

Young William Rowan Hamilton

-

hyperpolyglot

by

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Introduction

Sir William Rowan Hamilton (1805-1865) was Ireland's most gifted mathematician, and Royal Astronomer from 1827 until his death. About young William Hamilton it [has been claimed](#) that "when thirteen years old [he] was in different degrees acquainted with thirteen languages." Although not denying that Hamilton had been a prodigy, people have disputed this language claim, suggesting that his knowledge of many of the languages was only rudimentary. Others even generally doubted his supposed mastery of multiple languages as a child.

The quite vague expression "in different degrees acquainted," is hard to interpret, and it would be interesting to see whether or not in his youth he was a so-called hyperpolyglot. The [International Association of Hyperpolyglots](#) defines a hyperpolyglot as someone who can speak at least six languages with fluency, or who is conversant in eight or more languages.

To find answers to the questions how many languages young Hamilton had "acquainted" before his fourteenth birthday and to what degree, and whether according to the definition he was a hyperpolyglot, Hamilton's first main [biography](#) has been searched. The biography was written by [Robert Perceval Graves](#) (1810-1893), and published in the 1880s.

Multilingualism

As regards the doubts whether or not Hamilton mastered 'multiple' languages as a child; if 'multiple' is read as 'a few,' it can easily be argued that there would have been nothing very special about that. Most people in the Western, non-English speaking countries almost unavoidably encounter in any case English as a second language from a very young age, and for many people around the world [multilingualism](#) even is the norm.

To take my own country, the Netherlands, as an example; we listen to songs in English; a large part of the television programs are in English while subtitled in Dutch; computer language is hardly translated so that we talk about files, directories, keyboards and smartphones. Regular courses in secondary or high school are English, German and French, and because at the gymnasia also Latin and Greek are taught it is possible to finish a secondary education with a combination of five languages, or six if also the obligatory Dutch is counted. If such a combination otherwise contains little science we (used to) call that a '[pretpakket](#)', which literally translates to a '[fun-package](#)', and would suggest relatively little effort or homework.

The origin of the claim; Graves' 1842 'portrait'

The language claim was made in an 1842 [portrait](#) of Hamilton, which was written by Hamilton's friend and later biographer Robert Graves in the [Dublin University Magazine](#) as a part of the series 'Our Portrait Gallery'. The importance of this portrait is that Hamilton [protested](#) against a part of it which concerned his income, and he [mocked](#) the summing up of so many languages, but he apparently did not protest against the given facts, which may signify that the statements made by Graves were at least largely true.¹

In the portrait Graves wrote, "In consequence of Mr. A. Hamilton, the father, having some friends among the body who then held the patronage of India, he originally destined his son to a life in the east, and accordingly directed that the mind of the child should be early employed in the acquisition of the oriental languages. Happily the subsequent development of his scientific powers frustrated this plan, but its immediate results were too remarkable in themselves, and for the proof they give of the activity and versatility of his faculties, to allow us to pass them unnoticed. At

¹ The same holds for [Hamilton's entry](#) in the *Imperial Dictionary of Universal Biography*; it was stated in the entry that "at thirteen he was acquainted with thirteen languages." [David Wilkins](#) comments that the entry [was sent to Hamilton](#) for critical correction. In the entry Hebrew is not mentioned as a language he had 'acquired elements of' in his early childhood even though it is known that Hamilton [read](#) the language before he was five, indicating that he did not protest against understatements.

the age of four he had made some progress in Hebrew: in the two succeeding years he had acquired the elements of Greek and Latin; and when thirteen years old was in different degrees acquainted with thirteen languages, besides the vernacular - Syriac, Persian, Arabic, Sanscrit, Hindoostanee, Malay, French, Italian, Spanish and German; and we are not sure that this list is a complete one."

Fact-checks

In chapters [III](#) and [IV](#) of the first volume of Graves' biography many remarks have been given about young Hamilton learning languages; here most of them are given in the [Appendix](#). The remarks come from letters by family members, written from the time William came to live in Trim with his uncle James (1776-1847) and aunt Sydney (1779-1814), brother and sister of his father Archibald (1778-1819), until August 1819, when he turned fourteen, thirteen being the age he was supposed to have become "acquainted" with thirteen languages. The writers of the letters almost invariably express their astonishment, and describe that of others, about the precocious child.

