

anatomy professors at the University in the year of Sterne's decease.

It would, indeed, be a curious thing, if the information contained in the above-quoted paragraph should really prove to be true; and it would add one more ghastly element to the already

melancholy tale of Sterne's death and burial, if we should ascertain that the body which was deposited in the grave with so small an amount of ceremonial, was not even allowed to rest there, but was handed over to the surgeons after all.

## THE BOUNDARIES OF SCIENCE.

### A DIALOGUE.

*Philocalos. Philalethes.*

*Philoc.* So, Philalethes, it is true that you are a convert to this new theory! You are a believer in a doctrine which makes the struggle of a selfish competition the sole agency in nature—which, taking one of the most unfortunate, if inevitable, results of an old civilization, transfers it to that world where we hoped to find a beauty and order to which civilization has not yet attained! Poets have spoken of the face of nature as serene and tranquil; you paint it scarred by conflict and furrowed by sordid care! You turn the pure stream where we have been accustomed to find the reflection of heaven, into a turbid current where we can perceive nothing but the dark hues of earth!

*Philal.* If I did not happen to know what book you had been reading, my dear Philocalos, I should have some difficulty in guessing your meaning. Not that you can have read much of any book so widely removed from all your subjects of interest.

*Philoc.* That a man feels but slight interest in tracing the ramifications of science is no proof that he may not wish to ascend to the fountain head. I confess, however, that I did not read the whole book,—that I did not master all the details, but I made out quite enough of the scope of each chapter to leave little room for doubt as to the general purport of the whole work. And have I misrepresented it in what I said just now?

*Philal.* That may admit of question; it is not a theory which can be fairly judged from a single point of view. But if I, looking at the theory in a different light, learn from it to regard the strife which unquestionably exists in nature as the fire in which her masterpieces are to be tested, her failures destroyed, will you deny that this is also a fair version of the author's doctrine?

*Philoc.* I should not need to do so in order to justify my horror of such a creed. For, Philalethes, on this hypothesis, selfishness and progress are inseparably linked. Every self-sacrificing impulse, every generous care for the sick or infirm, every pause in the selfish struggle for ascendancy, are so many drags on the wheels of progress; and if that day ever arrives on earth when the love of self shall be swallowed up in wider and deeper love,—then those wheels will be finally arrested. The death of selfishness will be the barrier beyond which the human race will remain for ever stationary.

*Philal.* You overlook considerations which materially interfere with the operation of the principle in regard to man.

*Philoc.* I am astonished at such hesitation in one of your logical mind! What does the theory make of man but a superior vertebrate animal?

*Philal.* Do you not see that a discussion concerning the tools of the builder

affords no legitimate inference as to the plan of the architect?—that an examination of the workshop of nature includes no notice of the models which have been set before her to copy?

*Philoc.* The workshop of nature! Is that the quarter to which we should look for the origin of man?

*Philal.* The very point I am so anxious to impress upon you. I look to the plan of the architect for the origin of a house, not to the tools of the builder.

*Philoc.* Are we then twice removed from our Creator? Is creation so analogous to the laborious efforts of man?

*Philal.* Let me answer you in the words of Bacon: "For as in civil actions  
"he is the greater and deeper politique  
"that can make other men the instru-  
"ments of his will and ends, and yet  
"never acquaint them with his purpose,  
" . . . so is the wisdom of God more  
"admirable when nature intendeth one  
"thing, and Providence draweth forth  
"another, than if He had communicated  
"to particular creatures and motions  
"the characters and impressions of His  
"providence.

*Philoc.* But, tell me, how does your view of the theory admit of the exception which you claim for the case of man?

*Philal.* Because I believe it to be part of the plan of man laid down by the great Architect, that there should be that within him which, holding communion with the supernatural, raises him above the influence of mere natural powers.

*Philoc.* And does not that very fact supply a confutation of the theory? Nature, working by a system of antagonistic influences, produces an agent whose highest glory it is to set those influences at defiance. The typical man—the highest ideal of manhood—acts upon motives not only different from, but utterly opposed to those which have made him what he is. Must there not be some flaw in the premisses from which such a conclusion may be derived?

*Philal.* I see no *reductio ad absurdum*

in your inference. In crossing the barrier which separates matter from spirit, you introduce a new element, to which the former grounds of reasoning will no longer apply.

*Philoc.* But is it true that the theory of natural selection does apply to material creation alone? It professes, at least, to account for instinct; and it must be admitted that instinct and reason blend insensibly into each other. How then is it possible to draw any line which shall cut off man from the influences which have been omnipotent over his ancestors?

*Philal.* My dear Philocalos, I am far from asserting that that objection is unimportant; but I want you to feel that, in making it, you are transplanting the discussion to a region where the author of the hypothesis is not bound to follow you. All that he is bound to do, is to show that his hypothesis supplies an adequate explanation of all facts lying within the science which it professes to explain. For him to adjust it to other views of truth, would be as if the maker of this microscope had endeavoured to contrive such a combination of lenses as should allow of its being used, under certain circumstances, as a telescope. We may rest assured that, in the one case, our knowledge of the stars and the infusoria would suffer equally; and in the other, that we should have a medley of very poor moral philosophy, and very poor natural science.

