

III—THE PROGRESS OF PHILOSOPHY.

By JAMES WARD.

[Prof. Campbell Fraser's article on "Philosophical Development" in the last number of *MIND* reproduced the substance of an Address which he delivered to the Glasgow Philosophical Society at the beginning of the winter session, 1888-9. Here follows, without alteration, the closing Address of that session.—ED.]

THE words of Schiller which the Glasgow Philosophical Society has taken as a motto—

"Welche wohl bleibt von allen Philosophien? Ich weiss nicht.
Aber die Philosophie, hoff'ich, soll ewig bleiben"—

might, at first blush, be regarded as a confession at once of the hopelessness of the attainment and of the worth of the pursuit of philosophical knowledge. Hamilton, as we all know, held substantially this opinion, and supported it in his usual style with a wealth of illustration drawn from all quarters. In his first lecture on Metaphysics he says:—"The last worst calamity that could befall man, as he is at present constituted, would be that full and final possession of speculative truth, which he now vainly anticipates as the consummation of his intellectual happiness . . . and the man who first declared that he was not a σοφός, or possessor, but a φιλόσοφος, or seeker of truth, at once enounced the true end of human speculation and embodied it in a significant name". Now, I do not propose at present to controvert this position either wholly or in part, but merely to suggest that in whatever respects it is true of philosophy it is true of the several sciences. We might just as well ask, Which of all the physics, or which of all the chemistries remains? as ask, Which of all the philosophies remains? No exposition of a science, no matter what, that is a century old, would be considered adequate to-day; and the science, absolutely regarded, is as much as ever an ideal. We talk of the sciences as if they were completed wholes, whereas all that exists in fact is but a collection of approximations—partial, inchoate, imperfect. Archimedes, Galileo, Newton, are immortal names in the history of physics, but Newton's *Principia* is no more the science of physics than Euclid's *Elements* is the science of geometry. The progress of all the sciences shows the same essential

features: isolated truths come first, and principles last of all; working hypotheses, like rudimentary organs or temporary scaffolding, lead to the establishment of laws by which they are refuted and superseded, or they themselves are confirmed as permanent constituents of knowledge by a more or less gradual process of verification; resemblances undetected at first relate the many with the one; closer scrutiny discloses composition and complexity in what had long been regarded as without parts and without structure; and even that thickest of all veils—familiarity—is pushed aside, so that boundless fields of inquiry stand revealed where never a question had been asked before. With many differences in detail, this and the like is what we find, in the main, in every department of knowledge; and it seems fairly obvious that it must be so, since Mind is one essential factor in knowledge, and the only one that is the same in all. What I would venture to maintain, then, is that philosophy, as regards its history and development, does not differ *in genere* from the body of the sciences. In intent it is as legitimate as they are, and, allowing for differences of subject-matter, it has advanced about as much. Just a word on each of these points.

Without wasting time in any discussion about the precise definition of philosophy, it ought to be allowed to us that the problems of philosophy, whether soluble or not, at least start from and arise out of knowledge that we already have; and more than that cannot be claimed for the problems of any science whatever. Perhaps the true character of philosophy is nowhere more conspicuous than at its very dawn, when we see it, as Ferrier has remarked, in immediate contrast with the mythology it supplanted. The one, directed solely by poetic fancy, provided a deity for every hill and stream, for every wind that blew, and every star that shone; the other, possessed by the idea that there is an *ἀρχή* or first principle underlying the endless variety that appears, though it failed utterly to find what it sought, nevertheless “inaugurated a new epoch, and gave birth to science among men”. The problems of philosophy and science were at that time merged in one general attempt to generalise and simplify the endless particulars and bewildering diversities of sensible experience. In these later days, when many sciences in succession have been differentiated from that nebulous beginning, though the central problem still remains, it is now separated by a vast system of orderly knowledge and far-reaching law from the concrete manifold of sense. And since it is assumed that all we

know is to be found in this imposing circle of sciences, philosophy is once again brought into comparison with the mythical; but this time only to be identified with it, when proud *savants*, forgetful of their sires, ring the changes of their despite, as they consign first the mythical, then the metaphysical, to a common oblivion. Both, they affect to believe, are the creatures of imagination, with this only difference: mythology is the inflorescence or rancy, metaphysics but the cobwebs of the brain—that sort of mouldy, cryptogamic inflorescence that a fungus will produce. For all such conceited *persiflage* there is not, I believe—at least if we look at the history of knowledge broadly there is not—one iota of justification. We cannot, of course, deny that philosophers did often lose themselves in a world of dreams, abstracting when, as Bacon says, they had better have analysed, and concerned about the phantoms of the cave or the schools when they should have essayed to interpret nature by the dry light of reason. But all this, rightly regarded, was but a mistake of method—a mistake that vitiated all investigations alike—being, in fact, almost, if not altogether, inevitable. For just as childhood precedes manhood, so preconception, dogmatism, deference for authority and tradition come before the cautious, critical, all-exacting spirit that yields to evidence and nothing but evidence, owns no bias and no fears, and bids even reason to justify herself and disclose her limits.

