

Marx Hardy Machiavelli Joyce Austen
Defoe Abbot Melville Montaigne Cooper Emerson Hugo
Stoker Wilde Christie Maupassant Haggard Chesterton Molière Eliot Grimm
Garnett Engels Schiller Byron Maupassant
Goethe Hawthorne Smith Kafka
Cotton Dostoyevsky Kipling Doyle
Baum Henry Flaubert Nietzsche Willis
Leslie Dumas Stockton Vatsyayana Crane
Burroughs Verne
Curtis Tocqueville Gogol Busch
Homer Tolstoy Whitman Twain
Darwin Zola Lawrence Dickens Plato
Potter Freud Jowett Stevenson Andersen Harte
Kant London Descartes Cervantes Burton Hesse
Poe Aristotle Wells Voltaire Cooke
Hale James Hastings Shakespeare Irving
Bunner Richter Chekhov Chambers Alcott
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Thomas Henry Huxley A Character Sketch

Leonard Huxley

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I

INTRODUCTORY

The object of a full-dress biography is to present as complete a picture as may be of a man and his work, the influence of his character upon his achievement, the struggle with opposing influences to carry out some guiding purpose or great idea. With abundant documents at hand the individual development, the action of events upon character, and of character upon events, can be shown in the spontaneous freedom of letters, as well as in considered publications. But this little book is not a full-dress biography, although it may induce readers to turn to the larger *Life and Letters*, in which (or in the *Aphorisms and Reflections of T.H. Huxley*) facts and quotations can be turned up by means of the index; it is designed rather as a character sketch, to show not so much the work done as what manner of man Huxley was, and the spirit in which he undertook that work. It will not be a history of his scientific investigations or his philosophical researches; it will be personal, while from the personal side illustrating his attitude towards his scientific and philosophical thought.

II

EARLY DAYS

Thomas Henry Huxley was born ten years after Waterloo, while the country was still in the backwash of the long-drawn Napoleonic wars. It was a time of material reconstruction and expansion, while social reconstruction lagged sadly and angrily behind. The year of his birth saw the first railway opened in England; it was seven years before electoral reform began, with its well-meant but dispiriting sequel in the new Poor Law. The defeat of the political and aggressive cause which had imposed itself upon the revolutionary inspiration of freedom strengthened the old orthodoxies here. Questioning voices were raised at their proper peril.

Thomas Henry was the seventh child of George Huxley and Rachel Withers, his wife. He was born on May 4, 1825, at half-past nine in the morning, according to the entry in the family Bible, at Ealing, where his father was senior assistant-master in the well-known school of Dr. Nicholas, of Wadham College, Oxford. The good doctor, who had succeeded his father-in-law here in 1791, was enough of a public character to have his name parodied by Thackeray as Dr. Tickleus.

"I am not aware," writes Huxley playfully in an autobiographical sketch,

that any portents preceded my arrival in this world; but in my childhood I remember hearing a traditional account of the manner in which I lost the chance of an endowment of great practical value. The windows of my mother's room were open, in consequence of the unusual warmth of the weather. For the same reason, probably, a neighbouring bee-hive had swarmed, and the new colony, pitching on the window-sill, was making its way into the room when the horrified

nurse shut down the sash. If that well-meaning woman had only abstained from her ill-timed interference, the swarm might have settled on my lips, and I should have been endowed with that mellifluous eloquence which, in this country, leads far more surely than worth, capacity, or honest work, to the highest places in Church and State. But the opportunity was lost, and I have been obliged to content myself through life with saying what I mean in the plainest of plain language, than which, I suppose, there is no habit more ruinous to a man's prospects of advancement.

The fact that he received the name of the doubting apostle was by no means one of those superhuman coincidences in which some naive people see portents. In later years my father used to make humorous play with its appropriateness, but in plain fact he was named after his grandfather, Thomas Huxley. I have not traced the origin of the Henry.