*Philoc.* Without being prepared with a logical reply to such a vindication, I must confess that kind of argument is always unsatisfactory to me. It seems to me like saying that a certain proposition may be true in one language and not in another; surely, Truth is one harmonious whole.

*Philal.* Your objection is one with which I have the greatest sympathy. No doubt all the lines of Truth converge, but it is at too small an angle, and too vast a distance, for us to be able in all cases to perceive the tendency to unite. Moreover, it is the indispensable requisite of the man of science—not that he should ignore or forget this com-

munity of direction in all the clues of Truth—but that he renounce any attempt at making his own investigations subordinate to the proof of that conclusion.] I do not decide whether such a subject is capable of proof; I only say that, when the student of physical science undertakes it, he is renouncing his own proper study as effectually as the pilot who should attempt to decide on the most favourable market for the goods with which his vessel is freighted. I must repeat in another form what I said just now.

You know it is a law of physiology that, as any animal ascends in the scale of being, all its organs become more and more specialized to their peculiar functions. Thus, the four hands of the monkey are used indifferently as organs of prehension or locomotion, while in man, at the summit of the scale, each function has its proper organ exclusively appropriated to it. Now this fact is the expression of a law which is universal. No machine which is adapted to two purposes will fulfil either of them so perfectly as one which should be constructed solely with a view to that one. No man who combines the professions of a lawyer and a physician will make so able a lawyer, so skilful a physician, as one who should have devoted his life to the study of either profession. And science, believe me, is not less exacting than physic or law. The researches of the man of science must not be cramped by fears of trespassing on the entangled boundary of a neighbouring domain. If he allow his course to be broken by claims on behalf of a superior authority to exclusive occupancy of the ground, not only will the powers be distracted which, when in perfect harmony, are not more than adequate to the work before them—not only will his step be feeble and uncertain on his own special province, but his conviction of the harmony of the creation will be destroyed; the suspicion, fatal to all science, will be forced upon him, that truth can ever be inconsistent with truth.

*Philoc.* Of course, truth can never be inconsistent with truth, but a partial

view of truth may be inconsistent with the whole. The statement of one fact, apart from others, may give as false an impression as the sense of sight might give of the external world, if it could not be corrected by that of touch.

*Philal.* But you do not, therefore, attempt to make the eye the medium of touch. You do not suppose there can be such a thing as an excess of sight. The impressions of the external world are truest when all the senses are in their fullest exercise, and, even if some are absent or feeble, you gain nothing by diminishing the rest. I do not cease to see that round table oblong when I look at it obliquely, by becoming short-sighted.

*Philoc.* What I cannot agree to, is that parcelling-out of truth into divisions, between which no communication is possible; least of all, when the instance is one which concerns the nature of man. That any ingenuous mind should deny an antagonism between his spiritual nature and any hypothesis which ignores his distinct creation—this I cannot readily believe.

*Philal.* There is an antagonism, I believe, in *all* the views of man's spiritual and physical nature. Let me illustrate what I mean by a fact of my own experience.

I have often thought, as I stood beside a death-bed—still more, when I was consulted by a patient for whom I foresaw that death-bed within the space of a few months—how strange is the opposition between the spiritual and bodily life of man. I see a fellow-creature on the point of being submitted to the most momentous change, but wholly ignorant of the brief period still allowed for preparation. To me, the contracted limits of the course by which my patient is separated from the great ordeal is matter of absolute certainty. And yet that knowledge, which for myself I should desire above many added years of life, I must not only *not* communicate to the one so deeply interested, but (within the limit of actual deception) studiously withhold. I have undertaken to give advice with

reference to bodily health, and I feel, as I suppose you would feel in my place, no hesitation as to the neglect of any consideration, however superior in intrinsic importance, calculated to interfere with the object concerning which my advice is sought.

*Philoc.* No doubt you are called in as a physician, and you must not, as an honest man, act as a priest.

*Philal.* You have expressed in a few words the substance of what I have been urging all along. You cannot, then, ask of the physician, in a larger sense, to act otherwise than as a physician?

*Philoc.* If, only, he does not forget that the priest has his appointed part also!

*Philal.* There is the danger of my profession, and still more that of my fellow-students. I do not underrate it. But, just as I am certain that, in a world of order and law, it must be better for the whole being of man that one class should attend exclusively to his physical sufferings, so I believe that it is advantageous to truth, that one set of thinkers should attend exclusively to physical truths.

