importance of these circumstances, and direct towards them the attention of mankind. Rousseau began this important branch of the study of education. He remarked a variety of important facts, which, till his time, had been almost universally neglected, in the minds of infauts, and how much might be done, by those who surround them, to give good or bad qualities to their minds, long before the time at which it had been supposed that education could commence. But Helvetius treated the subject much more profoundly and systematically. He traced the circumstances to the very moment of birth; he showed at how early an age indelible characters may be impressed; nay, that some of the circumstances over which man has a controul (for he speaks not of others), circumstances on which effects of the greatest importance depend, may be traced beyond the birth.

It is evident how much it imports the science of education, that these circumstances should, by careful and continued observation, be all ascertained, and placed in the order best adapted for drawing from them the most efficient practical rules. This is of more importance than determining the question, whether the prodigious difference, which exists among men ordinarily well organized, is owing wholly to the circumstances which have operated upon them since the first moment of their sensitive existence, or is in part produced by original peculiarities. Enough is ascertained to prove, beyond a doubt, that if education does not perform every thing, there is hardly anything which it does not perform: that nothing can be more fatal than the error of those who relax in the vigilance of education, because nature is powerful, and either renders it impossible for them to accomplish much, or accomplishes a great deal without them: that the feeling is much more conformable to experience, and much more conformable to utility, which ascribes every thing to education, and thus

carries the motive for vigilance and industry, in that great concern, to its highest pitch. This much, at any rate, is ascertained, that all the difference which exists, or can ever be made to exist, between one *class* of men, and another, is wholly owing to education. Those peculiarities, if any such there be, which sink a man below, or elevate him above the ordinary state of aptitude to profit by education, have no operation in the case of large numbers, or bodies. But large numbers or bodies of men are raised to a high degree of mental excellence; and might, without doubt, be raised to still higher. Other large bodies, or whole nations, have been found in so very low a mental state, as to be little above the brutes. All this vast distance is undeniably the effect of education. This much, therefore, may be affirmed on the side of Helvetius, that a prodigious difference is produced by education; while, on the other hand, it is rather assumed than proved, that any difference exists, but that which difference of education creates.

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# Circumstances Of The Physical Kind Which Operate Upon The Mind In The Way Of Education.

The circumstances which are included under the term Education, in the comprehensive sense in which we have defined it, may be divided, we have said, into Physical, and Moral. We shall now consider the two classes in the order in which we have named them; and have here again to remind the reader, that we are limited to the task of pointing out what we should wish to be done, rather than permitted to attempt the performance.

Three things are desirable with regard to the physical circumstances which operate in the way of education favourably or unfavourably; to collect them fully; to appreciate them duly; and to place them in the order which is most favourable for drawing from them practical rules.

This is a service (common to the sciences of education and mind) which has been very imperfectly rendered. It has been chiefly reserved to medical men to observe the physical circumstances which affect the body and mind of man; but of medical men few have been much skilled in the observation of mental phenomena, or have thought themselves called upon to mark the share which physical circumstances had in producing them. There are indeed some, and those remarkable, exceptions. There is Dr. Darwin in our own country, and M. Cabanis in France. They have both of them taken the mind as a part at least of their study; and we are highly indebted to them for the number and value of their observations. They are both philosophers, in the most important sense of the word; they both observed nature for themselves, observed her attentively, and with their view steadily directed to the proper end. But still it is not safe to rely upon them as guides. They were in too great a haste to establish conclusions; and were apt to let their belief run before their evidence. They were not sufficiently careful to distinguish between the different degrees of evidence, and to mark what is required to constitute proof. To do this steadily seems, indeed, to be one of the rarest of all endowments; and was much less the characteristic of the two philosophers we have named, than a wide range of knowledge, from which they collected the facts, and great ingenuity in combining and applying them. Dr. Darwin was the most remarkable, both for the strength and the weakness of which we speak. The work of Darwin, to which we chiefly allude, is the Zoönomia; though important remarks to the same effect are scattered in his other publications. Cabanis entitled his great work, Rapports du Physique et du Moral de l'Homme. And there are some works recently announced by German physiologists, the titles of which promise aids in the same endeavour. But though we expect from them new facts, and ingenious hints, we have less hope of any great number of sound conclusions.

There are certain general names already in use, including the greater number of the physical circumstances which operate in the way of education upon the mind. It will be convenient, because of their commonness, to make use of them on the present occasion, though neither the enumeration which they make is complete, nor the distribution logical.

All the physical circumstances which operate upon the mind are either, 1. inherent in the body; or, 2. external to the body. Those which are external to the body, operate upon the mind, by first operating upon the body.

Of the first kind, the more remarkable seem to be healthiness or sickliness, strength or weakness, beauty or deformity, the temperament, the age, the sex.

Of the second sort, the more remarkable seem to be the aliment, the labour, the air, temperature, action, rest.

Previous to the inquiry concerning the power which physical circumstances exert in the formation of the mind, it may seem that we ought to determine the speculative question respecting the nature of the mind: that is, whether the phenomena of mind may possibly result from a certain organization of matter; or whether something of a different kind, and which we call spiritual, must not be conceived, as the source and organ of thought. We do not mean to enter into this controversy, which would detain us too long. It is not, in the least degree, necessary, for the end which we have in view. Whether the one hypothesis, with respect to the mind, be adopted, or the other, the distribution of the circumstances, which operate in the formation of human character, into those commonly called Physical, and those commonly called Moral, will be as convenient as any distribution which the present state of our knowledge enables us to make; and all that inquiry can do, in regard to those circumstances, is, to trace them accurately, and to observe their effects; that is, to ascertain what they are, and what the order of the mental events by which they are followed. This is simply matter of experience; and what we experience is the same, whether we adopt one opinion, or another, with regard to the nature of that which thinks. It is in what we experience, all ascertained, and put into the best possible shape for ease of comprehension, and ready application to practice, that all useful knowledge on this, as on all other subjects, consists.

1. First, we are to consider the circumstances of the body which have an effect upon the mental sequences. The object is, to ascertain which have a tendency to introduce those sequences which are favourable, which to introduce those that are unfavourable, to human happiness, and how to turn this knowledge to account.

Health and sickness, or the states of body which those names most peculiarly express, are the first of the circumstances which we have enumerated under this head. That these states have a tendency to introduce very different trains of thought, is matter of vulgar experience; but very little has been done to examine such trains, and to ascertain what in each is favourable, and what is unfavourable to human happiness.

We have already seen, that the trains which are favourable to Intelligence, Temperance, Justice, and Generosity, are the trains favourable to human happiness. Now, with respect to Intelligence, it will be seen, that Health is partly favourable, and partly unfavourable; and the same is the case with Sickness. Health is favorable, by allowing that time to be given to study, which many kinds of sickness withdraw, and by admitting a more vigorous attention, which the pain and languor of sickness often impair. It is unfavourable, by introducing that flow of pleasurable ideas which is

called high spirits, adverse at a certain pitch to the application of attention; and by leading to that passionate pursuit of pleasure, which diminishes, if it does not destroy, the time for study. The mode in which disease operates upon the mental sequences is a subject of great complexity, and in which little has yet been done to mark distinctly the events, and ascertain the order of their succession. Cabanis, in his seventh memoir, entitled, *De l'Influence des Maladies sur la Formation des Idées et des Affections Morales*, has made a useful beginning toward the elucidation of this subject; but here, as elsewhere, he is too often general and vague. Instruction may also be gleaned from Darwin; but the facts which bear upon this point rather drop from him incidentally, than are anywhere put together systematically for its elucidation. As they were both physicians, however, of great experience, and of unusual skill in the observation of mental phenomena, their opinions are entitled to the greatest respect. The result of the matter is, that an improved medicine is no trifling branch of the art and science of education. Cabanis, accordingly concludes his memoir with the two following propositions:

"1mo. L'état de maladie influe d'une manière directe sur la formation des idées et des affections morales: nous avons même pu montrer dans quelques observations particulieres, comment cette influence s'exerce.

"2do. L'observation et l'experience nous ayant fait decouvrir les moyens de combattre assez souvent avec succés l'état de maladie, l'art qui met en usage ces moyens, peut donc modifier et perfectionner les operations de l'intelligence et les habitudes de la volonté."

