

THE "HAMILTONIAN SYSTEM" OF EDUCATION.

IN the contest that is waged between the upholders of the old-fashioned grammar-and-lexicon style of education and the advocates of "improved methods," mention is made from time to time, as in a recent number of *Macmillan's Magazine*, of what is known as the "Hamiltonian system." The name is by no means a familiar one to the present generation of students, few of whom, probably, are aware how fiercely the educational world was agitated, some sixty years ago, by the first introduction of Hamilton's daring scheme of reform, and what sanguine estimates were formed of its possible results. "We should opine," said a writer in the *Westminster Review* in 1829, "that some time about the year 1849 all the little boys and girls in the country will have great reason to make mention of Mr. Hamilton in a thanksgiving, in their morning and evening prayers." Twenty years were then calculated to be sufficient for the realisation of the Hamiltonian system; yet (alas for the impatience of human forecasts!) thrice that period has now almost gone by, and the little boys and girls, so far from blessing the name of their deliverer, are still groaning daily under the bondage of the grammarian.

James Hamilton, who was born in 1769, and was at first occupied in mercantile pursuits, has himself left a record of the origin and reception of what he regarded as a great educational discovery. We learn from his "History of the Hamiltonian System," published in 1829, that he got the idea of dispensing with the use of grammar or dictionary from a French *émigré* at Hamburg in 1798. He did not, however, put the plan into execution until 1815, and then more by accident than by deliberate intent; for having gone to the United States with the purpose of becoming a manufacturer of potash, and having actually set out on horseback from New York to proceed to the farm which he had taken, he suddenly changed his mind, rode back to New York, and finding himself in need of employment to gain a living, took to education as a *pis aller*, adopting as his method

the system which he had been turning over in his mind during the seventeen preceding years. If we may trust his own account—and in this instance there seems no reason for distrusting it—his success in the United States was almost phenomenal. How he commenced at New York with the "Rev. Mr. Feltus" and "Judge Van Ness" as his earliest pupils; how the rapidity of their progress soon attracted crowds to his class-room; how, after founding a school at New York, he visited all the chief cities in the States and Canada, winning popularity everywhere, in spite of the vigorous opposition of the native schoolmasters—all this, and a great deal more besides, sounds more like fairy-lore than fact in the Hamiltonian narrative. He tells us that it was at Philadelphia that what had at first been a mere essay in educational reform began to assume the proportions of a "system"; and now, before we proceed to the account of the promulgation of Hamilton's doctrines in England, it may be well to state, as much as possible in his own words, what the system was, and how it differed from the established methods of education.

The Hamiltonian system consisted of six principles, not formulated by their author beforehand, but suggested and adopted by gradual experience. (1) The first principle, which Hamilton declared to be the basis of all the rest, is that the master must "*teach* instead of *ordering to learn*." This may appear at first sight to be a mere truism, but a little consideration shows that in reality it involves a complete reversal of the ordinary method of classical instruction; since the schoolmaster usually conceives it to be his duty to give his pupils merely a clue to follow out for themselves by help of dictionary and grammar, whereas the Hamiltonian teacher would impart the desired knowledge at once. Here we have a direct conflict of principles; on the one hand the assertion that it is not what is done for a boy, but what he does for himself, that is of value in education, and that the master must not aim so much at the infusion of knowledge as at the strengthening of his pupils' minds in the process of learning; on the other, the belief that knowledge is not only an end in itself, but also the best and readiest means of improving the mind. To tell a pupil the meaning of a sentence or passage, instead of leaving him to puzzle it out, right or wrong, for himself, would be regarded by the majority of classical masters as a weakness discreditable to the teacher and enervating to the taught; yet this is precisely what Hamilton advocated as the only robust and effectual method of education, at any rate in the earlier stages. The contempt expressed by many orthodox teachers for this fundamental principle of the Hamiltonian system is founded, as was long ago shown by a writer