From these letters it is certain that already [in 1810](#), when William was about four-and-a-half, he was reading Hebrew, Greek and Latin, and that in [May 1813](#), seven years old, he was learning French and Italian. But from these letters it also becomes clear how high the threshold was for uncle James to declare that William 'mastered' a language. Even though around [1812 or 1813](#) a Dr. Meredith reported "with expressions of astonishment, that he had examined in the country a child of six or seven, who read and translated and understood Hebrew better than many candidates for fellowship," and in [September 1813](#) William's cousin Hannah Hutton² wrote that William had been "expressing with animation his feelings in Latin," which would indicate a high proficiency of the language, only in [May 1813](#) uncle James wrote to William's parents Archibald and Sarah (1780-1817) that he "could now say that William was master of three languages."

But also Hamilton himself used such high thresholds; [in 1849](#) he wrote to Helena von Ranke (1808-1871), a sister of Graves, "I am ridiculously stupid and helpless about foreign correspondence, though I read some foreign languages - say German, French, and Italian - with sufficient ease for the purposes of science at least, and, in some small degree, for those of literature." Most people would probably be very satisfied already with being able to read a language at such a level, but Hamilton was of course used to extreme levels of mastering subjects.

² Hannah Hutton is called a 'cousin', but because she was obviously older than William, she may have been his first cousin once removed; the [daughter](#) of Daniel Hutton, a brother of Robert Hutton, Hamilton's maternal grandfather, and therefore first cousin of his mother Sarah.

Archibald's claims

As can be seen in the biography, after the above mentioned [remarks](#) by Hannah Hutton the only remarks about William's progress come from his father Archibald. That may have induced people to doubt the accurateness of Archibald's claims, made in [May 1815](#), when William was nine years old; that his son was "intimately acquainted with," "proficient in" or "grounded in," Persian, Arabic, Sanscrit, Chaldee, Syriac, Hindoostanee, Malay, Mahratta, Bengali, and others, which would, with Hebrew, Greek, Latin, French and Italian, amount to at least fourteen languages.

Even though Archibald's claims about the Oriental languages indeed seem extraordinary, there are good reasons to take them seriously.

First, the reason that after 1814 the only information came from William's father is that in [October 1814](#), when William had just turned nine, aunt Sydney died, and she had been the main source of information about the young prodigy's progress. Moreover, uncle James is known to have taken very little care of his papers;³ if he did write 'reports,' they will have been lost. It is therefore not a question of William's father having made claims no one else made, it is simply very likely that no others were written down or preserved. After Sydney's death Archibald, Sarah and the children will have visited Trim as often as before. The adults⁴ then will have exchanged their information about William's progress orally; uncle James and William will have shown what they were doing as they [were used to](#), and Archibald and Sarah will have made their [wishes](#) for their son's education clear while [providing](#) the necessary books.

Second, the learning of three of the Oriental languages was confirmed by William in [December 1815](#), when he was ten, in a letter to his sister Grace (1802-1846). The growing boy therefore knowing or reading eight languages already, to become more acquainted with them and learn five more in the next three years does not seem to be in any way unthinkable, especially when realising how extremely intelligent he was. He did not even need all his time for learning the languages; Graves gave a record of weekly work done when he was fourteen, showing a large [variety of subjects](#).

³ When Graves was preparing for the biography and was looking for letters from Hamilton to uncle James, no letters were found. James' son James Alexander [wrote](#) to Graves: "my dear father ... who was indeed a man of great ability and learning, and of most charming versatility, as well as power and originality of mind, was not systematic, or careful of his papers: and I have often grieved to think that there remain the merest scraps and remnants of them, sufficient to indicate in the vaguest way the learning, research, refined and critical taste, poetry, philosophy, wit, pathos and sentiment, of which he was full."

⁴ Uncle James had married 'aunt Elizabeth' in February 1814.

It is not known to what level Hamilton mastered the various Oriental languages. The only known facts are that in [July 1817](#) he wrote a thirty-paged 'Syriac Grammar,' "the forms of their pronouns, and of their regular nouns and verbs," to which should follow "an account of their irregular and indeclinable words, etc., with a Syntax." And in [November 1819](#) he was able to write a letter in Persian, in connection with a [visit](#) of the [Ambassador](#) "from Irann" to Dublin in which the Secretary, Mr. Woollock, had "[observed no mistake](#)."

Obviously, there were only books to study from, and therefore for most of the languages learning to speak them will have been out of the question. There will hardly have been people around young Hamilton who could speak those languages, teach him pronunciation, and regularly converse with him. But to draw conclusions within the context of this article; in November 1819, when he was fourteen, being able to write such a letter in Persian, he will have been able at least to read Persian already while still thirteen.

