THE LAWS OF MOTION IN ANCIENT THOUGHT

If the munificent bequest of Sir Percival Maitland Laurence had come to us half a century ago, the chair of Ancient Philosophy would have been filled by Henry Jackson. As praelector of Trinity College until his appointment to the professorship of Greek, Jackson threw his abounding vitality into a task which the University was not in a position to recognise. The nineteenth century saw in him a figure to be matched, in weight of scholarship and force of character, with his all but name-sake of the eighteenth century, Dr Johnson. Both were masters of the peculiarly English wit that is near allied, not to madness, but to common sense; both were great talkers—
Jackson the more genial of the two, countering folly with a north-country bluntness that did not forget the claims of courtesy. He taught the young scholars of many academic generations to clear their minds of loose thinking and never to leave a stone unturned. Like Socrates, he was content to leave his mark upon the minds of his pupils. His influence lives after him; it will continue to be felt by men who may never read a line he wrote. Influence may be healthy or unhealthy. A good teacher has no wish to impose either his personality or his opinions upon his students. He will go his own way, much concerned to set before himself a high standard of integrity, hardly aware that in doing so he is holding up an example to others. He is rather disconcerted by a too docile flock pattering at his heels, and better pleased when one or another strikes out for a gap in the hedge. Jackson’s opinions were not easily shaken, but he could relish an attack upon The Later Theory of Ideas by assailants whom he had himself furnished with weapons. Three scholars, who were as
deeply in his debt as I am in theirs, must be mentioned here: Richard Archer Hind, James Adam, and Robert Hicks. Outside the academic world, there are men still living in many walks of life, who, if they met Jackson only as the unflagging host, perambulating those rooms in Nevile’s Court with a syphon in one hand and a cigar-box in the other, count it an honour that they once received a friendly greeting from a great humanist and a great Englishman.

At Cambridge ancient philosophy means, in practice, Greek philosophy. Impassable barriers of language shut off our study from the ancient philosophies of the East. Causes that may seem less cogent have separated it also from the philosophies of modern Europe, which belong to the department of Moral Science. It is unlikely that our two departments will ever be fused into one; but there might be gain on both sides if some link could be forged between them. I have a word to say about the gain that might accrue to us.

The justification for keeping the ancient and
modern departments distinct lies in the different orientation of their respective interests. The students of Moral Science are partly engaged in learning the history of philosophy since Descartes; but it is their privilege to work under men who are themselves philosophers, bent on the advance of living thought. Such men may very well look back upon the speculation of the last four centuries as leading up to the present situation and pointing forward to the next step. The modern department can be criticised only for the suggestion of its syllabus, that philosophy made a clean start from the moment when Descartes retired into his stove (or whatever his étuve may have been) to consider whether anything could be more certain than his own existence. One need not read far in the Discours de la Méthode to be assured that Descartes took with him into his retreat a mind stored with an inheritance pre-determining the train of reflection he there pursued. You cannot draw a line anywhere across the history of thought and ignore what lies on the further side.
Our own department, on the other hand, turns not to the future, but to the past; our study is purely historical. It is open to us to draw a line at the dark ages and dismiss all that lies on the hither side as irrelevant. Our whole task is to reconstruct what went on in the minds of men whose very bones were dust when Descartes was born. It must be hard to understand Kant without reading Plato, whom Kant had read; but in certain ways it is easier to understand Plato without reading Kant, whom Plato had not read. If we have not enough historical sense to save us from reading back into the Republic discoveries announced in the Critiques, we had better leave Kant unopened.