in the *Westminster Review*,¹ on a complete misconception. The error lies in supposing that the faculties of a pupil are not being properly and sufficiently exercised if he is merely *receiving* knowledge, "as if activity of the intellectual faculties were not in the very nature of the thing essential to the reception of a new idea. In receiving knowledge on any subject that is new to it, even the most acute and powerful mind has plenty to do." This, then, is what Hamilton meant in laying it down as the axiom of his system that the master must *teach* (*i.e.* fully explain at the outset), in contrast to the usual plan of *ordering to learn* (*i.e.* appointing the pupil a task and aiding him only by hints and suggestions). It is often said nowadays by the adherents of the old methods that boys go to school not to learn, but "to learn how to learn." The Hamiltonian system is based on the opposite of this principle.

(2) Hamilton's second principle is that pupils should be taught *to translate at once*, instead of being made to get the rules of grammar by heart. He held that a vocabulary, the meaning of words, is the first and most essential foundation of knowledge; and that the direct study of grammar may be conveniently deferred until the pupil has incidentally become familiar with the various inflections of the language he is reading. *Reading*, he again and again asserts, is the all-in-all of instruction; it is "the pure spring of nine-tenths of our intellectual enjoyments," and, as such, must not be sacrificed to grammar or composition, or to getting by heart anything whatever, "because these are utterly unattainable before we have read a great deal." In expressing this opinion, Hamilton was of course only following in the footsteps of previous reformers, Facciolati, Dumarsais, Locke, and others, who had urged the same point with more or less insistence. "If grammar," says Locke, "ought to be taught at any time, it must be to one that can speak the language already; how else can he be taught the grammar of it?" Hamilton, like other educational reformers before and since, makes a vigorous attack on the most vulnerable points of the old classical system, such as the great expenditure of the pupil's time in contrast with the smallness of the results; the boy, he says, is kept, "like another Sisyphus, the whole time of his scholastic life, rolling up the stone of science all the day, to see it roll down every night, and then be obliged every morning to renew the disgusting task."

(3) Thirdly, Hamilton again followed Locke and Dumarsais in adopting the use of literal interlinear translations; but he insisted very strongly on one point which he said they had overlooked, *viz.*—

¹ January 1829.

the necessity of making the translations not merely interlinear but *analytical*, since "no translation can justly be called literal which is not analytical." By analytical translation is meant that in which "every word is rendered in English by a corresponding part of speech; the grammatical analysis of the phrase is never departed from; the case of every noun, pronoun, adjective, or particle, and the mood, tense, and person of every verb, are accurately pointed out by appropriate and unchanging signs." In this way, he declares, an analytical translation is a grammar and dictionary in one; and those persons who object to the Hamiltonian system because it neglects grammar, are like men who "cannot see the wood for trees." "To analyse a phrase word for word; to translate it by corresponding parts of speech; and to point out the grammatical construction of the phrase, the natural dependence of all the words of a sentence on each other—is not this the very essence of grammar?"

(4) Fourthly, he supplemented the last-named principle by the assertion that "words of all languages have, with few exceptions, *one meaning only*, and should be translated generally by the same word, which should stand for its representative at all times and in all places." He pronounced this a vital point in his system, not as "a theoretic, invariable truth," but as "an operative and practical principle," by which the tyro is directed on a safe and simple road, and rescued from the limitless chaos of the dictionary, which, by assigning numerous meanings to one and the same word, is utterly bewildering to the mind of a beginner. In order to conform as far as possible to this principle, Hamilton deliberately and cheerfully sacrificed all idiomatic beauty and elegance of language in his English versions, making them absolutely literal even to the point of grotesqueness; and even discountenancing Sydney Smith's suggestion that there should be two translations in use, one of which should be literal, and the other free. So uncompromising was he on this point, and so little dismayed by the ridicule which it attracted, that he is said to have remarked that whereas Dumarsais had translated in good French, *he* translated in bad English, and that this was the chief difference between them, from which he deduced his own superiority.