Third, there also are some indirect clues to underpin Archibald's language claims. The first is that in [September 1819](#) he wrote to his son, "I am very happy to find you are not altogether giving up the pursuit, or at least the retention, of what you learned of the Orientals; there is no knowing the fortunate, or, more properly speaking, the providential occurrence or moment in your future life at which such knowledge may not prove available to your own interest, preferment, and public usefulness. I therefore feel gratified that you hold your ground in that branch of literature." It would be quite absurd to suppose that Archibald would write that to his son if it was not in any way true.

Also, in [November 1819](#) William wrote to uncle James, after having written the Persian letter, that the Secretary then had enquired "under whom [he] had studied Persian," and had asked him "as to my progress in other Oriental languages." Using such expressions in a letter to uncle James, without letting it be followed by a denial or at least some diminishment of the herewith suggested claim to possess such knowledge, signifies that the studies were taken seriously by both William and uncle James. And knowing how high the thresholds were for both of them, that he will have attained at least some level above just rudimentary.

That Hamilton indeed enjoyed learning languages, even though they eventually had to make room for the sciences, can be seen from a "metaphysico-phrenological analysis" Hamilton made of himself in [February 1838](#); in the section 'Intellectual Faculties' he wrote, "facility and pleasure in acquiring foreign languages, so far as to read them; but not in learning to speak or write them."

German and Spanish

There is some problem with Graves' 1842 [list of languages](#); it included German and Spanish. Spanish is never mentioned as an acquired language in Graves' later biography, and about German Hamilton wrote in [January 1830](#), "I have learned since [1828] to read German tolerably well with a dictionary." It is therefore not known whether Hamilton had also read German as a child; perhaps he had largely forgotten it. And it may just have been a coincidence that Spanish was not mentioned in any letter. An answer cannot be found in the biography, which was written after Hamilton's death.

Yet it is known that Graves [interviewed](#) Hamilton for the 1842 '[portrait](#)',⁵ and suggesting that he just was making such details up would be even more speculative than to make the above-mentioned assumptions.

A hyperpolyglot

From the data as given in Graves' biography, therefore without having researched further letters and notebooks at Trinity College Dublin Library, it is known that when Hamilton was nine years old he mastered, even to a very high level, Latin, Greek and Hebrew, had been learning French and Italian for two years already, and was in any case reading some Persian, Arabic, Sanscrit, Chaldee, Syriac, Hindoostanee, Malay, Mahratta and Bengali. At the time he turned fourteen he had reached some higher level in Persian, Arabic and Sanscrit, but it is not known how well he was reading or writing the other six Oriental languages.

Archibald wrote in [September 1819](#), about a month after William's fourteenth birthday, that he had "held his ground" in the Oriental languages. And about William's studies Graves [wrote](#) in his biography, while wrapping up his description of 1815, "all this knowledge seems to have been acquired, not indeed without diligence, but with perfect ease." In the three-and-a-half years between [May 1815](#) when his father made his claims, and his fourteenth birthday, William will therefore have reached in any case higher levels for these languages.

⁵ The difference between the 1842 portrait and the 1880s biography is that Graves only read the personal and family letters after Hamilton's death; writing the portrait he therefore may not have known about Archibald's language claims. Because Graves then lived in England, he will have visited Ireland for a longer time; preparing for the portrait he had to interview people, search records, newspapers and literature. Also the 1841 [visit](#) he paid to Dunsink Observatory, where the Hamiltons lived, "for the purpose of gathering facts" may have lasted for several days, as was customary in those times when travelling was not easy.

Concluding, with young Hamilton having been learning sixteen languages if German and Spanish are included, Graves' claim as made in the portrait, that "when thirteen years old [he] was in different degrees acquainted with thirteen languages," can be accepted as true.

The definition as given by the International Association of Hyperpolyglots, that a hyperpolyglot is 'someone who can speak at least six languages with fluency, or is conversant in eight or more languages,' will not have been met, because the focus is on speaking; in Hamilton's youth finding people in Trim to converse with regularly in so many different languages will not have been possible. But knowing that he mastered Latin, Greek and Hebrew, and had achieved higher levels in French, Italian, Persian, Arabic and Sanscrit, it can easily be assumed that in our digital times, in which it is easy to hear people speak in almost any language, he would have met the requirements.

Not having retained all of the knowledge

Yet Graves had also written in his portrait that he believed that Hamilton had "not found it possible or thought it worth his while to keep up his knowledge of all the languages."