I have lately been studying a neoplatonic commentary on the First Book of Euclid, hoping to find out how the Greeks conceived the objects and methods of mathematics. I had not read Euclid since those Victorian school-days when it was still believed that Euclid’s Elements were the same thing as the elements of geometry. Since then I have spent my life
chiefly in the fifth and fourth centuries before
the Christian era, improving my Greek and
forgetting my mathematics. From that van-
tage-ground I see Euclid’s marvellous codifi-
cation of geometry lying before me, a triumph
still to be achieved in the afterglow of the
Alexandrine age. What the elements of geo-
metry are now supposed to be, I have no idea;
but I imagine that the modern mathematician,
if he ever glanced at Euclid, would look upon
his work as a curiosity of antique literature.
Now suppose that I and the most accomplished
geometer in Cambridge whose learning of
Greek culminated in the Little-go were set in
competition to interpret the First Book of
Euclid. I would undertake to give a better
account of its meaning, just because I know
nothing of what Euclid could not have known,
whereas in my competitor’s mind every term
and proposition would be charged with mis-
leading associations. That instance shows how
ignorance of later developments may be a
positive advantage. Nevertheless, the student
of ancient philosophy is well advised not to
neglect the history of modern thought. It will be of service to him in two ways.

In the first place, even if he could transport himself bodily into the pre-Christian era, he would take his mind with him—a mind set in the mould of twentieth-century European thought. He must do his best, like Descartes, to detach himself from his own historical setting; and it is certain that, like Descartes, he will not wholly succeed. But the more various the systems he studies, the sooner he will learn that his own preconceptions are not self-evident truths, nor his habits of thought dictated by the nature of things. It will be a help, for instance, to know that the Aristotelian logic embedded in all our current language is not the only possible logic. It may then occur to him to wonder whether Aristotle’s logic was not, after all, the invention of Aristotle, inapplicable, perhaps, to some pre-Aristotelian philosophies. This loosening and breaking up of the fabric of preconception is the first gain to be counted on.

The second is this. Modern philosophies,
just because they are so different from the ancient, offer us standpoints for a distant view of our subject. Contrast may reveal how strange those older systems are—stranger than they seem at first acquaintance. That is the truth which I propose, in this lecture, to illustrate from a particular example. If we look beneath the surface of philosophic discussion, we find that its course is largely governed by assumptions that are seldom, or never, mentioned. I mean that groundwork of current conceptions shared by all the men of any given culture and never mentioned because it is taken for granted as obvious. The vision of the world present to the Greek imagination had a structure and perspective of its own, guiding their thought along certain avenues, and shutting out the view in other quarters. When we try to recover the outlook so framed and limited, we shall distort the picture if we unconsciously substitute our own perspective for theirs.*

* Since this lecture was written I have come upon the following passage in Dr Whitehead’s Science and the Modern World (1925), p. 71: ‘When you are criticising the philo-
The example I shall try to analyse in some detail is the difference between ancient and modern science in their attitude towards the laws of motion and causality. By modern science I mean a scheme of conception which prevailed in the last hundred years and still prevails, at any rate in Victorian minds like my own, when I fall back into natural ways of thinking, not yet readjusted to the recent revolutions in logic and physics. It does not matter, for my purpose, that the philosophy of science crystallised in Mill’s Logic or in Herbert Spencer seems antiquated to a younger generation, whose philosophy is, perhaps, rather in a fluid, if not a gaseous, state. All I need is a familiar standpoint for the contrast I wish to bring out.

The task of nineteenth-century science was compactly formulated in one of the ‘woolly periods of Dugald Stewart’ (as Mr Augustine

...
Birrell calls them), taken by Mill as the motto for his chapters on Induction:

According to the doctrine now stated, the highest, or rather the only proper object of physics, is to ascertain those established conjunctions of successive events which constitute the order of the universe; to record the phenomena which it exhibits to our observations, or which it discloses to our experiments; and to refer these phenomena to their general laws.

That is to say: we are to begin by looking at the course of Nature and recording what we have seen; to go on with experiment, testing any provisional theory suggested by observation; and to end with the statement of general laws that survive the test. These laws, moreover, are described as ‘established conjunctions of successive events’. We find, as Mill explains, that one phenomenon or event $B$ seems to follow regularly after another phenomenon or event $A$. What science is to establish, by more careful observation controlled by experiment, is a formula of invariable succession: $A$ is always followed by