Both parents were of dark complexion, and all the children were dark-haired and dark-eyed. The father was tall, and, I believe, well set-up: a miniature shows him with abundant, brown, curling hair brushed high above a good forehead, giving the effect, so fashionable in 1830, of a high-peaked head. The features are well cut and regular; the nose rather long and inclined to be aquiline; the cheeks well covered; the eyes, under somewhat arched brows, expressive and interesting. Outwardly, there is a certain resemblance traceable between the miniature and a daguerrotype of Huxley at nineteen; but the debt, physical and mental, owed to either parent is thus recorded:—

Physically, I am the son of my mother so completely—even down to peculiar movements of the hands, which made their appearance in me as I reached the age she had when I noticed them—that I can hardly find any trace of my father in myself, except an in-born faculty for drawing, which, unfortunately in my case, has never been cultivated; a hot temper, and that

amount of tenacity of purpose which unfriendly observers sometimes call obstinacy.

My mother was a slender brunette, of an emotional and energetic temperament, and possessed of the most piercing black eyes I ever saw in a woman's head. With no more education than other women of the middle classes in her day, she had an excellent mental capacity. Her most distinguishing characteristic, however, was rapidity of thought. If one ventured to suggest that she had not taken much time to arrive at any conclusion, she would say: "I cannot help it; things flash across me." That peculiarity has been passed on to me in full strength; it has often stood me in good stead; it has sometimes played me sad tricks, and it has always been a danger. But, after all, if my time were to come over again, there is nothing I would less willingly part with than my inheritance of mother-wit.

Restless, talkative, untiring to the day of her death, she was at sixty-six "as active and energetic as a young woman." To her he was devoted.

As a child my love for her was a passion. I have lain awake for hours crying because I had a morbid fear of her death; her approbation was my greatest reward, her displeasure my greatest punishment.

About his childhood, he writes,

I have next to nothing to say. In after years my mother, looking at me almost reproachfully, would sometimes say, "Ah! you were such a pretty boy!" whence I had no difficulty in concluding that I had not fulfilled my early promise in the matter of looks. In fact, I have a distinct recollection of certain curls of which I was vain, and of a conviction that I closely resembled that handsome, courtly gentleman, Sir Herbert Oakley, who was vicar of our parish, and who was as a god to us country folk because he was occasionally visited by the then Prince George of Cam-

bridge. I remember turning my pinafore wrong side forwards in order to represent a surplice, and preaching to my mother's maids in the kitchen as nearly as possible in Sir Herbert's manner one Sunday morning, when the rest of the family were at church. That is the earliest indication of the strong clerical affinities which my friend Mr. Herbert Spencer has always ascribed to me, though I fancy they have, for the most part, remained in a latent state.

He was not a precocious child, nor pushed forward by early instruction. His native talent for drawing, had it been cultivated, might have brought him into the front rank of artists; but on the perverse principle, then common, that training is either useless to native capacity or ruins it, he remained untaught, and his vigorous draughtsmanship, invaluable as it was in his scientific career, never reached its full technical perfection. But the sketches which he delighted to make on his travels reveal the artist's eye, if not his trained hand.

His regular schooling was of the scantiest. For two years, from the age of eight to ten, he was at the Ealing school. It was a semi-public school of the old unreformed type. What did a little boy learn there? The rudiments of Latin, of arithmetic, and divinity may be regarded as certain. Greek is improbable, and, in fact, I think my father had no school foundation to build upon when he took up Greek at the age of fifty-five in order to read in the original precisely what Aristotle had written, and not what he was said to have written, about his dissection of the heart.

For the rest, his experience of such a school, before Dr. Arnold's reforming spirit had made itself felt over the country, is eloquent testimony to the need of it.

Though my way of life [he writes] has made me acquainted with all sorts and conditions of men, from the highest to the lowest, I deliberately affirm that the society I fell into at school was the worst I have ever known. We boys were average lads, with much the same inherent capacity for good and evil as any others; but the people who were set over us cared about

as much for our intellectual and moral welfare as if they were baby-farmers. We were left to the operation of the struggle for existence among ourselves; bullying was the least of the ill practices current among us.

One bright spot in these recollections was the licking of an intolerable bully, a certain wild-cat element in him making up for lack of weight. But, alas for justice, "I—the victor—had a black eye, while he—the vanquished—had none, so that I got into disgrace and he did not." A dozen years later he ran across this lad in Sydney, acting as an ostler, a transported convict who had, moreover, undergone more than one colonial conviction.

This brief school career was ended by the break-up of the Ealing establishment. After Dr. Nicholas's death, his sons tried to carry on the school; but the numbers fell off, and George Huxley, about 1835, returned to his native town of Coventry as manager of the Coventry Savings Bank, while his daughters eked out the slender family resources by keeping school.