Indeed [in 1832](#), having spoken French with an Italian astronomer who had visited the Observatory, Hamilton wrote to a friend, "I am laughing at the recollection of my attempt to talk French for the last hour or two. [...] I had never before attempted to say more than a sentence or two in French, although I read the language with sufficient ease; and I just knew enough of conversational French to be aware of the ludicrousness of my attempt, and to have a continued internal struggle to keep my own countenance, while I was imagining the struggle that the polite Signor must have had in keeping his. The pent up laugh came forth like a volcano when he was gone, and has scarcely subsided yet. If it had not been for the aid of the telescopes, and so-forth, which served in part as interpreters, I could hardly have been sure that we were always talking on a common subject."

And [in 1864](#), a year before his death, Hamilton wrote to a friend while writing about vision, that he had been "from childhood a reader, and even to some extent a writer, if childish journals intermixed with scraps of Persian and Sanscrit, &c., are to be accounted writings" After a life in mathematics at the highest possible levels, Hamilton apparently looked back on the child prodigy he once was with humorous remembrance.

Appendix

Testimonials and relevant quotations

In [September 1808](#), when William had just turned three, his aunt Sydney Hamilton wrote to his mother Sarah, "Your dear little Willy is very well and improving very fast; indeed James pays unremitting attention to him, and Willy is a very apt scholar, and yet how he picks up everything I know not, for he never stops playing and jumping about; I sometimes threaten to tie his legs when he comes to say his lessons. When the boys are reading the Bible, James calls him in to read, principally to shame some boys who are double his age, who do not read near so well, and you would really laugh to hear the consequential manner with which he reads. He is laying by the small books for Eliza [(1807-1851)], who he supposes is spelling by this."

In [November 1809](#), when William was four years old, Sydney wrote to Sarah: "We were invited to dine some days ago at Mr. Elliot's [then vicar of Trim]. [...] They got him to read for them, and were greatly astonished at his reading with the book upside down [...], they then turned the book every way, and every way Willy read well; I never saw Mr. Elliot laugh so much, for, as Willy as no idea of fear, all the little amusing tricks he would play at home he played there. [The next day] Willy was the subject of conversation the most of the evening. Mr. Elliot declared that such a child he had never seen, and that he was certain there was not another such in Ireland, that he not only read well, but was made to understand what he read. Mr. Wainright was astonished; he had never heard of all this before."

In [1810](#), when according to Graves William was four years and five months, his mother Sarah wrote to her sister, "I had William in town, and he took up my whole thoughts: he is one of the most surprising children you can imagine; it is scarcely credible: he not only reads well, but with such nice judgment and point, that it would shame many who have finished their education. His reciting is astonishing, and his clear and accurate knowledge of geography is beyond belief; he even draws the countries with a pencil on paper, and will cut them out, though not perfectly accurate, yet so well that anybody knowing the countries could not mistake them; but you will think this nothing when I tell you that he reads Latin, Greek, and Hebrew!! It is truly funny to see the faces some of the Wise Heads put on after examining him: they first look incredulous; then they look as if he said it as a parrot would; but after an examination of various books and various parts of the same book, and when sometimes, to correct those who from long neglect to read these dead languages have forgotten some letters, he puts them in, if they say no, he says, "well but it is so," and when they must agree with him, he says, "now see the

advantage of attending to what you read" they stare; then say that it is wrong to let his mind be so overstocked. They cannot suppose that all this is learned by him as play, and that he could no more speak or play as children in general do, than he could fly."

In [August 1810](#), when William had just turned five, Sarah wrote to her husband Archibald, "The dear children are well, and when the weather permits are constantly in the garden. Willy is as fond as usual of using his Hebrew or Latin on any occasion that strikes his imagination. Mr. Boot breakfasted here yesterday, and Willy at breakfast looking into his mug said, "Aunt, my mug is bohu" which [in Hebrew] signifies empty, or rather void. You would be amazed to hear him translating the first chapters of Genesis, and very anxious to get to the account of the flood."