As it is chiefly through the nervous system, and the centre of that system, the brain, that the mental sequences are affected, and as all the sensitive parts have not an action equally strong, nor equally direct, upon the nerves and brain, diseases affect the mental sequences differently, according to the parts which they invade. The system of the nerves and brain is itself subject to different states of disease. Classified with regard to the functions which that system performs, as the organ of sensibility and of action, these states are thus described by M. Cabanis; "1. Excess of sensibility to all impressions on the one part; excessive action on the organs of motion on the other. 2. Unfitness to receive impressions, in sufficient number, or with the due degree of energy; and a diminution of the activity necessary for the production of the motions. 3. A general disturbance of the functions of the system, without any remarkable appearance of either excess or defect. 4. A bad distribution of the cerebral virtue, either when it exerts itself unequally in regard to time, having fits of extraordinary activity, followed by others of considerable remission; or when it is supplied in wrong proportion to the different organs, of which some are to a great degree abandoned, while there appears in others a concentration of sensibility, and of the excitations or powers by which the movements are affected."

The effects upon the mental sequences are represented in the following general sketch, which has the advantage of being tolerably comprehensive, though it is unhappily both vague and confused: "We may lay it down as a general fact, that, in all the marked affections of the nerves, irregularities, less or greater, take place, relative both to the mode in which impressions are received, and to the mode in which the

determinations, automatic or voluntary, are formed. On one part, the sensations vary incessantly and rapidly with respect to their vivacity, their energy, and even their number; on another, the strength, the readiness, the facility of action exhibit the greatest inequalities. Hence perpetual fluctuation, from great excitement to langour, from elevation to dejection; a temper and passions variable in the highest degree. In this condition, the mind is always easily pushed to extremes. Either the man has many ideas, with great mental activity and acuteness; or, he is, on the contrary, almost incapable of thinking. It has been well observed, that hypochondriacal persons are by turns both courageous and cowardly; and as the impressions are habitually faulty either by excess or defect, in regard to almost all objects, it is seldom that the images correspond to the reality of things; that the desires and the will obtain the proper force and direction. If, along with these irregularities, which arise from the nervous system, should be found a weakness of the muscular organs, or of some important viscus, as, for example, of the stomach,—the phenomena, though still analogous in the main, will be distinguished by remarkable peculiarities. During the interval of languor, the debility of the muscles renders the sense of weakness, the fainting and drooping, still more complete and oppressive; life appears ready to escape at every instant. The passions are gloomy, excited by trifles, selfish; the ideas are petty, narrow, and bear only upon the objects of the slightest sensations. At the times of excitation, which arrive the more suddenly the greater the weakness; the muscular determinations do not obey the impulses of the brain, unless by starts, which have neither energy nor duration. These impulses serve only to convince the patient more profoundly of his real imbecility; they give him only a feeling of impatience, of discontent, and anxiety. Desires, often sufficiently keen, but commonly repressed by the habitual feeling of weakness, still more increase the discouraging impression. As the peculiar organ of thought cannot act without the concurrence of several others, and as, at that moment, it partakes in some degree of the weakness which affects the organs of movement, the ideas present themselves in crowds; they spring up, but do not arrange themselves in order; the necessary attention is not enjoyed; the consequence is, that this activity of the imagination, which we might expect to afford some compensation for the absence of other faculties, becomes a new source of dejection and despair."

In this passage, the mental sequences which particular states of disease introduce are clearly shown to have a prodigious influence upon human happiness; but the effects which are produced in respect to intelligence, temperance, generosity and justice, are mixed up together; and the author rather shows how much this subject deserves to be studied, than gives us information from which any considerable degree of practical utility can be derived. The connection between particular states of body, and particular mental trains, ought to be carefully watched and recorded. When the events, one by one, are accurately distinguished, and made easy to be recognized, and when the order in which they follow one another is known, our power over the trains of those events, power to prevent such as are unfavourable, to produce such as are favourable, to human happiness, will then be at its height; and how to take care of his health will be one of the leading parts of the moral and intellectual education of man.

The state of the body, with regard to health and disease, is the inherent circumstance of the greatest importance, and we must pass over the rest with a cursory notice. The next we mentioned, are, Strength and Weakness, meaning chiefly muscular strength

and weakness; and the natural, habitual, not the accidental, or diseased, state. It is a common observation, that muscular strength is apt to withdraw the owner from mental pursuits, and engage him in such as are more of the animal kind; the acquisition and display of physical powers. Few men of great bodily powers have been much distinguished for mental excellence; some of the greatest ornaments of human nature have been remarkable for bodily weakness. Muscular strength is liable to operate unfavourably upon the moral as well as the intellectual trains of thought. It diminishes that respect for other men, which is so necessary to resist the impulses of passion; it presents innumerable occasions for playing the tyrant with impunity; and fosters, therefore, all that train of ideas, in which the tyrannical vices are engendered. Cabanis remarks, and the fact is worthy of the greatest attention,—"Presque tous les grands scélérats sont des hommes d'une structure organique vigoureuse, remarquables par la fermeté et la tenacité de leurs fibres musculaires." It is evident, therefore, how deeply it concerns the happiness of mankind, that the mental trains, which this circumstance has a tendency to raise, should be accurately known, as thus alone the means can be known, how that which is hurtful may be avoided, that which is useful be introduced.

Of beauty and deformity, as circumstances affecting the mental trains, much will not be necessary to be said. Illustrations will occur to every body, to prove, that their power is not inconsiderable; so little, however, has been done to ascertain the facts, and record them in the best possible order, that any thing which deserves the name of knowledge on the subject hardly exists; and the principal service we can render is to point it out for study; to exhort future inquirers to observe diligently the trains which flow from beauty and deformity as their source, and to trace to the largest possible sequences, as above described, the connections which take place between them. Beauty and deformity, it may be observed, operate upon the mental trains in somewhat a different way from health and disease; rather mediately than immediately. It is the idea of their effect upon other people that is the more immediate cause of the trains to which they give occasion. The idea that beauty commands their favourable regards, is apt to introduce the well known trains, denoted by the terms, vanity, pride, contemptuousness, trains not very favourable to the virtues. The idea that deformity is apt to excite their unfavourable regards, is often observed to lead to acuteness and vigour of intellect, employed as instruments of protection, but to moroseness, and even malignity of temper. The mode, however, in which beauty and deformity operate upon the mental trains, namely, through the idea of their effect upon other people, is common to them with a great many other advantages or disadvantages, which derive their value chiefly from their influence upon other people; and materials for the illustration of this subject have been supplied by various writers upon the human mind.

To the word Temperament, no very precise idea has hitherto been annexed. It may be conceived in the following manner: The bodily structure, the composition of elements in the body of every individual, is different from that in the body of any other. It is observed, however, that the composition is more nearly resembling in some, than in others; that those who thus resemble may be arranged in groups; and that they may all be comprehended in four or five great classes. The circumstances, in which their bodily composition agrees, so as to constitute one of those large classes, have been

called the Temperament; and each of those more remarkable characters of the body has been observed to be attended with a peculiar character in the train of ideas. But the illustration of the trains of ideas, and hence of the qualities of mind, which are apt to be introduced by temperament, and by the diversities of age and of sex, we are obliged, by the rapid absorption of the space allotted us wholly to omit. The subject in itself is not very mysterious. Accurate observation, and masterly recordation alone are required. To be sure, the same may be said of every object of human inquiry. But in some cases, it is not so easy to conceive perfectly what observation and recordation mean. On these topics, also, we are happy to say, that Cabanis really affords very considerable helps.

2. We come now to the second sort of physical circumstances, which have the power of introducing habitually certain trains of ideas, and hence of impressing permanent tendencies on the mind,—the circumstances which are external to the body. Some of these are of very great importance. The first is Aliment.

