35. Sameness and variation.

The progress of modern science has, however, given a great impetus to the development of statistical or enumerative methods, and notably to the graphical registration of these results, through the importance which the phenomena of variation attained in all theories of evolution, and chiefly in those based upon natural selection. Quetelet had already pointed to the study of the maxima of the possible deviations from the mean and average, as of special interest and value. Nevertheless, the centre of gravity of the aspect unfolded in the writings of Quetelet and his followers was the idea of uniformity and average sameness. The conception of change and development did not fit naturally and logically into their scheme.[1] It was not till after the

('Æther and Matter,' p. 288): "The processes by which our conception of the uniformity of Nature is obtained essentially involve averaging of effects, and lose their efficacy long before the individual molecule is reached. Mechanical determinateness thus need not involve molecular determinateness; then why should either of them involve determination in the entirely distinct province of vital activity? . . . Every vital process may conceivably be correlated with a mechanical process, as to its progress, just to that extent to which it is possible experimentally to follow it, without lending any countenance to a theory that would place its initiation under the control of any such system of mechanical relations. In other terms, there is room for complete mechanical coordination of all the functions of an organism, treated as an existing material system, without requiring any admission that similar principles are supreme in the more remote and infinitely complex phenomena concerned in growth and decay of structure."

[1] A fate overtook the theories and writings of Quetelet and Buckle similar to that which I had occasion to notice above in referring to the great work of A. von Humboldt. Through the influence of the evolutionist movement, prepared by Lamarck, von Baer, Spencer, and others, centring in Darwin, the statical or morphological view had in every department of science to give way to the kinetic or genetic view. This explains why some names, once celebrated, like Humboldt and Buckle, sank rapidly into oblivion. Grant Allen, in his somewhat one-sided but spirited monograph on Darwin ('English Worthies,' 1888), has drawn attention to this. I give here the striking passage, reserving for the sequel of this work the liberty to differ in detail from much in it that is too drastically expressed: "There is no department of human