(5) The fifth principle had reference to the question of pronunciation and *vivâ voce* teaching. "The simple sounds of all languages being, with a few exceptions, identically the same, it must be as easy for an Englishman to pronounce French as English, when taught." The instruction given in the Hamiltonian classes was accordingly to be oral; the ear of the pupil was to be instructed no less than the eye; and the sound of the words was to be intimately associated

with the sense. In this way Hamilton claimed to be able to teach his pupils to speak a language as readily as to read it.

(6) The sixth and last point in Hamilton's system was the arrangement of the class and the method by which the teacher conveyed the instruction to his pupils. As we have just seen, the teaching was primarily oral; the printed translations being merely a supplementary contrivance, a key by which the lessons could be repeated and perfected out of class. The Hamiltonian teacher was directed to proceed in the following manner, the subject being, for instance, Latin, and the book to be first studied, the Gospel of St. John.

Taking these principles as a basis, the teacher forms his class of eight, ten, twenty or one hundred—the number is of little moment, it being as easy to teach a greater as a smaller one—and brings them at once to the language itself, by reciting with a loud articulate voice the first verse thus: *In in, principio* in beginning, *Verbum* Word, *erat* was, *et* and, *Verbum* Word, *erat* was, *apud* at, *Deum* God, *et* and, *Verbum* Word, *erat* was, *Deus* God. Having recited the verse once or twice himself, it is then recited precisely in the same manner by any person of the class whom he may judge most capable; the person copying his manner and intonations as much as possible. When the verse has been thus recited by six or eight persons of the class, the teacher recites the second verse in the same manner, and thus continues until he has recited from ten to twelve verses, which usually constitute the first lesson of one hour.

At each succeeding lesson the progress of the class becomes more rapid, until, at the seventh, it is found that the translation is accomplished with only occasional help from the teacher; but in order to insure this, it is necessary that every word of the preceding lessons shall have been thoroughly mastered. Hamilton asserts that after ten lessons his pupils are able to translate the whole Gospel of St. John, and thus is accomplished what is called the first section of the Latin course. After a second section of ten lessons, in which a harder book is read, the teaching of grammar is introduced.

From this time, that is from the beginning of the third section, the pupil studies the theory and construction of the language as well as its practice, for which purpose he reads the ancient authors, beginning with Cæsar. . . . The fifth and sixth sections consist of Virgil and Horace, enough of which is read to enable the pupil to read them with facility, and to give him correct ideas of prosody and versification. Five or six months, with mutual attention on the part of the pupil and teacher, will be found sufficient to acquire a knowledge of this language, which hitherto has rarely been the result of as many years."

Greek was taught by Hamilton after a similar fashion; and he boasts that the two classical languages, "instead of occupying eight or ten years' disgusting labour, may be thus acquired without difficulty,

nay, with interest and delight, in eighteen months or two years." It will be observed that grammar was not banished from his system, but merely postponed ; and in like manner composition could be studied, by those who desired it, by a simple reversal of the same process with the same books. But his main principle was that the constructive work must follow, and not precede, the analytical ; *reading* was to be the real basis of the pupil's education.