Aliment is good or evil, by quality and quantity. Hartley has remarked long ago, that though all the impressions from which ideas are copied, are made on the extremities of the nerves which are ramified on the surface of the body, and supply the several organs of sense, other impressions are nevertheless made on the extremities of the nerves which are ramified on the internal parts of our bodies, and that many of those impressions are associated with trains of ideas; that the impressions made upon the extremities of the nerves which are ramified on the alimentary canal, are associated with the greatest number of those trains; and of such trains, that some are favourable to happiness, some altogether the reverse. If the quantity and quality of the aliment be the principal cause of those impressions, here is a physiological reason, of the greatest importance, for an accurate observation and recordation of the events occurring in this part of the field; what antecedents are attended by what consequents, and what the largest sequences that can be traced. Cabanis confirmed the doctrine of Hartley with regard to the internal impressions, and added another class. He said that not only the extremities of the nerves which terminate internally, but the centre of the nervous influence, the brain itself, received impressions, and that thus there were no fewer than three sources of mental and corporeal movements of man; one external, from which almost all our distinct ideas are copied; and two internal, which exert a very great influence upon the trains of ideas, and hence upon the actions of which these trains are the antecedents or cause

On this too, as on most of the other topics, belonging to the physical branch of education, we must note, as still uncollected, the knowledge which is required. It is understood in a general way, that deep impressions are by this means made upon the mind; but how they are made, is a knowledge which, in any such detail and accuracy as to afford useful practical rules, is nearly wanting. There is a passage in Hartley, which we esteem it important to quote: "The sense of feeling may be distinguished into that of the external surface of the body, and that of the cavities of the nose, mouth, fauces, alimentary duct, pelvis, of the kidneys, uterus, bladder of urine, gall bladder, follicles, and ducts of the glands, &c. The sensibility is much greater in the last than in the first, because the impressions can more easily penetrate through the soft epithelium with which the internal cavities are invested. In the mouth and nose

this sensibility is so great, and attended with such distinguishing circumstances, as to have the names of taste and smell assigned respectively to the sensations impressed upon the papillæ of these two organs."......"The taste may also be distinguished into two kinds; viz. the general one which extends itself to the insides of the lips and cheeks, to the palate, fauces, æsophagus, stomach, and whole alimentary duct, quite down to the anus . . . . . The pleasures of the taste, considered as extending itself from the mouth through the whole alimentary duct, are very considerable, and frequently repeated; they must, therefore, be one chief means by which pleasurable states are introduced into the brain and nervous system. These pleasurable states must, after some time, leave miniatures of themselves, sufficiently strong to be called up upon slight occasions, viz. from a variety of associations with the common visible and audible objects, and to illuminate these and their ideas. When groups of these miniatures have been long and closely connected with particular objects, they coalesce into one complex idea, appearing, however, to be a simple one; and so begin to be transferred upon other objects, and even upon tastes back again, and so on without limits. And from this way of reasoning it may now appear, that a great part of our intellectual pleasures are ultimately deducible from those of taste; and that one principal final cause of the greatness and constant recurrency of these pleasures, from our first infancy to the extremity of old age, is to introduce and keep up pleasurable states in the brain, and to connect them with foreign objects. The social pleasures seem, in a particular manner, to be derived from this source, since it has been customary in all ages and nations, and is in a manner necessary, that we should enjoy the pleasures of taste in conjunction with our relations, friends, and neighbours. In like manner, nauseous tastes and painful impressions upon the alimentary duct give rise and strength to mental pains. The most common of these painful impressions is that from excess, and the consequent indigestion. This excites and supports those uneasy states, which attend upon melancholy, fear, and sorrow. It appears also to me, that these states are introduced in a great degree during sleep, during the frightful dreams, agitations, and oppressions, that excess in diet occasions in the night. These dreams and disorders are often forgotten; but the uneasy states of body which then happen, leave vestiges of themselves, which increase in number and strength every day from the continuance of the cause, till at last they are ready to be called up in crowds upon slight occasions, and the unhappy person is unexpectedly, and at once, as it were, seized with a great degree of the hypochondriac distemper, the obvious cause appearing no ways proportionable to the effect. And thus it may appear that there ought to be a great reciprocal influence between the mind and alimentary duct, agreeably to common observation." Cabanis, in like manner, says, "Quoique les medecins aient dit plusieurs choses hazardées, touchant l'effet des substances alimentaires sur les organs de la pensée, ou sur les principes physiques de nos penchans, il n'en est pas moins certain que les differentes causes que nous appliquons journellement à nos corps, pour en renouveller les mouvements, agissent avec une grande efficacité sur nos dispositions morales. On se rend plus propre aux travaux de l'esprit par certaines precautions de régime, par l'usage, ou la suppression de certains alimens. Quelques personnes out été guéries de violens accés de colere, auxquels elles etoient sujêtes, par la seule diète pythagorique, et dans le cas même ou des délires furieux troublent toutes les facultés de l'ame, l'emploi journalier de certaines nourritures ôu de certaines boissons, l'impression d'une certaine temperature de l'air,

l'aspect de certaines objets; en un mot, un systéme diététique particulier suffit souvent pour y remener le calme, pour faire tout rentrer dans l'ordre primitif."

As it is impossible for us here to attempt a full account of the mode in which aliments operate to produce good or bad effects upon the train of ideas, we shall single out that case, which, as operating upon the greatest number of people, is of the greatest importance; we mean that, in which effects are produced by the *poverty* of the diet; proposing, under the term poverty, to include both badness of quality, and defect of quantity. On badness of quality, we shall not spend many words. Aliments are bad in a variety of ways, and to such a degree as to impair the bodily health. Of such, the injurious effect will not be disputed. Others, which have in them no hurtful ingredient, may contain so insignificant a portion of nourishment, that to afford it in the requisite degree, they must produce a hurtful distention of the organs. The saw-dust, which some northern nations use for bread, if depended upon for the whole of their nourishment, would doubtless have this effect. The potatoe, where solely depended upon, is not, perhaps, altogether free from it. Bad quality, however, is but seldom resorted to, except in consequence of deficient quantity. That is, therefore, the principal point of inquiry.

It is easy to see a great number of ways in which deficient quantity of food operates unfavourably upon the moral temper of the mind. As people are ready to sacrifice every thing to the obtaining of a sufficient quantity of food, the want of it implies the most dreadful poverty; that state, in which there is scarcely any source of pleasure, and in which almost every moment is subject to pain. It is found by a very general experience, that a human being, almost constantly in pain, hardly visited by a single pleasure, and almost shut out from hope, loses by degrees all sympathy with his fellow creatures; contracts even a jealousy of their pleasures, and at last a hatred; and would like to see all the rest of mankind as wretched as himself. If he is habitually wretched, and rarely permitted to taste a pleasure, he snatches it with an avidity, and indulges himself with an intemperance, almost unknown to any other man. The evil of insufficient food acts with an influence not less malignant upon the intellectual, than upon the moral part of the human mind. The physiologists account for its influence in this manner. They say, that the signs, by which the living energy is manifested, may be included generally under the term *irritability*, or the power of being put in action by stimulants. It is not necessary for us to be very particular in explaining these terms; a general conception will for the present suffice. A certain degree of this irritability seems necessary to the proper state, or rather the very existence of the animal functions. A succession of stimulants, of a certain degree of frequency and strength, is necessary to preserve that irritability. The most important by far of all the useful stimulants applied to the living organs is food. If this stimulant is applied, in less than a sufficient degree, the irritability is diminished in proportion, and all those manifestations of the living energy which depend upon it, mental as well as corporeal, are impaired; the mind loses a corresponding part of its force. We must refer to the philosophical writers on medicine for illustrations and facts, which we have not room to adduce, but which will not be difficult to collect. Dr. Crichton places poor diet at the head of a list of causes which "weaken attention, and consequently debilitate the whole faculties of the mind."\* From this fact, about which there is no dispute, the most important consequences arise. It follows, that when we deliberate about the

means of introducing intellectual and moral excellence, into the minds of the principal portion of the people, one of the first things which we are bound to provide for, is, a generous and animating diet. The physical causes must go along with the moral; and nature herself forbids, that you shall make a wise and virtuous people, out of a starving one. Men must be happy themselves, before they can rejoice in the happiness of others; they must have a certain vigour of mind, before they can, in the midst of habitual suffering, resist a presented pleasure; their own lives, and means of wellbeing, must be worth something, before they can value, so as to respect, the life, or well-being, of any other person. This or that individual may be an extraordinary individual, and exhibit mental excellence in the midst of wretchedness; but a wretched and excellent people never yet has been seen on the face of the earth. Though far from fond of paradoxical expressions, we are tempted to say, that a good diet is a necessary part of a good education; for in one very important sense it is emphatically true. In the great body of the people all education is impotent without it.