Listening to contemporary detractors of philosophy, one might suppose that the sciences had accomplished their own emancipation, while philosophy alone remains still befooled by empty but imposing conceits. The truth is rather that all the emancipation the sciences can claim was wrought for them by philosophy; wrought not by those who were the representatives of the modern *savant*, but by men who in these days would be stigmatised as “genuine metaphysicians”. When the history of modern thought lies far enough in the past to be comprehended as a whole and in its true proportions, it will be seen, perhaps, more truly than we can see it now, that what might be called the dogmatic stage ceased and the critical began at the same time both for science and for philosophy; it will be seen, too, that the men who inaugurated the change were really philosophers, *i.e.*, men of reflection, though they were often scientists or men of research as well. Galileo (in 1610), at the age of forty-six, said that he had spent more years on philosophy than months on mathematics. Descartes’ account of himself (in 1637),

when he was only a few years younger, shows that philosophy had a similar preponderance with him. By these two men, it is allowed, the foundations of modern exact science were laid. Nor can it be said that they were great physicists spite of their early philosophy, as one might perhaps say they were great thinkers spite of their early scholastic training, which both alike soon outgrew and cast aside. Dühring, in his *Critical History of Mechanical Principles*, shows at some length that genuine speculation was throughout the prompting and informing inspiration in the ascertainment of these principles. In Galileo and Descartes, certainly, we find no traces of the over-vaunted Baconian method : it was from ideas, not from facts, that their insight came. Instruments and industry were all very well, as Lagrange has said, for the discovery of Jupiter's satellites, the phases of Venus, the solar spots, and such like ; but to analyse and unravel the primary laws of nature called for genius of a philosophic mould. It shows nothing but ignorance, though unhappily ignorance that is very widely spread, to suppose that, whereas modern science is a new birth, separated by a catastrophe from the astrology, alchemy and magic of the dark ages, modern philosophy, having learnt nothing and forgotten nothing, is but the survival of Scholasticism. Flippant references to angels dancing on the point of a pin, or to chimæras buzzing in a vacuum and fed on second intentions, are still considered not an unfair parody of the "genuine metaphysician's" inquiries. It would be easy to retaliate. Anyone who would be at the trouble to search the Royal Society's *Transactions* for fifty years back and more would find as much arrant nonsense as, and more bad reasoning than, he would easily discover in as many pages of the old Schoolmen. Modern philosophy is quite as truly a new birth as modern science ; and the founders of modern science in breaking with the old philosophy did not abandon philosophy altogether. On the contrary, they founded the new science on a new philosophy, and but for this new philosophy the new science would have been a very feeble thing and its future would have been most precarious and uncertain.

It has to be remembered that, although—wherever the human race has been sufficiently advanced—the philosophic impulse has invariably been *one* factor in human life, it has never been a factor independent of all others. As I have said, the *quæsitæ* of philosophy have always been determined by what were regarded as *data* at the time. Thus the business of philosophy being primarily formative, any

defects in the empirical matter supplied must have told disadvantageously on the system constructed. Moreover, philosophy has to take account of much besides the current *knowledge* of the time—ethical and religious ideas fall equally within its ken. And there is still another point to note.

Looked at broadly, the history of philosophy may be regarded, to borrow an idea from the late Prof. Harms, as philosophy experimenting. The experiments were very different in kind from those of physics and chemistry. Still they are entitled to be called experiments, in so far as they were so many mental manipulations of the theoretical and practical stuff of life with a view to the discovery of its hidden springs and inner unity. In these experiments we observe a twofold procedure, sometimes one, sometimes the other, being the more prominent. At one time, that is to say, philosophy was mainly intent on organising. At another, the failure of such attempts led to a new scrutiny of the material to be organised ; in a word, constructiveness yielded to scepticism or criticism. The longest and the dullest period in the whole history is that preceding our own—a Sahara of 1000 years, which Hegel advises us to traverse with seven-league boots. In this period, say, from the 6th century to the 16th, a powerful Church, the sole depository of knowledge, was bent on constructing out of the traditions of the Greek schools and the dogmas of the Christian faith one harmonious and rational system. The very endeavour is itself a most impressive proof that the philosophic spirit once there cannot be eradicated, and cannot be smothered. Under any circumstances, there must have been much that was transitory and provisional in the philosophy of such a time ; but, as it was, there seems literally nothing of all the vast fabric that has remained. Yet there was progress—the only progress possible with such material. For one thing, the formal apparatus of thought was enormously improved in “precision and analytic subtlety”. It is noteworthy that J. S. Mill quotes the testimony of Condorcet to this contribution of the Schoolmen to the progress of good philosophy as a fitting motto for the opening of his *Logic* ; and it is perhaps not generally remembered that Mill himself, disgusted with the superficiality of Aldrich, applied himself instead to a careful study of scholastic logic. But to the Schoolmen we are indebted for progress in another respect. It was they who began the struggle for the emancipation of reason ; at first, more or less peaceably under cover of the doctrine that there are two kinds of truth—book-keeping by double entry, as it has been profanely called—a doctrine that could hardly

stagger theologians went to talk of a sevenfold interpretation of Holy Writ. The attack on authority thus covertly begun led on, of course, to the open rupture which ushers in the modern period.

But neither the logical apparatus of the Schoolmen nor the emancipation of reason can be regarded as properly parts of philosophy. However vitally they concern it, they are still but circumstances outside it; so that, as regards the actual succession of philosophies, there is nothing between the ancient period and the modern. But what we now call science, as distinct from philosophy, was, if anything, in a worse plight. The historians of science do not forget this. Thus Bacon refused to take account of more than six out of the twenty-five centuries he reckoned from the dawn of history as either *scientiarum feraces earumve proventui utiles*. Again, Whewell's name for the middle ages is the stationary period. When philosophy is talked of, this sterile waste is most unfairly included with the rest. In fact, what hindered the advance of knowledge in one direction hindered it in all; and so soon as freedom of thought and inquiry was achieved, speculation and positive science moved on apace.