Meantime, it does not seem that the boy Tom, as he was generally called, received much regular instruction. On the other hand, he learned a great deal for himself. He had an inquiring mind, and a singularly early turn for metaphysical speculation. He read everything he could lay hands on in his father's library. We catch a glimpse of him at twelve, lighting his candle before dawn, and, with blanket pinned round his shoulders, sitting up in bed to read Hutton's *Geology*. We see him discussing all manner of questions with his parents and friends; and, indeed, his eager and inquiring mind made it possible for him to have friends considerably older than himself. One of these was his brother-in-law, Dr. Cooke of Coventry, who married his sister Ellen in 1839. Through Dr. Cooke he became, as a boy, interested in human anatomy, with results that deeply affected his career for good and for evil.

The extraordinary attraction [he writes] I felt towards the intricacies of living structure proved nearly fatal to me at the outset. I was a mere boy—I think between thirteen and fourteen years of age—when I was taken by some older student friends of mine to the first *post-mortem* examination I ever attended. All my

life I have been most unfortunately sensitive to the disagreeables which attend anatomical pursuits, but on this occasion my curiosity overpowered all other feelings, and I spent two or three hours in gratifying it. I did not cut myself, and none of the ordinary symptoms of dissection-poison supervened; but poisoned I was somehow, and I remember sinking into a strange state of apathy. By way of a last chance, I was sent to the care of some good, kind people, friends of my father's, who lived in a farmhouse in the heart of Warwickshire. I remember staggering from my bed to the window, on the bright spring morning after my arrival, and throwing open the casement. Life seemed to come back on the wings of the breeze, and to this day the faint odour of wood-smoke, like that which floated across the farmyard in the early morning, is as good to me as the "sweet south upon a bed of violets." I soon recovered; but for years I suffered from occasional paroxysms of internal pain, and from that time my constant friend, hypochondriacal dyspepsia, commenced his half-century of co-tenancy of my fleshly tabernacle.

In this life-long recurrence of suffering he was like his great friend and leader, Darwin. Each worked to his utmost under a severe handicap, which, it must be remembered, in Darwin's case, was by far the more constant and more disabling, though, happily, an ample fortune absolved him from the troubles of pecuniary stress.

Years afterwards, one of these "good, kind friends" calls up the picture of "Tom Huxley looking so thin and ill, and pretending to make hay with one hand, while in the other he held a German book."

How did he come thus early to teach himself German, a study which was to have undreamed-of consequences in his future? He learned it so well that, while still a young man, he could read it—rare faculty—almost as swiftly as English; and he was one of the swiftest readers I have known. Thus equipped, he had the ad-

vantage of being one of the few English men of science who made it a practice to follow German research at first hand, and turn its light upon their own work.

The learning of German was one half of the debt he owed to Carlyle, the other being an intense hatred of shams of every sort and kind. He had begun to read the fiery-tongued prophet in his earliest teens, and caught his inspiration at once. *Sartor Resartus* was for many years his Enchiridion (he says), while the translations from the German, the references to German literature and philosophy, fired him to read the originals.

As to other languages, his testimonials in 1842 record that he reads French with facility, and has a fair knowledge of Latin. Thus he took the *Suites à Buffon* with him on the *Rattlesnake* as a reference book in zoology. As to Latin, he was not content with a knowledge of its use in natural science. Beyond the minimum knowledge needful to interpret, or to confer, the "barbarous binomials" of scientific nomenclature, he was led on to read early scientific works published in Latin; and in philosophy, something of Spinoza; and later, massive tomes of the Fathers, whether to barb his exquisite irony in dissecting St. George Mivart's exposition of the orthodox Catholic view of Evolution, or in the course of his studies in Biblical criticism. Of Greek, mention has already been made. He employed his late beginnings of the language not only to follow Aristotle's work as an anatomist, but to aid his studies in Greek philosophy and New Testament criticism, and to enjoy Homer in the original. In middle life, too, he dipped sufficiently into Norwegian and Danish to grapple with some original scientific papers. When he was fifteen, Italian as well as German is set down by him in his list of things to be learnt, though for some time the pressure of preparing for the London matriculation barred the way; and on the voyage of the *Rattlesnake* he spent many hours making out Dante with the aid of a dictionary. No doubt, also, he must have read some Italian poetry with his wife during their engagement and early married days, for she had a fair acquaintance with Italian, as well as equalling his knowledge of German. When he was past sixty and ill-health, cutting short his old activities, had sent him to seek rest and change in Italy, he took up Italian again, and plunged into the authorities on the very interesting prehistoric archæology of Italy.