Labour is the next of the circumstances in our enumeration. We have distinguished labour from action, though action is the genus of which labour is one of the species; because of those species, labour is so much the most important. The muscular operations of the body, by which men generally earn their bread, are the chief part of the particulars which we include under that term. The same distinction is useful here as in the former case; labour is apt to be injurious by its *quality*, and by its *quantity*. That the quality of the labour, in which a man is employed, produces effects, favourable or unfavourable upon his mind, has long been confessed; Dr. Smith made the important remark, that the labour in which the great body of the people are employed, has a tendency to grow less and less favourable, as civilization and the arts proceed. The division and subdivision of labour is the principal cause. This confines the attention of the labourer to so small a number of objects, and so narrow a circle of ideas, that the mind receives not that varied exercise, and that portion of aliment, on which almost every degree of mental excellence depends. When the greater part of a man's life is employed in the performance of a few simple operations, in one fixed invariable course, all exercise of ingenuity, all adaptation of means to ends, is wholly excluded, and the faculty lost, as far as disuse can destroy the faculties of the mind. The minds, therefore, of the great body of the people are in danger of really degenerating, while the other elements of civilization are advancing, unless care is taken, by means of the other instruments of education, to counteract those effects which the simplification of the manual processes has a tendency to produce.

The *quantity* of labour is another circumstance which deserves attention in estimating the agents which concur in forming the mind. Labour may be to such a degree severe, as to confine the attention almost wholly to the painful ideas which it brings; and to operate upon the mind with nearly the same effects as an habitual deficiency of food. It operates perhaps still more rapidly; obliterating sympathy, inspiring cruelty and intemperance, rendering impossible the reception of ideas, and paralyzing the organs of the mind. The attentive examination, therefore, of the facts of this case, is a matter of first-rate importance. Two things are absolutely certain; that without the bodily labour of the great bulk of mankind the well-being of the species cannot be obtained; and that if the bodily labour of the great bulk of mankind is carried beyond a certain extent, neither intellect, virtue, nor happiness can flourish upon the earth. What, then,

is that precious middle point, at which the greatest quantity of good is obtained with the smallest quantity of evil, is, in this part of the subject, the problem to be solved.

The state of defective food and excessive labour, is the state in which we find the great bulk of mankind; the state in which they are either constantly existing, or into which they are every moment threatening to fall. These are two, therefore, in settling the rank among the circumstances which concur in determining the degree of intellect and morality capable of being exhibited in the societies of men, which ought to stand in a very eminent place: the mode of increasing to the utmost, the quantity of intellect, morality, and happiness, in human society, will be very imperfectly understood, till they obtain a new degree of consideration.

We named, besides these, among the physical circumstances which contribute to give permanent characters to the mind, air, temperature, action, and rest. But of these we must leave the illustration wholly to other inquirers. It is mortifying to be obliged to relinquish a subject, on which so much depends, and for which so little has been done, with so very imperfect an attempt for its improvement. We shall, however, have performed a service of some utility to education, if what we have said has any tendency to lead men to a juster estimate of the physical circumstances which concur in fashioning the human mind, and hence to greater industry and care in studying and applying them.

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# Circumstances Of The Moral Kind Which Operate Upon The Mind In The Way Of Education.

The Moral circumstances which determine the mental trains of the human being, and hence the character of his actions, are of so much importance, that to them the term education has been generally confined: or rather, the term education has been generally used in so narrow a sense, that it embraces only one of the four classes into which we have thought it convenient to distribute the moral circumstances which operate to the formation of the human mind.

1. The first of these classes we have comprehended under the term Domestic Education. To this the groundwork of the character of most individuals is almost wholly to be traced. The original features are fabricated here; not, indeed, in such a manner as to be unsusceptible of alteration, but in such a manner, decidedly, as to present a good or bad subject for all future means of cultivation. The importance, therefore, of domestic education, needs no additional words to explain it; though it is difficult to restrain a sigh, when we reflect, that it has but now begun to be regarded as within the pale of education; and a few scattered remarks, rather than a full exposition of the subject, is all the information upon it, with which the world has been favoured

By Domestic Education, we denote all that the child hears and sees, more especially all that it is made to suffer or enjoy at the hands of others, and all that it is allowed or constrained to do, in the house in which it is born and bred, which we shall consider, generally, as the parental.

If we consider, that the mental trains, as explained above, are that upon which every thing depends, and that the mental trains depend essentially upon those sequences among our sensations which have been so frequently experienced as to create a habit of passing from the idea of the one to that of the other, we shall perceive immediately the reasons of what we have advanced.

It seems to be a law of human nature, that the first sensations experienced produce the greatest effects; more especially, that the earliest repetitions of one sensation after another produce the deepest habit; the strongest propensity to pass immediately from the idea of the one to the idea of the other. Common language confirms this law, when it speaks of the susceptibility of the tender mind. On this depends the power of those associations which form some of the most interesting phenomena of human life. From what other cause does it arise, that the hearing of a musical air, which, after a life of absence, recalls the parental mansion, produces as it were a revolution in the whole being? That the sympathies between brothers and sisters are what they are? On what other cause originally is the love of country founded?—that passionate attachment to the soil, the people, the manners, the woods, the rivers, the hills, with which our infant eyes were familiar, which fed our youthful imaginations, and with the presence of which the pleasures of our early years were habitually conjoined!

It is, then, a fact, that the early sequences to which we are accustomed form the primary habits; and that the primary habits are the fundamental character of the man. The consequence is most important; for it follows, that, as soon as the infant, or rather the embryo, begins to feel, the character begins to be formed; and that the habits, which are then contracted, are the most pervading and operative of all. Education, then, or the care of forming the habits, ought to commence, as much as possible, with the period of sensation itself; and, at no period, is its utmost vigilance of greater importance, than the first.

Very unconnected, or very general instructions, are all that can be given upon this subject, till the proper decompositions and recompositions are performed; in other words, till the subject is first analyzed, and then systemized; or, in one word, *philosophized*, if we may use that verb in a passive signification. We can, therefore, do little more than exhort to the prosecution of the inquiry.

The steady conception of the End must guide us to the Means. Happiness is the end; and we have circumscribed the inquiry, by naming Intelligence, Temperance, and Benevolence, of which last the two parts are Generosity and Justice, as the grand qualities of mind, through which this end is to be attained. The question, then, is, how can those early sequences be made to take place on which the habits, conducive to intelligence, temperance, and benevolence, are founded; and how can those sequences, on which are founded the vices opposite to those virtues, be prevented?

Clearness is attained, by disentangling complexity; we ought, therefore, to trace the sequences conducive to each of those qualities in their turn. A part, however, must suffice when we cannot accomplish the whole. Intelligent trains of ideas constitute intelligence. Trains of ideas are intelligent, when the sequences in the ideas correspond to the sequences in nature. A man, for example, knows the order of certain words, when his idea of the one follows that of the other, in the same order in which the events themselves took place. A man is sagacious in devising means for the production of events when his ideas run easily in trains which are at once agreeable to knowledge, that is, to the trains of events, and at the same time new in the combination. They must be agreeable to knowledge; that is, one of the ideas must follow another in the order in which the objects of which they are the ideas follow one another in nature, otherwise the train would consist of mere chimeras, and, having no connection with things, would be utterly useless. As the event, however, is not in the ordinary course; otherwise sagacity would not be required to give it existence; the ordinary train of antecedents will not suffice; it must be a peculiar train, at once correspondent with nature, and adapted to the end. The earliest trains, produced in the minds of children, should be made to partake as much as possible of those characters. The impressions made upon them should correspond to the great and commanding sequences established among the events on which human happiness principally depends. More explicitly, children ought to be made to see, and hear, and feel, and taste, in the order of the most invariable and comprehensive sequences, in order that the ideas which correspond to their impressions, and follow the same order of succession, may be an exact transcript of nature, and always lead to just anticipations of events. Especially, the pains and pleasures of the infant, the deepest impressions which he receives, ought, from the first moment of sensation, to be made as much as

possible to correspond to the real order of nature. The moral procedure of parents is directly the reverse; they strive to defeat the order of nature, in accumulating pleasures for their children, and preventing the arrival of pains, when the children's own conduct would have had very different effects.