This brings me at length to the second of the two points mentioned just now, *viz.*, that, allowing for differences of subject-matter, the advance of philosophy is quite comparable with that of science. Of course, anything like direct comparison is impossible, just because of this difference of subject-matter. Who can say what philosophical truth is to be set off as equal in importance with the law of gravity, or how many scientific theories can outweigh Kant's formulation or solution of the question, How are synthetic propositions *a priori* intelligible? In these days of universal examinations, no doubt still stranger comparisons are made: when, *e.g.*, A, who writes a sonnet, is adjudged equally deserving of a fellowship with B, who has ascertained all the primes between 19,000,000 and 20,000,000, or with C, who has discovered that in the tadpole's economy there is a special class of cells for the absorption of the tail as soon as that juvenile appendage is done with. But in all these cases what we really compare is the ability of the worker: and we assume that the best work in one department is equal to the best in another; and, generally, that excellence of about equal rarity is of about equal value. When in this fashion we compare philosophers with other men, we have nothing to fear; and, fortunately, in almost every case a circumstance comes to our aid, which perplexed examiners

always hail with especial delight: the best philosophers were what we in Cambridge call "double firsts". Leaving aside Plato and Aristotle, and confining our notice to modern times, when philosophy is regarded as a distinct pursuit (so to say, as a profession), we have, along one line, Bacon, Locke, Berkeley, Hume; along another, Descartes, Leibniz and Kant,—all unmistakeable "double firsts". Everyone of these men would remain highly distinguished on the score of literature, science or politics, if all their philosophical work were counted as nothing. But what we have now to estimate is not the men, but their work; and the question is, whether the men of philosophy have advanced, as the men of science have; or whether they are only marking time on the old ground, and are now left far behind.

What the truth is in this respect might perhaps be effectively realised if we were to imagine one of those old sages from Miletus—or even a thinker so recent and of such abiding influence as Descartes—to come to life again, and hear all that has been done in science and in philosophy since his day. He would be told that all the varied forces of nature are but various modes of transformation of an energy that is changed in form continually, but never destroyed; that all the so-called elements furnish evidence that they also are but modes of one primal stuff—inert, impenetrable and indestructible; that, in an equation involving the three fundamental units of time, space and mass, a complete account could be given of all that really happens in any material system, large or small, as it changes from one given configuration to another; that life, *for the spectator*, is ultimately resolvable, without residuum, into such a series of physical changes or reflex actions; and that mind, for the spectator, is in like manner ultimately resolvable into life. The Ionian philosopher would probably be a good deal less impressed than we should expect. The sublime generalisations, the splendid analyses of modern physics, would seem only to bring us back again to where he was in the sixth century B.C. Then it was the simplicity of ignorance; now it is the simplicity of knowledge. The countless phenomena carefully ascertained by thousands of observers and experimenters, which might have defied all attempts at system, are no obstacle after all: there is a principle underneath phenomena, and all change is according to law. The naturalness of this result, so to say, would prevent astonishment in one who knew nothing of all the inductive methods, experimental devices, elaborate instru-

ments and tedious calculations by which so very obvious and necessary a truth had been empirically won. *Artis est celare artem*. The master-key is, to look at, the simplest key of all, and is most a wonder to him who has made it Similarly here.

As for Descartes, he, no doubt, would fully appreciate the triumphs of modern science, and the narrative would fill him with pride. Did I not say, he would urge :—Grant me extended substance and motion, and I will start afresh, and reconstruct the world? He had not hesitated to extend his mechanical theory to brutes, and even to man—so far as sense and imagination are concerned. On every side, he would see only the substantial confirmation and consummation of his own views. Thus, neither for the father of ancient philosophy nor for the father of modern would there be anything altogether unfamiliar in a summary of the present state of science : they would not, as is sometimes supposed, be comparable (let us say) to a couple of trilobites of different silurian eras reappearing in a cretaceous sea. They would see that knowledge had advanced, but the standpoint of exposition would be the same.

But, in turning to philosophy, the situation would be quite otherwise. The ancient who would readily take in "the recent advances of physical science" would probably have seen in these all the philosophy for which he felt a need : at any rate they would follow on, and fill out the formal outline of knowledge he had himself conceived. But in the philosophy of these days he would find previous questions raised, of which he had never dreamed. To form any idea of these he would have to learn to regard knowledge itself as a problem, and to surrender the very *δὸς ποῦ στῶ* of all phenomenal achievement for analysis and conscious reconstruction. He would need to see that it is not enough to understand the world as it is given, to organise and unify experience, but that this systematic unity must be itself understood. Like some fabled artificer who, as he polishes his rough silver slab, finds the dull and opaque turn bright and translucent, till at length he discovers himself reflected in it and sees beyond and through his work his own form revealed, the Ionian thinker might surmise that the perfecting of the objective hemisphere of knowledge had revealed the subjective, making it possible to test the accuracy of the external by its perfect reflexion of the internal, or to examine the internal thus projected and made large. This would be to him a most impressive advance.

