

commonly, not formed by a single act;—they are not completed by the discovery of one great principle. On the contrary, they consist in a long-continued advance; a series of changes; a repeated progress from one principle to another, different and often apparently contradictory. Now, it is important to remember that this contradiction is apparent only. The principles which constituted the triumph of the preceding stages of the science, may appear to be subverted and ejected by the later discoveries, but in fact they are (so far as they were true) taken up in the subsequent doctrines and included in them. They continue to be an essential part of the science. 'The earlier truths are not expelled but absorbed, not contradicted but extended; and the history of each science, which may thus appear like a succession of revolutions, is, in reality, a series of developments. In the intellectual, as in the material world,

Omnia mutantur nil interit
Nec manet ut fuerat nec formas servat easdem,
Sed tamen ipsa eadem est.

All changes, naught is lost; the forms are changed,
And that which has been is not what it was,
Yet that which has been is:

Nothing which was done was useless or unessential, though it ceases to be conspicuous and primary.

Thus the final form of each science contains the substance of each of its preceding modifications; and all that was at any antecedent period discovered and established, ministers to the ultimate development of its proper branch of knowledge. Such previous doctrines may require to be made precise and definite, to have their superfluous and arbitrary portions expunged, to be expressed in new language, to be taken up into the body of science by various processes;—but they do not on such accounts cease to be true doctrines, or to form a portion of the essential constituents of our knowledge.

*Terms record Discoveries.*⁴—The modes in which the earlier truths of science are preserved in its later forms, are indeed various. From being asserted at first as strange discoveries, such truths come at last to be implied as almost self-evident axioms. They are recorded by some familiar maxim, or perhaps by some new word or phrase, which becomes part of the current language of the philosophical world; and thus asserts a principle, while it appears merely to indicate a transient

⁴ Concerning *Technical Terms*, see *Philosophy*, book i. ch. 8.