Not only are the impressions, from which ideas are copied, made, by the injudicious conduct of those to whom the destiny of infants is confided, to follow an order very different from the natural one, or that in which the grand sequences among events would naturally produce them; but wrong trains of ideas, trains which have no correspondence with the order of events, are often introduced immediately by words, or other signs of the ideas of other men. As we can only give very partial examples of a general error, we may content ourselves with one of the most common. When those who are about children express by their words, or indicate by other signs, that terrific trains of ideas are passing in their minds, when they go into the dark; terrific trains, which have nothing to do with the order of events, come up also in the minds of the children in the dark, and often exercise over them an uncontrollable sway during the whole of their lives.—This is the grand source of wrong education; to this may be traced the greater proportion of all the evil biases of the human mind.—If an order of ideas, corresponding with the order of events, were taught to come up in the minds of children when they go into the dark, they would think of nothing but the real dangers which are apt to attend it, and the precautions which are proper to be taken; they would have no wrong feelings, and their conduct would be nothing but that which prudence, or a right conception of the events, would prescribe.—If the expressions, and other signs of the ideas of those who are about children, indicate that trains, accompanied with desire and admiration, pass in their minds when the rich and powerful are named, trains accompanied with aversion and contempt when the weak and the poor, the foundation is laid of a character stained with servility to those above, and tyranny to those below them. If indication is given to children that ideas of disgust, of hatred, and detestation, are passing in the minds of those about them, when particular descriptions of men are thought of; as men of different religions, different countries, or different political parties in the same country; a similar train becomes habitual in the minds of the children; and those antipathies are generated which infuse so much of its bitterness into the cup of human life.

We can afford to say but very few words on the powers of domestic education with regard to Temperance. That virtue bears a reference to pain and pleasure. The grand object evidently is, to connect with each pain and pleasure those trains of ideas which, according to the order established among events, tend most effectually to increase the sum of pleasures upon the whole, and diminish that of pains. If the early trains create a habit of over-valuing any pleasure or pain, too much will be sacrificed, during life, to obtain the one, or avoid the other, and the sum of happiness, upon the whole, will be impaired. The order in which children receive their impressions, as well as the order of the trains which they copy from others, has a tendency to create impatience under privation; in other words, to make them in prodigious haste to realize a pleasure as soon as desired, to extinguish a pain as soon as felt. A pleasure, however, can be realized in the best possible manner, or a pain removed, only by certain steps,—frequently numerous ones; and if impatience hurries a man to overlook those steps, he may sacrifice more than he gains. The desirable thing would be, that his

ideas should always run over those very steps, and none but them; and the skilful use of the powers we have over the impressions and trains of his infancy would lay the strongest foundation for the future happiness of himself, and of all those over whom his actions have any sway. It is by the use of this power that almost every thing is done to create what is called the temper of the individual; to render him irascible on the one hand, or forbearing on the other; severe and unforgiving, or indulgent and placable.

Intelligence and Temperance are sometimes spoken of, as virtues which have a reference to the happiness of the individual himself: Benevolence as a virtue which has a reference to the happiness of others. The truth is, that intelligence and temperance have a reference not less direct to the happiness of others than to that of the possessor; and Benevolence cannot be considered as less essential to his happiness than intelligence and temperance. In reality, as the happiness of the individual is bound up with that of his species, that which affects the happiness of the one, must also, in general, affect that of the other.

It is not difficult, from the expositions we have already given, to conceive in a general way how sequences may take place in the mind of the infant which are favourable to benevolence, and how sequences may take place which are unfavourable to it. The difficulty is, so to bring forward and exhibit the details, as to afford the best possible instruction for practice. We have several books now in our own language, in particular those of Miss Edgeworth, which afford many finely selected instances, and many detached observations of the greatest value, for the cultivation of benevolence in the infant mind. But the great task of the philosopher, that of *theorizing* the whole, is yet to be performed. What we mean by "theorizing the whole," after the explanations we have already afforded, is not, we should hope, obscure. It is, to observe exactly the facts; to make a perfect collection of them, nothing omitted that is of any importance, nothing included of none; and to record them in that order and form, in which all that is best to be done in practice can be most immediately and certainly perceived.

The order of the impressions which are made upon the child, by the spontaneous order of events, is, to a certain degree, favourable to benevolence. The pleasures of those who are about him are most commonly the cause of pleasure to himself; their pains of pain. When highly pleased, they are commonly more disposed to exert themselves to gratify him. A period of pain or grief in those about him, is a period of gloom—a period in which little is done for pleasure—a period in which the pleasures of the child are apt to be overlooked. Trains of pleasurable ideas are thus apt to arise in his mind, at the thought of the pleasurable condition of those around him; trains of painful ideas at the thought of the reverse; and he is thus led to have an habitual desire for the one, aversion to the other. But if pleasures, whencesoever derived, of those about him, are apt to be the cause of good to himself, those pleasures which they derive from himself, are in a greater degree the cause of good to himself. If those about him are disposed to exert themselves to please him when they are pleased themselves, they are disposed to exert themselves in a much greater degree to please him, in particular, when it is he who is the cause of the pleasure they enjoy. A train of ideas, in the highest degree pleasurable, may thus habitually pass through his mind at

the thought of happiness to others produced by himself; a train of ideas, in the highest degree painful, at the thought of misery to others produced by himself. In this manner the foundation of a life of beneficence is laid.

The business of a skilful education is, so to arrange the circumstances by which the child is surrounded, that the impressions made upon him shall be in the order most conducive to this happy result. The impressions, too, which are made originally upon the child, are but one of the causes of the trains which are rendered habitual to him, and which, therefore, obtain a leading influence in his mind. When he is often made to conceive the trains of other men, by the words, or other signs by which their feelings are betokened, those borrowed trains become also habitual, and exert a similar influence on the mind. This, then, is another of the instruments of education. When the trains, signified to the child, of the ideas in the minds of those about him are trains of pleasure at the thought of the happiness of other human beings, trains of the opposite kind at the conception of their misery; and when such trains are still more pleasurable or painful as the happiness or misery is produced by themselves, the association becomes in time sufficiently powerful to govern the life.

The grand object of human desire is a command over the wills of other men. This may be attained, either by qualities and acts which excite their love and admiration, or by those which excite their terror. When the education is so wisely conducted as to make the train run habitually from the conception of the good end to the conception of the good means; and as often, too, as the good means are conceived, viz. the useful and beneficial qualities, to make the train run on to the conception of the great reward, the command over the wills of men; an association is formed which impels the man through life to pursue the great object of desire, by fitting himself to be, and by actually becoming, the instrument of the greatest possible benefit to his fellow men.

But, unhappily, a command over the wills of men may be obtained by other means than by doing them good; and these, when a man can command them, are the shortest, the easiest, and the most effectual. These other means are all summed up in a command over the pains of other men. When a command over the wills of other men is pursued by the instrumentality of pain, it leads to all the several degrees of vexation, injustice, cruelty, oppression, and tyranny. It is, in truth, the grand source of all wickedness, of all the evil which man brings upon man. When the education is so deplorably bad as to allow an association to be formed in the mind of the child between the grand object of desire, the command over the wills of other men, and the fears and pains of other men, as the means; the foundation is laid of the bad character,—the bad son, the bad brother, the bad husband, the bad father, the bad neighbour, the bad magistrate, the bad citizen,—to sum up all in one word, the bad man. Yet, true, it is, a great part of education is still so conducted as to form that association. The child, while it yet hangs at the breast, is often allowed to find out by experience, that crying, and the annoyance which it gives, is that by which chiefly it can command the services of its nurse, and obtain the pleasures which it desires. There is not one child in fifty, who has not learned to make its cries and wailings an instrument of power; very often they are an instrument of absolute tyranny. When the evil grows to excess, the vulgar say the child is spoiled. Not only is the child allowed to exert an influence over the wills of others, by means of their pains; it finds, that

frequently, sometimes most frequently, its own will is needlessly and unduly commanded by the same means, pain, and the fear of pain. All these sensations concur in establishing a firm association between the idea of the grand object of desire, command over the acts of other men, and the idea of pain and terror, as the means of acquiring it. That those who have been subject to tyranny, are almost always desirous of being tyrants in their turn; that is to say, that a strong association has been formed in their minds, between the ideas of pleasure and dignity, on the one hand, and those of the exercise of tyranny, on the other, is a matter of old and invariable observation. An anecdote has just been mentioned to us, so much in point, that we will repeat it, as resting on its own probability, though it is hearsay evidence (very good, however, of its kind) on which we have received it. At Eton, in consequence, it is probable, of the criticisms which the press has usefully made upon the system of fagging (as it is called), at the public schools, a proposition was lately made, among the boys themselves, for abolishing it. The idea originated with the elder boys, who were in possession of the power; a power of a very unlimited and formidable description; and by them was warmly supported. It was, however, opposed with still greater vehemence by the junior boys, the boys who were then the victims of it. The expected pleasure of tyrannizing in their turn, outweighed the pain of their present slavery. In this case, too, as in most others, the sources of those trains which govern us are two—the impressions made upon ourselves, and the trains which we copy from others. Besides the impressions just recounted, if the trains which pass in the minds of those by whom the child is surrounded, and which he is made to conceive by means of their words, and other signs, lead constantly from the idea of command over the wills of other men, as the grand object of desire, to the ideas of pain and terror as the means, the repetition of the copied trains increases the effect of the native impressions, and establishes and confirms the maleficent character. These are the few things we can afford to adduce upon the subject of Domestic Education.