To Descartes *redivivus* the changed face of philosophy would

seem less strange and more intelligible; but the change would perhaps strike him more, and would certainly please him less, than the changes in science. *He*, of course, would fully understand the problem of knowledge, and might see at once that his own solution had been in part false, in part superficial. His sole criterion—*logical* clearness and distinctness—he would see ravel out the whole tissue of knowledge into the meaningless identity A is A, and end in the *reductio ad absurdum* of the Wolffian philosophy, poised like an inverted pyramid on the principle of contradiction—only stable, because it is empty and bound to topple over in search of a base the moment it receives the smallest real content. The distinction of pure intuition and pure understanding (of which he had had an inkling, but which, as alien to the leading idea of his own system, had remained only an unfruitful excrescence, atrophied and ugly), he would see developed by Kant into the cardinal doctrine of the two stems of human knowledge—whereby an escape was possible both from the empty formality of his own rationalistic successors and the blind scepticism of their empirical opponents. He would realise that there is more in geometry than clear thinking, and see that a philosophy wrought out *more geometrico* is for ever an impossibility: since geometry must rest on intuition (*i.e.*, spatial perception), and philosophy start solely from the analysis of notions. It is true, I should say by the way, that Descartes only attempted the treatment of philosophy according to the geometrical method as an experiment on the suggestion of his friend, Mersenne, and was careful to point out that, “in so far as that method is synthetic, it is not so applicable to metaphysical truths as to the elements of geometry which have a relation to the senses”. Still this only amounts to the inkling I spoke of just now: Descartes did *try*, and was afterwards not unsatisfied with the result, leaving it as a suggestion to be developed by Spinoza, who represents the inevitable outcome of one aspect, at least, of Cartesianism. Besides the recognition of two factors in knowledge, which, in his imperfect analysis, he had almost overlooked, Descartes would perforce acknowledge advance as regards another point likewise hidden from him by his geometric manner—I refer to the necessity of the conceptions of Cause and End (or Purpose) to give unity to experience. Geometry knows nothing of experience, and nothing, therefore, of cause or process in any guise. What Spinoza did completely, Descartes had almost done, *i.e.*, identified cause with reason, and rejected final causes altogether.

Again, even if we put the most favourable interpretation possible on his doctrine of innate ideas, it is still only an assumption that cuts the knot: it does not make necessary and universal knowledge *intelligible*, and a necessity that is not intelligible is only a contingency after all. In a word, his doctrine of innate ideas is only a sort of a preformation-system, to use Kant's phrase. As Reid put it: "The power of judging in self-evident propositions may be compared to the power of swallowing our food. It is purely natural." We do it, just as "dogs delight to bark and bite, for God hath made [us] so". This is better, certainly, than the *generatio æquivoca* of Mr. Herbert Spencer's book-plate, for it does recognise that knowledge cannot be explained out of the perpetual stimulations of sense, any more than a chunk of wood can be "licked into shape" as a top, and made to spin, by continually whipping it. Yes, it recognises the problem certainly, but it does not solve it. Descartes would have the less difficulty in acknowledging Kant as the Copernicus of philosophy, because everyone would admit that a psychological solution was the one naturally to be attempted first; and because, further, there was not in his day—what, in fact, he had largely contributed to produce—a body of natural science which could prompt to a careful reflection on knowledge as a product, and make a transcendental logic possible. In Descartes' time, the only science there *was* was mathematics; and this, as we have seen, would lead away from any attempt to frame a theory of experience in the Kantian sense.

This second mention of the philosopher's tendency, one might say, his function to set out by reflecting on the existing body of knowledge, suggests another line of remark concerning the advance of philosophy as compared with the advance of science. If we might illustrate the advance of knowledge as a whole by the figure of a clock, then science might be called the minute-hand, and philosophy the hour-hand, of this clock. They are both really connected and moving in the same direction; and, though their rates of movement differ, this is compensated by a difference in the significance of their motion: one stage onwards for philosophy means a whole cycle of scientific progress. Now, that philosophy is never much behind we may see in another way, and that is by taking note of the little excursions into the groves of Academe in which men of science occasionally indulge. There is altogether quite a literature of this sort—a good deal of it in British Association addresses and the like: in that and other ways men of such eminence as

Huxley, Tyndall, Cayley, and I must not forget Prof. Tait,¹ with Helmholtz, Du Bois Reymond, Claude Bernard, and many others abroad, have discussed various marginal questions on the confines between their special subject and philosophy. I take up the first of these festive prelections that comes to my hand: it is a good specimen of the class, and will sufficiently illustrate what I mean. It is an address by Helmholtz, delivered in celebration of the founding of the Berlin University, and deals with *Die Thatsachen in der Wahrnehmung*. Let me quote one passage from the summing up:—"The causal law is, in reality, a law given *a priori*, a transcendental law. To prove it from experience is impossible; for experience cannot advance a step, as we have seen, without employing inductive reasoning, that is to say, without the causal law. Moreover, from what we have already experienced—even if we could certainly say that everything observed so far has happened according to law—we could only inductively infer, *i.e.*, by assuming the causal law, that the causal law would be valid in the future also." After a little declamation and a verse or two from Goethe, Helmholtz goes on:—"In what to me has always seemed the most essential advance in Kant's philosophy, we remain still at the level of his system. In this wise I have frequently in my previous works taken occasion to emphasise the agreement of the newer sense-physiology with the teaching of Kant, but without, of course, intending to swear by the *verba magistri* in every detail." The whole address, in short, is little more