Armed with this "system," and encouraged by the success achieved by his schools in many American cities, Hamilton made his appearance in London somewhere in the year 1823, and soon caused a fine flutter in the scholastic doves by his sensational advertisements and the startling guarantees which he freely offered to all who would give him a trial. At first it seemed as if he were going to carry all before him, not in London only, but in Edinburgh, Dublin, Liverpool, Manchester, and "at least twenty other places" which he visited. In eighteen months he had six hundred pupils, and was engaged in publishing editions of his books in various languages ; his fame even spread to the Continent, where his "système naturel" showed signs of rivalling the popularity which Dumarsais' interlinear translations ("Méthode raisonnée pour apprendre la langue latine") had enjoyed in France at the time of the Revolution. On the other hand, he found that the opposition offered to his innovations was much stronger in England than in America ; for he was vehemently assailed as a quack and impostor, and soon after his arrival in London a pamphlet was published, entitled "An Exposure of the Fallacies of the Hamiltonian System," in which Hamilton was described as "a cunning, oily rogue." The writer, a Mr. J. H. Hartnoll, seems to have made himself peculiarly and personally obnoxious to Hamilton, by attending his lectures on every possible occasion and denouncing him to the audience, until at last the lecturer, who, according to Hartnoll's statement, used "the grossest invective" against his tormentor, was compelled to invoke the assistance of the police. Other pamphlets followed, chiefly from private professors of modern languages, who were evidently afraid that the growing fame of the Hamiltonian system would injure their interests ; while even such dignitaries as the Professor of Greek at Glasgow condescended to notice "the broad assumptions of this noisy reformer ; his warranting advertisements, of which the style seems borrowed from the stable-yard ; and his vituperative prefaces, not unworthy of a similar school." It is difficult, after so long a lapse of time, to estimate the rights and wrongs of this wordy warfare ; but, judging from the specimens I have seen, I should say that Hamilton

certainly had the advantage over his opponents in temper as well as argument. The objections they raise against his methods are, for the most part, very trivial and pointless; but it was no doubt an error of judgment, on his side, to engage in any such controversy at all; and this he himself admits in the "History of the Hamiltonian System."

Among those favourably inclined to Hamilton and his theories was Mr. John Smith, M.P., who was eager to found a Hamiltonian University; and it was chiefly by his exertions that a public trial of the system was instituted and carried out in 1825. "The lads selected for the experiment," says Sydney Smith in his article on the "Methods of Teaching Languages," "were parish boys of the most ordinary description, reading English worse than Cumberland curates and totally ignorant of the rudiments of any other language. The books set before them were the Gospel of St. John (Latin), parts of Cæsar's "Commentaries," some Italian books, and a selection of French histories." In his account of the affair Hamilton declares it to have been a failure, in comparison with what he usually effected, owing to the fact that such exceptionally backward pupils had to be taught the meaning of numberless *English* words before they could proceed to the Latin; but he adds that, in comparison with the ordinary system, it was distinctly a success. Such was also the independent judgment of a writer in the "Morning Chronicle" of November 16, 1825, who was present at the examination of the eight country boys by the gentlemen who inspected the class, among these visitors being two members of Parliament and the elder Mill, the historian of British India.

They first read different portions of the Gospel of St. John in Latin and Cæsar's "Commentaries," selected by the visitors. The translation was executed with an ease which it would be vain to expect in any of the boys who attend our common schools, even in their third or fourth year, and proved that the principle of exciting the attention of boys to the utmost, during the process by which the meaning of words is fixed in the memory, had given them a great familiarity with so much of the language as is contained in the books above alluded to. Their knowledge of the parts of speech was respectable, but not so remarkable. The same experiments were repeated in French and Italian with the same success, and upon the whole we cannot but think the success has been complete. It is impossible to conceive a more impartial mode of putting any system to the test than to make such an experiment on the children of our peasantry.

This report, the accuracy of which is vouched for by Sydney Smith, and seems to be beyond question, was no doubt instrumental in advancing Hamilton's reputation. His system was adopted in a modified form, and with an admixture of grammatical teaching in its