2. In the next place comes that which we have denominated Technical Education. To this the term Education has been commonly confined; or, rather, the word Education has been used in a sense so unhappily restricted, that it has extended only to a part of that which we call Technical Education. It has not extended to all the arts, but only to those which have been denominated liberal.

The question here occurs—What is the sort of education required for the different classes of society, and what should be the difference in the training provided for each? Before we can treat explicitly of technical education, we must endeavour to show, in what manner, at least, this question ought to be resolved.

There are certain qualities, the possession of which is desirable in all classes. There are certain qualities, the possession of which is desirable in some, not in others. As far as those qualities extend which ought to be common to all, there ought to be a correspondent training for all. It is only in respect to those qualities which are not desirable in all, that a difference in the mode of training is required.

What then are the qualities, the possession of which is desirable in all? They are the qualities which we have already named as chiefly subservient to the happiness of the individual himself, and of other men; Intelligence, Temperance, and Benevolence. It

is very evident that these qualities are desirable in all men; and if it were possible to get them all in the highest possible degree in all men, so much the more would human nature be exalted.

The chief difficulty respects Intelligence; for it will be readily allowed, that almost equal care ought to be taken, in all classes, of the trains leading to the settled dispositions which the terms Temperance and Benevolence denote. Benevolence, as we have above described it, can hardly be said to be of more importance to the happiness of man in one class than in another. If we bear in mind, also, the radical meaning of Temperance, that it is the steady habit of resisting a present desire, for the sake of a greater good, we shall readily grant, that it is not less necessary to happiness in one rank of life than in another. It is only necessary to see, that temperance, though always the same disposition, is not always exerted on the same objects, in the different conditions of life. It is no demand of temperance, in the man who can afford it, to deny himself animal food; it may be an act of temperance in the man whose harder circumstances require that he should limit himself to coarser fare. It is also true, that the trains which lead to Temperance and Benevolence may be equally cultivated in all classes. The impressions which persons are made to receive, and the trains of others which they are made to copy, may, with equal certainty, be guided to the generating of those two qualities in all the different classes of society. We deem it unnecessary, (here indeed, it is impossible) to enter into the details of what may be done in the course of technical education, to generate, or to confirm, the dispositions of Temperance and Benevolence. It can be nothing more than the application of the principles which we developed, when we endeavoured to show in what manner the circumstances of domestic education might be employed for generating the trains on which these mental qualities depend.

Technical Education, we shall then consider, as having chiefly to do with *Intelligence*.

The first question, as we have said before, respects what is desirable for all,—the second, what is desirable for each of the several classes. Till recently, it was denied, that intelligence was a desirable quality in the great body of the people; and as intelligence is power, such is an unavoidable opinion in the breasts of those who think that the human race ought to consist of two classes,—one that of the oppressors, another that of the oppressed. The concern which is now felt for the education of the working classes, shows that we have made a great step in knowledge, and in that genuine morality which ever attends it.

The analysis of the ideas decides the whole matter at once. If education be to communicate the art of happiness; and if intelligence consists of two parts, a knowledge of the order of those events of nature on which our pleasures and pains depend, and the sagacity which discovers the best means for the attaining of ends; the question, whether the people should be educated, is the same with the question, whether they should be happy or miserable. The question, whether they should have more or less of intelligence, is merely the question, whether they should have more or less of misery, when happiness might be given in its stead. It has been urged that men are, by daily experience, evinced not to be happy, not to be moral, in proportion to their knowledge. It is a shallow objection. Long ago it was observed by Hume, that

knowledge and its accompaniments, morality and happiness, may not be strictly conjoined in every individual, but that they are infallibly so in every age, and in every country. The reason is plain; a natural cause may be hindered of its operation in one particular instance, though in a great variety of instances it is sure to prevail. Besides, there may be a good deal of knowledge in an individual, but not knowledge of the best things; this cannot easily happen in a whole people; neither the whole nor the greater part will miss the right objects of knowledge, when knowledge is generally diffused.

As evidence of the vast progress which we have made in right thinking upon this subject, we cannot help remarking, that even Milton and Locke, though both men of great benevolence toward the larger family of mankind, and both men whose sentiments were democratical, yet seem, in their writings on education, to have had in view no education but that of the *gentleman*. It had not presented itself, even to their minds, that education was a blessing in which the indigent orders could be made to partake.

As we strive for an equal degree of justice, an equal degree of temperance, an equal degree of veracity, in the poor as in the rich, so ought we to strive for an equal degree of intelligence, if there were not a preventing cause. It is absolutely necessary for the existence of the human race, that labour should be performed, that food should be produced, and other things provided, which human welfare requires. A large proportion of mankind is required for this labour. Now, then, in regard to all this portion of mankind, that labours, only such a portion of time can by them be given to the acquisition of intelligence, as can be abstracted from labour. The difference between intelligence and the other qualities desirable in the mind of man, is this, That much of time, exclusively devoted to the fixing of the associations on which the other qualities depend is not necessary; such trains may go on while other things are attended to, and amid the whole of the business of life. The case is to a certain extent, the same with intelligence; but, to a great extent, it is not. Time must be exclusively devoted to the acquisition of it; and there are degrees of command over knowledge to which the whole period of human life is not more than sufficient. There are degrees, therefore, of intelligence, which must be reserved to those who are not obliged to labour.

The question is (and it is a question which none can exceed in importance), What is the degree attainable by the most numerous class? To this we have no doubt, it will, in time, very clearly appear, that a most consolatory answer may be given. We have no doubt it will appear that a very high degree is attainable by them. It is now almost universally acknowledged, that, on all conceivable accounts, it is desirable that the great body of the people should not be wretchedly poor; that when the people are wretchedly poor, all classes are vicious, all are hateful, and all are unhappy. If so far raised above wretched poverty, as to be capable of being virtuous; though it be still necessary for them to earn their bread by the sweat of their brow, they are not bound down to such incessant toil as to have no time for the acquisition of knowledge, and the exercise of intellect. Above all, a certain portion of the first years of life are admirably available to this great end. With a view to the productive powers of their very labour, it is desirable that the animal frame should not be devoted to it before a

certain age, before it has approached the point of maturity. This holds in regard to the lower animals; a horse is less valuable, less, in regard to that very labour for which he is valuable at all, if he is forced upon it too soon. There is an actual loss, therefore, even in productive powers, even in good economy, and in the way of health and strength, if the young of the human species are bound close to labour before they are fifteen or sixteen years of age. But if those years are skilfully employed in the acquisition of knowledge, in rendering all those trains habitual on which intelligence depends, it may be easily shown that a very high degree of intellectual acquirements may be gained; that a firm foundation may be laid for a life of mental action, a life of widom, and reflection, and ingenuity, even in those by whom the most ordinary labour will fall to be performed. In proof of this, we may state, that certain individuals in London, a few years ago, some of them men of great consideration among their countrymen, devised a plan for filling up those years with useful instruction; a plan which left the elements of hardly any branch of knowledge unprovided for; and at an expence which would exceed the means of no class of a population, raised as much above wretched poverty as all men profess to regard as desirable. Mr. Bentham called this plan of instruction by the Greek name Chrestomathia; and developed his own ideas of the objects and mode of instruction, with that depth and comprehension which belong to him, in a work which he published under that name. \* Of the practicability of the scheme no competent judge has ever doubted; and the difficulty of collecting funds is the only reason why it has not been demonstrated by experiment, how much of that intelligence which is desirable for all may be communicated to all.†

Beside the knowledge or faculties, which all classes should possess in common, there are branches of knowledge and art, which they cannot all acquire, and, in respect to which, education must undergo a corresponding variety. The apprenticeships, for example, which youths are accustomed to serve to the useful arts, we regard as a branch of their education. Whether there apprenticeships, as they have hitherto been managed, have been good instruments of education, is a question of importance, about which there is now, among enlightened men, hardly any diversity of opinion. When the legislature undertakes to do for every man, what every man has abundant motives to do for himself, and better means than the legislature; the legislature takes a very unnecessary, commonly a not very innocent trouble. Into the details, however, of the best mode of teaching, to the working people, the arts by which the different commodities useful or agreeable to man are provided, we cannot possibly enter. We must content ourselves with marking it out as a distinct branch of the subject, and an important object of study.