¹ One instance of the spirit of this famous triton among the metaphysicians, this seer of the Unseen Universe, may perhaps be allowed as a note. In his excellent treatise, *The Properties of Matter*, there is a chapter on Time and Space that opens thus:—"We begin with an extract from Kant, who, as mathematician and physicist, has a claim on the attention of the physical student of a different order from that possessed by the *mere* metaphysicians". Here follows about half a paragraph from Sec. 7 of the 'Transcendental Æsthetic' in which Kant is endeavouring to clinch his epistemological argument as regards mathematics. The "therefore" (*demnach*) of the opening sentence is however omitted, and without further word or comment Prof. Tait proceeds:—"On matters like these it is vain to attempt to dogmatise. Every reader must endeavour to use his reason, as he best can, for the *separation of the truth from the metaphysics* in the above characteristic passage." On reading this, one wonders (1) whether Prof. Tait has any sense of humour; (2) what the residuum of truth is when the metaphysics is winnowed or washed away from this "characteristic passage"; and (3) why the physical student is called upon to exercise his reason upon it without a hint of the premisses to which it is little more than a conclusion!

than Kant assimilated and turned into Helmholtz. This class of literature bristles with references and choice quotations for philosophers of "our present level," to use Helmholtz's phrase. But if philosophy has not advanced, how comes it that scientific men, when they feel the deeper thirst, find their well of waters only in these latest springs? And how is it, when they want to blaspheme, that they fall back either on the crudities of some earlier philosophers or on the extravagances of Hegel or Schelling?

But now, although a dispassionate consideration might soon satisfy any open-minded inquirer that philosophy does move on, there are two or three reasons why it seems to have accomplished very much less than it really has. First, all unsolved and perhaps insoluble problems of any generality fall to the province of philosophy. Some of them go back to that nebulous beginning of all knowledge from which, as I have suggested, the sciences, like planets, have separated and condensed into definite form, and round which they still revolve. All the ultimate questions; all the antinomies, theoretical and practical; the relations of Thought to Being, of the Finite to the Infinite, the One to the Many; the crowd of unanalysed conceptions and uncriticised assumptions of everyday thought and conduct—these all belong to philosophy. It is something even to put them in order, reduce their number, show that some questions are at bottom absurd, and not only cannot be answered but need never be asked; to determine the definite issues within which the solution must lie, and so forth. But even, were all this done, the ultimate difficulties would still remain. Complete knowledge is an ideal; if we regard it as attainable it is infinitely far off. Now, when we boast of the advance of science, we measure the distance we have come, which is finite, so that future advances are comparable with it. But when we despair of philosophy we think of the distance we have to go, which is infinite, and must always remain so, unless, indeed, our rate of advance itself becomes infinite; that is, unless intellectual discursion should some day give place to intellectual intuition.

Another reason why philosophy is apt to appear practically stationary is that, as already hinted, any ground it does win from the void and shapeless infinite is ceded sooner or later to science; or if no science already exists to which it could be logically assigned, then a fresh science is constituted for the purpose. In this way, mainly, Logic and Psychology have arisen, and by such accessions from philosophy they are from time to time extended. And in this

way, too, Epistemology, or the science of knowledge generally, has arisen, and, as I venture, spite of the heresy, to think, has attained a large measure of independence. Just as most of the old Natural Philosophy has become the Natural Sciences, so much of the old Moral Philosophy has become the Moral Sciences. Philosophy proper still remains as the 'leader' or main growing-point of the whole tree of knowledge, and so regarded seems as inchoate and nascent as in the days of Thales or Pythagoras.

But now, in one respect at any rate, I think, we are bound to admit that philosophy in the stricter sense might have made more progress than it has. Perhaps it is an inherent infirmity, perhaps it is essential strength; at any rate it is true of most philosophers that they attempt everything. *Aut Cæsar aut nullus* is the philosopher's legend. In this spirit he sets to work himself: in this spirit he judges most of his predecessors. No doubt eclecticism in philosophy is the feeblest thing of all: rhapsodies and centos are absolute absurdities here. But it is one thing to take pieces out of different speculative systems: it is quite another to recognise and formulate a truth that has been found out before. A comparison of a History of Philosophy such as that of Erdmann or Zeller with such a History of Sciences as Whewell's or Dühring's would illustrate what I mean. In the history of science we observe continually that the propounder of a wrong theory has nevertheless ascertained some important law; as Newton, for example, ascertained the laws of the refractive dispersion of light, although his corpuscular theory as to the nature of light itself is false and has been overthrown. The law is remembered: the theory is forgotten. Now, in philosophy, as it seems to me, there are similar instances; but here it is the fashion, as the Germans say, to swill out the child along with the bath (*das Kind mit dem Bade ausschütten*). Locke and Hume, we are told, were sensationalists; Descartes and Leibniz were rationalists; and the insufficiency of both these theories of knowledge being made apparent, the only interest of the historian is to treat them as 'moments' in the general development of philosophy. It is not held to be necessary definitely to single out and emphasise the particular truths enounced by thinkers whose speculative standpoint has been superseded. The Dualism of Descartes and the Occasionalism to which it led; the problems of Substance and Cause, as propounded by Locke and Hume respectively; Hume's resolution of all the objects of human inquiry into two kinds—to wit, Relations of Ideas and Matters of Fact;

Leibniz's principles of Sufficient Reason and of Continuity,—these may serve as instances comparable in importance with the special laws of nature which the historians of science record. Now I would make bold to maintain that philosophy should have its *monumenta rerum gestarum*: its history should not give the impression of a series of failures—each thinker in succession being handled in accordance with the maxim, *Falsus in uno, falsus in omnibus*. Science treated after this fashion would scarcely fare better: but it never is so treated. The positive results, be they large or small, isolated laws or wide-reaching principles, are what the historian of science puts foremost. And whether it would serve all the purposes of a history of philosophy or not, something of the same kind is at least a desideratum there.