To return to his early development. There is extant a fragmentary little journal of his, begun when he was fifteen, and kept irregularly for a couple of years. Here the early bent of his mind is clearly revealed; it prefigures the leading characteristics of his mature intellect. He jots down any striking thought or saying he comes across in the course of his reading; he makes practical experiments to test his theories; above all, his insatiable curiosity to find out the "why" and "how" of things makes him speculate on their causes, and discuss with his friends the right and wrong of existing institutions.

This curiosity to make out how things work is common to most healthy boys; to probe deep into the reasoned "why" is rare. It makes the practical mechanic into the man of science. Possessing both these qualities as he did, it is easy to understand his own description of his early ambitions:—

As I grew older, my great desire was to be a mechanical engineer, but the fates were against this; and, while very young, I commenced the study of medicine under a medical brother-in-law. But, though the Institute of Mechanical Engineers would certainly not own me, I am not sure that I have not all along been a sort of mechanical engineer *in partibus infidelium*. I am now occasionally horrified to think how little I ever knew or cared about medicine as the art of healing. The only part of my professional course which really and deeply interested me was physiology, which is the mechanical engineering of living machines; and, notwithstanding that natural science has been my proper business, I am afraid there is very little of the genuine naturalist in me. I never collected anything, and species work was always a burden to me; what I cared for was the architectural and engineering part of the business, the working out the wonderful unity of plan in the thousands and thousands of diverse living constructions, and the modifications of similar apparatuses to serve diverse ends.

One or two typical extracts may be given from the *Journal*, which opens with a quotation from Novalis: "Philosophy can bake no

bread; but it can prove for us God, freedom, and immortality. Which, now, is more practical, Philosophy or Economy?" Later comes a quotation from Lessing, which involved a cardinal principle that he claimed for himself, and demanded of his pupils: accept no authority without verifying it for yourself:—

I hate all people who want to found sects. It is not error, but sects—it is not error, but sectarian error, nay, and even sectarian truth, which causes the unhappiness of mankind.

Electricity interests him specially; among other experiments, while theorizing upon them, he makes a galvanic battery "in view of experiment to get crystallized carbon: got it deposited, but not crystallized."

He is a young Radical in his opposition to anything like injustice, though frankly admitting that youth is not infallible. One of his boyish speculations was as to what would become of things if their qualities were taken away. While on this quest, he got hold of Sir William Hamilton's *Logic*, and read it to such good effect that when, years afterwards, he sat down to the greater philosophers, he found that he already had a clear notion of where the key of metaphysics lay. The following extract from the *Journal* shows that he already had a characteristic point of view:—

Had a long talk with my mother and father about the right to make Dissenters pay church rates, and whether there ought to be any Establishment. I maintain that there ought not in both cases—I wonder what will be my opinion ten years hence? I think now that it is against all laws of justice to force men to support a church with whose opinions they cannot conscientiously agree. The argument that the rate is so small is very fallacious. It is as much a sacrifice of principle to do a little wrong as to do a great one.

His friend, George Anderson May, with whom the boy of fifteen has "a long argument on the nature of the soul and the difference between it and matter," was then a man of six and twenty, in business at Hinckley.

I maintained that it could not be proved that matter is *essentially*, as to its base, different from soul. Mr. M. wittily said soul was the perspiration of matter.

We cannot find the absolute basis of matter; we only know it by its properties; neither know we the soul in any other way. *Cogito ergo sum* is the only thing that we *certainly* know.

Why may not soul and matter be of the same substance (i.e., basis whereon to fix qualities; for we cannot suppose a quality to exist *per se*, it must have a something to qualify), but with different qualities?

Hamilton's analysis of the Absolute, once learned, was never forgotten. It was a philosophic touchstone, understood by the boy, applied by the man. With the Absolute, an entity stripped of perceptible qualities, an "hypostatized negation," he could have no traffic. The Cartesian motto of thought as the essence of existence became another fixed point for him, and his last questioning phrase half suggests the line of reasoning which, as he afterwards put it, asserts that, philosophically speaking, materialism is but spiritualism turned inside out.