With respect to the education of that class of society who have wealth and time for the acquisition of the highest measure of intelligence, there is one question to which every body must be prepared with an answer. If it be asked, whether, in the constitution of any establishment for the education of this class; call it university, call it college, school, or any thing else; there ought to be a provision for perpetual improvement; a provision to make the institution keep pace with the human mind; or whether, on the other hand, it ought to be so constituted as that there should not only be no provision for, but a strong spirit of resistance, to all improvement, a passion of adherence to whatever was established in a dark age, and a principle of hatred to those by whom

improvement should be proposed; all indifferent men will pronounce, that such institution would be a curse rather than a blessing. That he is a *progressive* being, is the grand distinction of Man. He is the only progressive being upon this globe. When he is the most rapidly progressive, then he most completely fulfils his destiny. An institution for *education* which is hostile to progression, is, therefore, the most preposterous, and vicious thing, which the mind of man can conceive.

There are several causes which tend to impair the utility of old and opulent establishments for education. Their love of ease makes them love easy things, if they can derive from them as much credit, as they would from others which are more difficult. They endeavour, therefore, to give an artificial value to trifles. Old practices, which have become a hackneyed routine, are commonly easier than improvements; accordingly, they oppose improvements, even when it happens that they have no other interest in the preservation of abuses. Hardly is there a part of Europe in which the universities are not recorded in the annals of education, as the enemies of all innovation. "A peine la compagnie de Jesus," says d'Alembert, "commençait elle à se montrer en France, qu'elle essuya des difficultés sans nombre pour s'y établir. Les universités sur tout firent les plus grands efforts, pour écarter ces nouveaux venus. Les Jesuites s'annonçaient pour enseigner gratuitement, ils comptoient déja parmi eux des hommes savans et célèbres, superieures peut être à ceux dont les universités pouvaient se glorifier; l'interêt et la vanité pouvaient donc suffire à leurs adversaires pour chercher à les exclure. On se rapelle les contradictions semblables que les ordres mendians essuyerent de ces mêmes universités quand ils voulurent s'y introduire; contradictions fondées à peu près sur les mêmes motifs." (Destruction des Jesuites en France.) The celebrated German philosopher, Wolf, remarks the aversion of the universities to all improvement, as a notorious fact, derived from adequate motives: "Non adeo impune turbare licet scholarium quietem, et docentibus lucrosam, et discentibus jucundam."—(Wolfii *Logica*, Dedic. p. 2.)

But though such and so great are the evil tendencies which are to be guarded against in associated seminaries of education; evil tendencies which are apt to be indefinitely increased, when they are united with an ecclesiastical establishment, because, whatever the vices of the ecclesiastical system, the universities have in that case an interest to bend the whole of their force to the support of those vices, and to that end to vitiate the human mind, which can only be rendered the friend of abuses in proportion as it is vitiated intellectually, or morally, or both; it must, notwithstanding, be confessed, that there are great advantages in putting it in the power of the youth to obtain all the branches of their education in one place; even in assembling a certain number of them together, when the principle of emulation acts with powerful effect; and in carrying on the complicated process according to a regular plan, under a certain degree of discipline, and with the powerful spur of publicity. All this ought not to be rashly sacrificed; nor does there appear to be any insuperable difficulty, in devising a plan for the attainment of all those advantages, without the evils which have more or less adhered to all the collegiate establishments which Europe has yet enjoyed.

After the consideration of these questions, we ought next to describe, and prove by analysis, the exercises which would be most conducive in forming those virtues which we include under the name of intelligence. But it is very evident, that this is a matter

of detail far too extensive for so limited a design as ours. And though, in common language, Education means hardly any thing more than making the youth perform those exercises; and a treatise on Education means little more than an account of them; we must content ourselves with marking the place which the inquiry would occupy in a complete system, and proceed to offer a few remarks on the two remaining branches of the subject, *Social Education*, and *Political Education*.

The branches of moral education, heretofore spoken of, operate upon the individual in the first period of life, and when he is not as yet his own master. The two just now mentioned operate upon the whole period of life, but more directly and powerfully after the technical education is at an end, and the youth is launched into the world under his own control.

3. Social Education is that in which Society is the Institutor. That the Society in which an individual moves produces great effects upon his mode of thinking and acting, every body knows by indubitable experience. The object is, to ascertain the extent of this influence, the mode in which it is brought about, and hence the means of making it operate in a good, rather than an evil direction.

The force of this influence springs from two sources: the principle of imitation; and the power of the society over our happiness and misery.

We have already shown, that when, by means of words and other signs of what is passing in the minds of other men, we are made to conceive, step by step, the trains which are governing them, those trains, by repetition, become habitual to our own minds, and exert the same influence over us as those which arise from our own impressions. It is very evident, that those trains which are most habitually passing in the minds of all those individuals by whom we are surrounded, must be made to pass with extraordinary frequency through our own minds, and must, unless where extraordinary means are used to prevent them from producing their natural effect, engross to a proportional degree the dominion of our minds. With this slight indication of this source of the power which society usurps over our minds, that is, of the share which it has in our education, we must content ourselves, and pass to the next

Nothing is more remarkable in human nature, than the intense desire which we feel of the favourable regards of mankind. Few men could bear to live under an exclusion from the breast of every human being. It is astonishing how great a portion of all the actions of men are directed to these favourable regards, and to no other object. The greatest princes, the most despotical masters of human destiny, when asked what they aim at by their wars and conquests, would answer, if sincere, as Frederic of Prussia answered, *pour faire parler de soi*; to occupy a large space in the admiration of mankind. What are the ordinary pursuits of wealth and of power, which kindle to such a height the ardour of mankind? Not the mere love of eating and of drinking, or all the physical objects together, which wealth can purchase or power command. With these every man is in the long run speedily satisfied. It is the easy command, which those advantages procure over the favourable regards of society,—it is this which renders

the desire of wealth unbounded, and gives it that irresistible influence which it possesses in directing the human mind.

Whatever, then, are the trains of thought, whatever is the course of action which most strongly recommends us to the favourable regards of those among whom we live, these we feel the strongest motive to cultivate and display; whatever trains of thought and course of action expose us to their unfavourable regards, these we feel the strongest motives to avoid. These inducements, operating upon us continually, have an irresistible influence in creating habits, and in moulding, that is, educating us, into a character conformable to the society in which we move. This is the general principle; it might be illustrated in detail by many of the most interesting and instructive phenomena of human life; it is an illustration, however, which we cannot pursue.

To what extent the habits and character, which those influences tend to produce, may engross the man, will no doubt depend, to a certain degree, upon the powers of the domestic and technical education which he has undergone. We may conceive that certain trains might, by the skilful employment of the early years, be rendered so habitual as to be uncontrollable by any habits which the subsequent period of life could induce, and that those trains might be the decisive ones, on which intelligent and moral conduct depends. The influence of a vicious and ignorant society would in this case be greatly reduced; but still, the actual rewards and punishments which society has to bestow, upon those who please, and those who displease it; the good and evil, which it gives, or withholds, are so great, that to adopt the opinions which it approves, to perform the acts which it admires, to acquire the character, in short, which it "delighteth to honour," can seldom fail to be the leading object of those of whom it is composed. And as this potent influence operates upon those who conduct both the domestic education and the technical, it is next to impossible that the trains which are generated, even during the time of their operation, should not fall in with, instead of counteracting, the trains which the social education produces; it is next to impossible, therefore, that the whole man should not take the shape which that influence is calculated to impress upon him.