But anyone who should attempt to supply this want would be at once confronted with a difficulty; though the difficulty would be the amplest justification of his enterprise. He would find the same thing, essentially, said over and over again with accidental differences of statement, due merely to its place and purpose in the speculation of each particular thinker. In science, when a truth is made out it is definitely formulated and receives a name; there is Snell's Law, Boyle's Law, Avogadro's Law, Ballot's Law, and so forth. But in the whole region of philosophy, with the partial exception of Logic, there seem to be no rights and no rule. Philosophy has no nomenclature and no terminology. Every giant and every pigmy states and misstates and restates much as he wills: even babes and sucklings rush abroad brandishing the Infinite and the Absolute with infinite ignorance and absolute conceit. If there is anything fixable, why do we not fix it? If any of our conceptions admit of definition, why are they not defined? Such *axiomata media* of philosophy might gain or lose in comparative importance as time went on; but that is true equally of science, which still insists on precision as far as it goes. It is no uncommon thing—it is rather the rule—to find philosophers disclaiming any gradual completion of philosophy: they intend nothing short of *das All auf einem Male*. Thus not only the conceited Descartes concludes his *Principia* with the statement "that there is no phenomenon of nature whose explanation has been omitted in this treatise," but even "that most modest and retiring of mortals," dear old Immanuel Kant, while characterising philosophy on the lines of Descartes as "dogmatic swill" (*dogmatische Gewäsche*), is still persuaded that metaphysics, which on his view is the one science that can confidently

reckon on permanence and completeness, has attained its goal in the *Critique of the Pure Reason*. Of this much he assures us at the end of his *Prolegomena*, and in the preface to the *Metaphysical Foundations of the Natural Sciences* he again expresses the belief that this absolute completeness of metaphysics generally has enabled him to exhaust the special metaphysics of the material world. Of the still greater extravagance of those who came after him, I forbear to speak. Alas! the best of men are but men at the best. It is not given to the human intellect ever to soar: it can only climb. There are wide differences between science and philosophy, of course; but the truism just now urged in defence of philosophy against its vilifiers from the side of science, if allowed at all, must be allowed to cut both ways. If all departments of knowledge have much in common, since Mind, the most important factor in knowledge, is the only factor that is the same in all; then, while we may expect philosophy to progress as well as science, yet—if it claim to be knowledge—it cannot do more than progress. And, certainly, it would advance more rapidly and with more ease if the positions already attained were definitely set down and named.

But this leads us naturally to consider for a moment the present state of philosophy. There has been no philosophy in England since Hume, says one; and none anywhere since Hegel, says another. 'Back to Kant' is the recent cry in Germany, and I have known some in England who have cried 'Back to Reid'. But in truth I very much question if there has been any harking back at all. Systems of philosophy are no longer the fashion, certainly. But there have never been so many competent experts—as we say nowadays—at work on philosophical questions as there are at present; and never has philosophical literature multiplied at such an amazing pace. The great bulk of this literature falls into one or other of two divisions—historical criticisms or monographs on special points—such as Geometrical Axioms, the notion of Experience, the Relation of Body and Mind, and so forth. And even the historical studies which form the first division are mainly confined to special lines of thought—a history of the doctrine of Categories, the various forms of Idealism—or to special thinkers and the development of their doctrines. So that we may say generally that philosophical activity has entered upon a new phase; system-makers have given place to specialists. As in science, so in philosophy, ours is the age of monographs. Many are the Jeremiahs with a speculative turn who lament this state of things as an unequivocal sign of degeneracy and

disaster; and nobody will maintain that it is an unmixed good. But then what is? Certainly not the *Panlogismus* of fifty years ago. The history of philosophy is full of reactions; and one might fairly say not only that the present state of things is one of these, but that it is a reaction caused chiefly by that exuberant system-making of which the Hegelian philosophy is the crown and climax. This is very impressively put by one bred and born in the school of Hegel, I mean by the venerable Edward Zeller—first in a once famous lecture on “The Plan and Problem of the Theory of Knowledge,” and afterwards in his *History of German Philosophy*. Referring at the end of the *History* to the movement in question, as one in which the rapid succession of comprehensive systems left speculation exhausted and forced at length to heed the demand for proofs, Zeller remarks: “On the one hand the flagrant contradiction in which their results stood when confronted with the empirical sciences shook the faith in philosophical systems first of those outside and finally of their own adherents. On the other hand, this state of things gave energy to the endeavour so to modify the principles and methods of philosophy, the materials of the empirical sciences being freely used for the purpose, as to eliminate such contradictions once and for all.” Then, in the concluding paragraph, having previously characterised German philosophy from Leibniz to Hegel as an almost unbroken Idealism, he continues: “In Hegel’s *a priori* construction of the universe this Idealism celebrated its systematic consummation. The stagnation of philosophical productivity which commenced at Hegel’s death, the gradual dissolution of the leading schools, the distraction and uncertainty which possessed everybody, plainly showed that the turning-point had come; and when, hand in hand with the decline of philosophical activity, there came work the most diverse and most varied in the region of the empirical sciences, especially the natural sciences, it was thereby clearly indicated that the new philosophy must enter into closer relation with these sciences, that she must avail herself of their results and their procedure, and must supplement her former all too exclusive Idealism by means of a sound Realism.”