*Philoc.* Oh, Philalethes, I cannot answer such arguments otherwise than by the protest of my whole nature! If the study of the creation is to lead us away from the Creator; if the observation of law obliterates the view of the Lawgiver; if "*ex majore lumine naturæ et reseratione viarum sensûs aliquid incredulitatis et noctis animis nostris erga divina mysteria obortatur*;" then, I can only say, the sooner that study is abandoned, the sooner that path is closed, the better.

*Philal.* A danger which I and my fellow-students cannot contemplate too anxiously! But for you, and men of your tastes and interests, it is needful to look to the other side of the question. You, who look at nature simply for the beauty of nature, have you ever reflected what a different world you would inhabit but for the labours of the man of science? I am not, of course, speaking of material advantage. But take the

oldest and most complete of the sciences—astronomy, and compare the objects which every night presents to our eyes, as seen with and without its illumination. What were they to the eye of the wisest man of antiquity? Read the description of the eight whorls of the distaff of the universe, in the Republic of Plato, and remember that where he saw this confusion of concentric whorls and unknown impulses, you explore depths of space the remoteness of which thought refuses to conceive, and find those abysses filled with innumerable worlds, moved by the same power which detaches the withered leaf from its stalk, which moulds the faintest streak of vapour that we can scarcely distinguish against the sky. That he *needed* no such symbol as the law of gravitation to embody a conviction of *one* ruling power which

"Spreads undivided, operates unspent"—

I readily believe; but, having that inward conviction, do we gain nothing by the outward type? In one word, does it make no difference whether we are shackled by a delusion of man, or in contact with an idea of God? Now this Divine idea is to you, and to men far less scientific than you, a material of thought, a belief which there is no more choice about receiving than there is about breathing oxygen. What was confused and indistinct to the finest genius of antiquity is orderly and harmonious to the most ordinary mind of to-day. I do not say that the deep significance of the law which is thus revealed to us is appreciated by every one who even reflects upon it; but I do assert that no mind can receive so grand an idea, even partially, without being in some degree enlarged by it, even if they do not see in it, what it seems to me to contain, a type and prophecy of the obedience which man shall yield to his Creator when harmony with the will of the Creator shall become the triumphant motive of his whole being, and law shall reign as certainly over every movement of his spirit, as over the orbits of the planets.

L

*Philoc.* But that idea is no offspring of science, Philalethes.

*Philal.* Not the idea, but the symbol in which it is embodied.

*Philoc.* But it is exactly that habit of mind, that readiness to find the spiritual in the material, that seems to me wanting in scientific men. They look at, not through, the window.

*Philal.* The window is their work. What lies beyond is without the boundaries of science. The tendency of early science is to forget those boundaries; the science of our day, in guarding perhaps too anxiously against this error, refuses to take cognizance of what lies beyond them. I anticipate for the maturity of thought a combination of what is right in both these tendencies, as I hope in my own age, to return to what was most precious in the feelings of the child, without losing anything of what was gained by the experience of the man. Meantime, do not forget that our debt is not small to those scientific men who possess least of this spirit—who would regard any inclination to look

upon the material world as the expression and symbol of the spiritual, as mere idle dreaming. You owe them this, that, while they spend laborious years in the painful elaboration of some new view of nature, they are translating for you a symbol, in which you may be most certain no conception of their own has mingled. If the result of their operations contain an element so carefully eliminated from the crucible in which the fusion was made, we may be perfectly certain that that element was a constituent part of the original materials.

*Philoc.* But tell me how you would reconcile with other and more important views of truth any theory which makes man the product of the lower tendencies of the animal world? Suppose it granted that the author of such a hypothesis is not bound to follow me to that ground, still, as I know *you* must be ready to take that point of view, do you not refuse to accompany me there.

*Philal.* On a future occasion I shall be very happy to do so.

## TOM BROWN AT OXFORD.

BY THE AUTHOR OF "TOM BROWN'S SCHOOL-DAYS."

### CHAPTER XIX.

#### A PROMISE OF FAIRER WEATHER.

ALL dwellers in and about London are, alas, too well acquainted with that never-to-be-enough-hated change which we have to undergo once at least in every spring. As each succeeding winter wears away, the same thing happens to us.

For some time we do not trust the fair lengthening days, and cannot believe that the dirty pair of sparrows who live opposite our window are really making love and going to build, notwithstanding all their twittering. But morning after morning rises fresh and gentle; there is no longer any vice in the air; we drop our over-coats; we rejoice in the green

shoots which the privet hedge is making in the square garden, and hail the returning tender-pointed leaves of the plane trees as friends; we go out of our way to walk through Covent Garden market to see the ever-brightening show of flowers from the happy country.

This state of things goes on sometimes for a few days only, sometimes for weeks, till we make sure that we are safe for this spring at any rate. Don't we wish we may get it! Sooner or later, but sure—sure as Christmas bills, or the income-tax, or anything, if there be anything, surer than these—comes the morning when we are suddenly conscious as soon as we rise that there is something the matter. We do not feel comfortable in our clothes; nothing tastes quite as it