4. The Political Education is the last, which we have undertaken to notice, of the agents employed in forming the character of man. The importance of this subject has not escaped observation. Some writers have treated of it in a comprehensive and systematical manner. And a still greater number have illustrated it by occasional and striking remarks. It is, nevertheless, true, that the full and perfect exposition of it yet remains to be made.

The Political Education is like the key-stone of the arch; the strength of the whole depends upon it. We have seen that the strength of the Domestic and the Technical Education depends almost entirely upon the Social. Now it is certain, that the nature of the Social depends almost entirely upon the Political; and the most important part of the Physical (that which operates with greatest force upon the greatest number, the state of aliment and labour of the lower classes), is, in the long-run, determined by the action of the political machine. The play, therefore, of the political machine acts immediately upon the mind, and with extraordinary power; but this is not all; it also

acts upon almost every thing else by which the character of the mind is apt to be formed.

It is a common observation, that such as is the direction given to the desires and passions of men, such is the character of the men. The direction is given to the desires and passions of men by one thing, and one alone; the means by which the grand objects of desire may be attained. Now this is certain, that the means by which the grand objects of desire may be attained, depend almost wholly upon the political machine. When the political machine is such, that the grand objects of desire are seen to be the natural prizes of great and virtuous conduct—of high services to mankind, and of the generous and amiable sentiments from which great endeavours in the service of mankind naturally proceed—it is natural to see diffused among mankind a generous ardour in the acquisition of all those admirable qualities which prepare a man for admirable actions; great intelligence, perfect self-command, and over-ruling benevolence. When the political machine is such that the grand objects of desire are seen to be the reward, not of virtue, not of talent, but of subservience to the will, and command over the affections of the ruling few; interest with the man above to be the only sure means to the next step in wealth, or power, or consideration, and so on; the means of pleasing the man above become, in that case, the great object of pursuit. And as the favours of the man above are necessarily limited—as some, therefore, of the candidates for his favour can only obtain the objects of their desire by disappointing others—the arts of supplanting rise into importance; and the whole of that tribe of faculties denoted by the words intrigue, flattery, back-biting, treachery, &c., are the fruitful offspring of that political education which government, where the interests of the subject many are but a secondary object, cannot fail to produce.

- J. Innes, Printer, 61, Wells-street, Oxford-street, London.
- [\*] There is one brilliant authority on the side of Helvetius: "It was a favourite opinion of Sir Wm. Jones, that all men are born with an equal capacity of improvement."—Lord Teignmouth's *Life of Sir William Jones*, vol. ii. p. 211.
- [\*] An Inquiry into the Nature and Origin of Mental Derangement, &c. By A. Crichton, M. D. T. 274.
- [\*] Chrestomathia, being a collection of papers, explanatory of the design of an institution proposed to be set on foot, under the name of Chrestomathic day school, &c. By Jeremy Bentham, Esq.
- [†] We mention with extraordinary satisfaction, that an idea of education, hardly less extensive than what is here alluded to, has been adopted by that enlightened and indefatigable class of men, the Baptist Missionaries in India, for the population, poor as well as ignorant, of those extensive and populous regions. A small volume, entitled "Hints relative to Native Schools, together with the Outline of an Institution for their Extension and Management," was printed at the mission press at Serampore in 1816; and, as it cannot come into the hands of many of our readers, we gladly copy from it the following passage, in hopes that the example may be persuasive with many of our countrymen at home.

"It is true, than when these helps are provided, namely, a correct system of orthography, a sketch of grammar, a simplified system of arithmetic, and an extended vocabulary, little is done beyond laying the foundation. Still, however, this foundation must be laid, if any superstructure of knowledge and virtue be attempted relative to the inhabitants of India. Yet, were the plan to stop here, something would have been done. A peasant or an artificer, thus rendered capable of writing as well as reading his own language with propriety, and made acquainted with the principles of arithmetic, would be less liable to become a prey to fraud among his own countrymen; and far better able to claim for himself that protection from oppression which it is the desire of every enlightened government to grant. But the chief advantage derivable from this plan is, its facilitating the reception of ideas which may enlarge and bless the mind in a high degree,—ideas for which India must be indebted to the West, at present the seat of science, and for the communication of which, generations yet unborn, will pour benedictions on the British name.

- "1. To this, then, might be added a concise, but perspicuous account of the solar system, preceded by so much of the laws of motion, of attraction, and gravity, as might be necessary to render the solar system plain and intelligible. These ideas, however, should not be communicated in the form of a treatise, but in that of simple axioms, delivered in short and perspicuous sentences. This method comes recommended by several considerations;—it agrees with the mode in which doctrines are communicated in the *Hindoo Shastras*, and is therefore congenial with the ideas of even the learned among them; it would admit of these sentences being written from dictation, and even committed to memory with advantage, as well as of their being easily retained; and, finally, the conciseness of this method would allow of a multitude of truths and facts relative to astronomy, geography, and the principal phenomena of nature, being brought before youth within a very small compass.
- "2. This abstract of the solar system might be followed by a compendious view of geography on the same plan—that of comprising every particular in concise but luminous sentences. In this part it would be proper to describe Europe particularly, because of its importance in the present state of the world; and Britain might, with propriety, be allowed to occupy in the compendium, that pre-eminence among the nations which the God of Providence has given her.
- "3. To these might be added a number of popular truths and facts relative to natural philosophy. In the present improved state of knowledge, a thousand things have been ascertained relative to light, heat, air, water to meteorology, mineralogy, chemistry, and natural history, of which the ancients had but a partial knowledge, and of which the natives of the East have as yet scarcely the faintest idea. These facts, now so clearly ascertained, could be conveyed in a very short compass of language, although the process of reasoning, which enables the mind to account for them, occupies many volumes. A knowledge of the facts themselves, however, would be almost invaluable to the Hindoos, as these facts would rectify and enlarge their ideas of the various objects of nature around them; and while they, in general, delighted as well as informed those who read them, they might inflame a few minds of a superior order with an unquenchable desire to know why these things are so, and thus urge them to

those studies, which in Europe have led to the discovery of these important facts.

"4. To this view of the solar system of the earth, and the various objects it contains, might, with great advantage, be added such a compendium of history and chronology united, as should bring them acquainted with the state of the world in past ages, and with the principal events which have occurred since the creation of the world. With the creation it should commence, describe the primitive state of man, the entrance of evil, the corruption of the antediluvian age, the flood, and the peopling of the earth anew from one family, in which the compiler should avail himself of all the light thrown on this subject by modern research and investigation; he should particularly notice the nations of the east, incorporating, in their proper place, the best accounts we now have both of India and China. He should go on to notice the call of Abraham. the giving of the decalogue, the gradual revelations of the Scriptures of Truth, the settlement of Greece, its mythology, the Trojan war, the four great monarchies, the advent of the Saviour of men, the persecutions of the Christian church, the rise of Mahometanism, the origin of the papacy, the invention of printing, of gunpowder, and the mariner's compass, the reformation, the discovery of the passage to India by sea, and the various discoveries of modern science. Such a synopsis of history and chronology, composed on the same plan, that of comprising each event in a concise but perspicuous sentence, would exceedingly enlarge their ideas relative to the state of the world, certainly not to the disadvantage of Britain, whom God has now so exalted as to render her almost the arbitress of nations.

"5. Lastly, It would be highly proper to impart to them just ideas of themselves, relative both to body and mind, and to a future state of existence, by what may be termed a Compendium of Ethics and Morality. The complete absence of all just ideas of this kind, is the chief cause of that degradation of public morals so evident in this country.

"These various compendiums, after being written from dictation, in the manner described in the next section, might also furnish matter for reading; and when it is considered that, in addition to the sketch of grammar, the vocabulary, and the system of arithmetic, they include a view of the solar system, a synopsis of geography, a collection of facts relative to natural objects, an abstract of general history, and a compendium of ethics and morality, they will be found to furnish sufficient matter for reading while youth are at school."

Why should not the same idea be pursued in England, and as much knowledge conveyed to the youth of all classes at school, as the knowledge of the age, and the allotted period of schooling will admit?