It is above twenty-five years ago since Zeller abandoned the Hegelian standard. The assimilation of philosophy and science which he foretold has well begun, in proof whereof is this continual production of monographs. Some fifteen years later the periodical known as *The Quarterly Journal for Scientific Philosophy* was set afoot, and the best of the younger philosophy of Germany comes to light through its pages.

Here thinkers of such repute as Paulsen, Siebeck, Benno Erdmann, Göring, Wundt and many others have given in their adherence to the position that—to adapt a dictum of Kant's—philosophy without science is empty and science without philosophy is blind.

But let no one suppose that Zeller or any of those I have mentioned intends for a moment that the sublime speculations of a Spinoza or a Hegel are to remain now and henceforth meaningless or useless. The point is that they do not belong to the problems of philosophy in the present. A vast gulf has disclosed itself between the knowledge so far attained and any Absolute Idealism that can claim to be more than a hope or a faith. Many a lofty mountain that appears to have an unbroken contour from base to summit, when we view it as a whole and from afar, discloses, as soon as the actual ascent begins, minor eminences and intervening valleys innumerable. Then, for those who can only climb, true progress requires that they lose sight for a time, perhaps for a very long time, of the final goal; and quite possibly the really highest peak may turn out later to be one not at first descried at all. So the matter stands with philosophy: to-day we are really further on and have no call to hark back; albeit the prospect immediately before us is not the grand panorama seen as in a vision by those who went before. It may be objected that on this view it is impossible to draw any line between philosophy and science. If this means that there is, or at any rate should be, continuity between the two, it must be granted. But it must not be taken to mean that philosophy is itself but a science. Philosophy on any view endeavours to make our knowledge and our practice as a whole intelligible. It is no more a part of the sciences than life is a member of the body; in like manner it is no more separable from the sciences than life from vital organs.

Philosophers, then, may not be poets, and cannot be seers. Ideas are indeed their sole province, but only such ideas as deal straight with facts. There is a famous saying of Fichte's—"Tell me of what sort a man is, and I will tell you what philosophy he will choose". Such language would be ridiculous applied to science. Fancy saying that the kind of geology—I will not say geometry—that a man chooses depends on the sort of man he is. Fichte's words are full of truth and have deep and important practical bearings, but what they refer to is not scientific philosophy. No, the philosophy which, as I think, has most promise about it now is one that is content to submit to limits in return for stability. There are many alternative

theories concerning matter, mind, the past, the future—in short, concerning the universe generally—between which at present our existing knowledge does not enable us to decide. Such are of the nature of hypotheses, and, pending some critical settlement, cannot be accounted actual constituents of philosophy. Take, for example, the alternatives of Monism and Monadism : the one offers us unity by way of substance, the other offers us unity by way of organisation. Subjective preferences may incline A to the one and B to the other ; but anything like a decision, which shall command assent, whether or no, is out of the question. If it were not, we should not have such continual vacillation between the two, even in our own time. Scientific philosophy has to remain in suspense here much as I imagine scientific physics has to remain in suspense concerning the question whether matter is to be regarded as homogeneous and continuous or heterogeneous and discontinuous.

But some may here object that this is Positivism and not Philosophy. Are we to believe, it may be asked, that the settlement of the ultimate questions of philosophy depends on the ascertainment of fresh facts : is philosophy to depend on measurement as well as science ? Not at all ; the business of philosophy is with ideas,—that everyone must allow. To be sure, the accumulation of fresh empirical particulars does entail from time to time the emergence of new ideas of philosophic import : take the so-called meta-geometry, or the theory of natural selection, as instances. Still, what I especially would urge is, that we have not yet sufficiently cleared up and connected the ideas we have ; and that, till this is done, such ultimate questions as that between monadism and monism have to wait. What philosophy seems to want—as I suggested earlier—is *axiomata media*, middle principles ; and it is because the supply of this want is at length widely recognised as our immediate business that I venture to think philosophy is still strong, though no longer startling.

But, now, what of the future ? Is philosophy to remain for ever, or not ? Who can tell ? In the earlier days of our race, when habits of thought at once geocentric and anthropocentric had never been, as now, so rudely disturbed, an answer would have been forthcoming confidently enough. But it is one thing to believe that the world is reasonable, and quite another to expect oneself to see its reasonableness. The first is an implicit postulate of all philosophical inquiry—nay, of all science whatever. But even if the world be thoroughly intelligible, it may be that the human race can never understand it. Our intellects may be for ever too finite

and too fallible, even if we recognise the limitation to the phenomenal on which Kant insisted. Or it may, indeed, very well be the case that with such limitation a satisfactory *rationale* of the universe is essentially a contradiction. And if so, what then? Might it not happen that the human mind will at length cease to ask questions which have baffled it so long? A complete adjustment to environment and conditions would, in fact, seem to involve the eventual atrophy and disappearance of a propensity that has never been satisfied. Something of this sort is the opinion of thinkers of the stamp of Comte and Spencer.