Also [in 1810](#) but no date is given, Sydney wrote to Sarah: "Mr. Elliot took him the other day to visit a Mr. Winter, who lives about two miles off, and educates both his girls and boys at home; he was very much astonished: and James, who went also to return a visit, said he never saw Willy behave so well. He repeated Dryden's and Collins' s Ode inimitably, read both English and Greek, and repeated his Hebrew, for Mr. Elliot insisted on his giving them a little of everything. There was a Mr. Montgomery with the Elliots the other day; he is curate to Mr. Elliot's northern living, and takes a certain number of boys. We were there: they had been talking a great deal of Willy to him, however he looked on, it as all nonsense, till after tea Mr. Elliot got a Greek Homer, and desired Mr. Montgomery to examine him. When he opened the book he said, "oh this book has contractions, Mr. Elliot, of course the child cannot read it." "Try him, sir," said James. To his amazement Willy went on with the greatest ease. Mr. Montgomery dropped the book and paced the room; but every now and then he would come and stare at Willy, and when he went away, he told Mr. and Mrs. Elliot that such a thing he had never heard of, and that he really was seized with a degree of awe that made him almost afraid to look at Willy. He would not, he said, have thought so much of it had he been a grave, quiet child; but to see him the whole evening acting in the most infantine manner and then reading all these things, astonished him more than he could express.'

In 1842 Graves wrote about William [around 1812](#), "We well remember to have heard, long before we ever saw our friend, of Dr. Meredith, formerly fellow of Trinity College, and a man of great learning and ability, reporting with expressions of astonishment, that he had examined in the country a child of six or seven, who read and translated and understood Hebrew better than many candidates for fellowship; this child was young Hamilton."

In [May 1813](#), when William was seven, Sarah wrote to her sister, "We had a most pleasing letter from James Hamilton to-day, saying that he could now say that William was master of three languages [Latin, Hebrew, Greek], and that he prepares his business without any assistance, and that it is always correct. He also says that he finds so little difficulty in learning French and Italian, that he wishes to read Homer in French.

In [September 1813](#) William's cousin Hannah Hutton wrote in her diary about an excursion in the Co. Wicklow, from which it appears that William was developing fast. "I took a little walk up the road with William, and was much pleased listening to this interesting little boy, whilst he was reading to me parts of the 2nd canto of The Shipwreck. ... As we passed through the Scalp, William amused us by all at once expressing with animation his feelings in Latin. I was curious to know what they were; I asked him therefore to translate what he was saying, as I did not know the language; he very readily complied. I was greatly surprised to find, on further questioning him, that the composition was his own; for though I knew he was a child of extraordinary genius, I could hardly think it possible for a boy of his years to have such enlarged ideas. His subject was an address to Nature and Art, delivered in a bold and manly style; he concluded it by asking pardon of the latter for preferring the former greatly before her. Each face expressed satisfaction while listening to the little orator."

In [September 1814](#) Archibald wrote from London to Sarah, "I told you of the Arabic Bible for William. I hope he may persevere, and may retain his proper regard for and money as well as learning."

In [January 1815](#) Archibald wrote to Grace, "William is not satisfied till he learns the mother tongue of the Oriental languages, the Sanscrit, and I have written for the necessary books."

In [May 1815](#), when William was nine years old, Archibald wrote to a friend, "[William's] thirst for the Oriental languages is unabated. He is now master of most, indeed of all except the minor and comparatively provincial ones. The Hebrew, Persian, and Arabic are about to be confirmed by the superior and intimate acquaintance with the Sanscrit, in which he is already a proficient. The Chaldee and Syriac he is grounded in, and the Hindoostanee, Malay, Mahratta, Bengali, and others. He is about to commence the Chinese, but the difficulties of procuring books is very great. It cost me a large sum to supply him from London, but I hope the money was well expended."

In [December 1815](#) William wrote to Grace, "I have been for some time reading Lucian and Terence, the Hebrew Psalter on Sundays, and on Saturdays some

Sanscrit, Arabic, and Persian. I read at leisure hours Goldsmith's Animated Nature, and any new history or poetry that falls in my way. I like Walter Scott very much. In arithmetic I have got as far as Practice, and I have done near half the first book of Euclid with uncle. I do the antient and modern geography of the different countries together. I do the second Lesson every morning in the Greek Testament, and on Sunday after church go over the Scripture Lessons of the past week with Doddridge's Notes and Improvement, and before church I read Seeker on the Catechism, and in the evening Wells' Scripture Geography, a very entertaining book."

In [July 1817](#), just before turning twelve, William wrote a Syriac Grammar, containing what is necessary to read and write in Syriac. He did not feel able to write French letters yet.