early stages, at the Bruce Castle School and at Maidstone, in both of which cases a successful result was reported by those who were engaged in the experiment. In 1826 appeared Sydney Smith's article in the *Edinburgh Review*, full of the warmest approval of the new method of teaching in its main aspects, though criticising it in certain minor points which Hamilton afterwards defended; and in 1829 this was followed by an equally favourable notice in the *Westminster*.¹ Even the hostile writer in the *London Magazine* for May 1827, while expressing his "enormous indignation" at the "quack" who ventured to insinuate that he could teach a language in fifty hours, was fain to admit that the system contained several good points, to which, however, he would not allow the merit of novelty. The superiority of the Hamiltonian scholars to their brethren of the grammar and dictionary was to be accounted for chiefly by the idleness of the latter. "In a grammar-school scarcely an hour in the day is spent by each boy in learning or in being taught, and that hour is not spent well. The greater part of the time is spent in mere mischief or idleness; in cutting desks, skinning books, dog's-earring leaves, drawing profiles, dreaming of tops, speculating on marbles, whispering, scribbling"; rather cold comfort, this, for the defenders of the classical strongholds. As far as we can now judge by the testimony still extant, the results produced by the Hamiltonian system wherever it was fairly and freely tried were valuable and substantial; and in the argumentative controversy that raged over the question of educational methods, the victory rested on the whole with the advocates of the new teaching.

Yet somehow the Hamiltonian system did not succeed in taking permanent hold of the popular fancy after the death of its author in 1831; and, looking back to it after a period of sixty years, we must pronounce the attempt to reform our educational methods to have been very nearly, if not altogether, a failure. No doubt some indirect results were realised in the way of making classical teachers set their houses in order and remove some of the more glaring anomalies of the old system; yet the main principle of grammar first and reading afterwards, which it was Hamilton's avowed object to overthrow, is still held to be the sheet-anchor of education, while analytical interlinear translations are still not exactly the books that are used in the lower forms of public schools. The classicists are certainly entitled to lay what emphasis they can on the fact that Hamilton's reforms did not take root and bring about the desired reformation

¹ *Vide Westminster Review*, vol. x. pp. 309-314.

though this, perhaps, can hardly be a matter for surprise to those who consider the strength and antiquity of the traditions which Hamilton attacked. We may surmise, too, that he made an error in advancing his doctrines, which were obviously and necessarily of a somewhat tentative character, as a cut-and-dried "system," for this, when viewed in conjunction with his habit of advertising and guaranteeing, suggested the suspicion of chicanery and boastfulness. He himself admits that he was guilty of one serious blunder, in attempting, as he did, to found numerous provincial schools, instead of devoting his attention to one or two typical institutions ; for, as he never stayed longer than six months at a time in any one place, he was sure at each move to leave some disappointed pupils behind him, and thus swell the ranks of those who for one reason or another were opposed to his innovations.

On the other hand, if we look at the present state of classical learning, I think it must be admitted that, by the rejection of Hamilton's improved methods, the grammarians and their supporters won a victory which has cost them very dear. There is a significant remark of Hamilton's which bears on this point : "Mankind," he says, "are anxious for real knowledge, and will not much longer put up with the shadow of it. Either the teacher will find out a mode of communicating a knowledge of the learned languages in a shorter time and more efficaciously than has been hitherto done, or the study of those languages will be relinquished altogether." It seems to me that this prophecy is even now in process of being verified, for the former alternative having been rejected by our classical teachers, the latter is being actually brought about by the institution of "modern sides" and the growing popularity of "modern subjects." The study of Greek, which might have been retained under a Hamiltonian system, is rapidly dropping out of the ordinary school curriculum.

There is no reason why educational reformers should accept or defend each and all of the principles included in Hamilton's system ; still less are they concerned to take up the gauntlet on behalf of Hamilton's own wisdom or learning ; for, as Sydney Smith long ago pointed out, the important question is not whether Hamilton was the wisest or weakest of men, nor yet whether his translations are good or bad ones, but "whether very close interlinear translations are helps in learning a language." This use of interlinear translations is, roughly speaking, the distinctive feature of the Hamiltonian system, and the fact that this system did not succeed half a century ago in

establishing itself as a permanent institution is no proof that it will not ultimately be recognised as based upon a sound and rational principle. It is on this issue that the educational battle has yet to be fought out ; and I, for one, firmly believe that the main principle for which Hamilton contended will in the end be accepted.

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