Against this death of philosophy from inanition, we should, of course, urge—as I have just now been attempting—that philosophy *has* progressed; and, further, that if the sciences advance indefinitely, there will always be work for philosophers to do. But to this last remark there is a possible rejoinder that deserves some consideration. The indefinite advance of science may be, so to say, asymptotic: though it should never actually come to a standstill, it may yet, as regards those first-rate generalisations that open up new vistas for philosophy, reach what will be practically a stationary state. Reverting to a simile I used just now: if the science-finger of the clock of knowledge comes almost to rest, must not the philosophy-finger do so much more? And yet it does not follow, for several reasons; one of which will bring more directly before us another side of philosophy, so far only incidentally mentioned.

It does not follow, we may first observe, because, even if the number or extent of our scientific principles is limited, there is still an opening for continuous advance in the co-ordination and rationalisation of those principles. A man is inferior in size to a whale, though really its superior in organisation. It is this peculiar *quality* of knowledge as a unified whole, largely (though not entirely) distinct from quantity, which is, at least, one special concern of philosophy. The same material may have very different forms: an ounce of protoplasm, organised as a jelly-fish, and passively drifting with the tide, though it be alive, is a very different form of life from the lark, soaring and “singing in the blinding sky”. Still, we must admit that the quality I have attempted to describe is not wholly independent of quantity. Looked at as a mere question of possible combinations, it is clear that, with a finite number of terms, there is but a limited number of possibilities, and the best of these might be reached in time. Then we should have the final and triumphant philosophy: the last and best surviving its inferior com-

peers—surviving them, but embodying in itself all the partial truths they contained ; the paragon of philosophies, as man is commonly accounted the paragon of animals, exhibiting in himself the essential excellence of all animated nature. At first, the thought of *the* philosophy thus attained at length is a grateful one ; but it is not so for long. As G. H. Lewes has somewhere said, “ Mankind alternately seeks and shuns finality ”. And it is plain that the conception of a partial experience of the whole vast sum of things, however completely that experience is classified and transmuted into philosophy, is unsatisfactory, if not—as I just now hinted—contradictory. Either *the* philosophy must be co-extensive with being, or knowledge is not to be the prime source of its sufficiency. It must depend for its perfection on something besides theory ; and, as we all know, philosophy does also take account of the questions : What ought I to do ? and What may I hope for ?

Now it is, more especially, this inclusion of the practical and religious elements that forbids us to think that philosophy (if it does not disappear altogether, as the Positivists teach) must assume a final form, supposing the complement of scientific laws humanly ascertainable is ever made up. It is often alleged, as a grievous shortcoming of Locke, that he is content to say our knowledge is sufficient for our practical needs. For my part, I venture to think that his fault lay not so much in the principle he here assumed, *viz.*, that knowledge is subordinate to practice : it lay rather in his ignoring the fact that our knowledge is, after all, *not* sufficient for our practical needs. The earthquake of Lisbon, the cholera bacillus, the dissipation of energy, are all strictly and emphatically cases of natural law : they suggest no theoretical difficulties as such. A theoretical philosophy, which justified pessimism—so far as we could regard it abstractly as theory—might satisfy the claims of knowledge as fully as one that justified optimism. We cannot insist on omniscience as essential to a perfect philosophy, but it is essential that such a philosophy should satisfy our moral and religious nature. We may even go further, and say that, were our moral reason satisfied, we could acquiesce in a finite knowledge, which would not satisfy our merely intellectual nature, abstractly considered. This, by itself, knows no measure : it is only in ethics that we voluntarily impose a mean.

When we try to take stock of the world of life, and observe the relation between experience and action, we see at every stage that action is in advance of experience : all things that live seem to learn by doing. A spirit of hopeful

adventure appears to possess everything: I might say a spirit of faith. The whole story of evolution is typified in Abraham, the father of the faithful, who "went out, not knowing whither he went". Lungs were not first acquired by water-creatures who then proceeded to live on land: birds were not reptiles that first got wings and then began to fly. The function leads to the structure rather than the structure to the function. The world is full of efforts justified only by the results. There was nothing, we will say, in past experience to justify the first attempts at living on land or moving through the air; *also there was nothing absolutely to forbid it*. The attempt was made, and practice brought perfection. With a new sphere of life came new experiences and fresh enterprises. Say what we will, the practical man *will* reason back from consequences, and not merely forwards from premisses.

If we cannot have omniscience then, what we want is a philosophy that shall justify faith—justify it in the only way in which it can be justified by giving it room. So far, at least, one must agree with Kant in the famous passage in the Preface to his first *Critique*, ending with the words: "I must remove *knowledge* in order to get room for *faith*". But, as I have attempted briefly to suggest, practice may enlarge our theoretical horizon; and this in a twofold way: it may lead into new worlds, and secure new powers. Knowledge that we could never attain, remaining what we are, may be attainable in consequence of higher powers and a higher life, which we may morally achieve. All seems to turn then upon whether our existing knowledge, with such theoretical philosophy as it makes possible, leaves this room for faith, and so for growth.

Assuming this room left, two opposite speculative hypotheses present themselves, which I must be content to designate as the religious and the non-religious. Neither, from the nature of the case, can logically refute and silence the other. It is here, by the way, that those words of Fichte I referred to just now are in point. The future of philosophy depends on the issue between these opposite hypotheses; and what I would suggest is that that issue will in turn depend on the practical results to which the two lead. It will be a case of the survival of the fittest. Mankind seems bent on making the experiment perhaps on a great scale. In ignorance of the future of the race, we cannot, on theoretic grounds, forecast the future of philosophy.