In [August 1818](#), the month in which he turned thirteen, William wrote to his father, "I am very busy going over Homer and Virgil, and some other books, and have advanced a good deal in Science. I have made a kind of epitome of Algebra in my large Album. I am reading a little Italian in order to study the notes of an Italian Virgil that uncle has, and read Clairaut's Algebra in French." Graves comments, "The Epitome of Algebra to which he above refers is in the album ambitiously entitled 'a Compendious Treatise of Algebra, by William Hamilton,' and proceeds in six closely written folio pages as far as quadratic equations, beginning with Newton's definition. The first words of the 'Compendious Treatise' are "Algebra is defined Universal Arithmetic, because we deduce from it universal operations." The same album contains, written about the same time, 1818, 'A grammar of the Sanscrit Language extracted by William Hamilton' - 'An Arabic Praxis' - 'An Analysis of a passage in Syriac,' besides solutions of Walker's questions in Arithmetic and Algebra, 'age cards' [Graves added: ?], and problems in the game of draughts.

In [May 1819](#) Archibald wrote a letter to his son about his future, in which he, next to other studies such as History, Politics, Law, Divinity, which were all within William's reach, emphasized the study of the principal European and even Oriental languages, according to Graves the latter with a view to India. And in [September 1819](#), when William had just turned fourteen, Archibald wrote, "I am very happy to find you are not altogether giving up the pursuit, or at least the retention, of what you learned of the Orientals[...]. I [...] feel gratified that you hold your ground in that branch of literature."

In [December 1819](#) William wrote in his journal, " Finished the essential part of the Persian Grammar. Amused myself translating some of the "[Tuti Nameh](#)," "[Bulbul wa Baghban](#)," of [Sir W. Jones](#). On the 26th (Sunday) put some of the Gospel into

Syriac, and on the 30th finished the first half of the Seventh Iliad. Began "Comparison between the Persian and English languages."

[About 1826](#) Graves wrote: "[A journal dating from late 1826] puts on record the ambitious project then entertained by Hamilton, and communicated to Brinkley's daughter (at that time wife of Dr. R. J. Graves, the eminent physician), "that," to quote his own words, "among my other schemes I designed to study the literature of all languages": an achievement not so impracticable then as it would be now. In connexion with this subject, I may mention here that I remember [Mr. Southey](#) in 1833 or 1834 saying that not many years before it was possible for the man of letters to become master of all that deserves to be called Literature ; but adding, that at the time he spoke, the possibility had passed away. Of course literature is here to be understood in a restricted sense, excluding Science and works of a technical as well as those of an ephemeral character."

In [January 1830](#) Hamilton wrote to a friend, "I have learned since I saw you to read German tolerably well with a dictionary."

And [in 1852](#) Hamilton wrote to a friend, "I was very near being made a Hiberno-Indian by my father, when I was a child."

Studying a large variety of subjects

Young William Hamilton's pace of learning was incredible, leading Graves to comment on it. He [wrote](#), "A separate record exists of weekly work done by him from January 10 to May 13, 1820. I have thought it worth while to make an abstract of this record with a view of exhibiting the extent of his reading in those four months.

His religious studies included the Holy Bible with Commentaries; the Psalms and Greek Testament in the original languages; the Septuagint version; Elizabeth Smith's Translation of the Book of Job; Sermons by Home, Alison, Massillon, Chalmers; Seeker's Lectures on the Catechism; Clarke on Exodus.

In Classics: Homer's Iliad, of which he carried on a blank verse translation; AEschylus (Prometheus Vinctus); Sophocles (OEdipus); Virgil, Aeneid, with blank verse translation; Terence B.V. Trans.; Sallust, Lucian, Horace, Classical Journal. Another journal speaks of the Philoctetes of Sophocles and of Demosthenes as having been read by him at this time.

In Oriental languages: Hebrew; Arabic Bible (Exodus and Jeremiah); Sanscrit, Syriac, Persian (Sir W. Jones).

In Science: Algebra (Arithmetical and Geometrical Progression); Euclid; the theory of Eclipses.

In Law: Blackstone's Commentaries.

In History: Hooke, Vertot, Morgan's France, Smollett, Adams's Manners and Customs of the Romans, Goldsmith.

In English Poetry: Shakespeare's Winter's Tale; Milton; Young's Night Thoughts; Blair's Grave, Crabbe, Southey's Roderick (respecting which he notes that he "considers it a very well-wrought and affecting poem").

In miscellaneous reading: Blackwood, Book of Plants, Biography, Edgeworth's Letters, Baron Smith's Charge to the Grand Jury at Mullingar (recommended to his attention by his uncle as a model of style), and some authors who are now forgotten.

This record also shows that in studying the Classics he regularly pursued the system of re-translating after translating, and that his practice was to study passages of moderate length with great accuracy and thoroughness, using all aids within his reach of notes and translations."