

38.
Environ-
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here we meet first of all with the great fact that a living thing cannot be conceived to exist alone; it is dependent upon its environment, and upon other living things of similar, never quite identical, and mostly very different nature. As a consequence of the conception which guided Lamarck in contemplating the living world—especially the crowd of living things which before him had remained unobserved—the influence of environment plays a greater and greater part in the study of every form of life. The further fundamental property of all living matter—that it absorbs through intussusception other matter which surrounds it, that it grows and multiplies by division, casting off some portions of its own substance as useful secretions or cumbrous and useless excretions—has the twofold result that every living thing modifies its own surroundings and that it creates a society of its like which, through an automatic process of crowding-out, exercises a kind of selection among its members, they being forced to accommodate themselves to circumstances and to each other.¹ The process suggested by Darwin as the rationale

there seemed no need for further investigation. Physiology, expounded as it often was at that time in the light of such a conception, was apt to leave in the mind of the hearer the view that what remained to be done consisted chiefly in determining the use of organs such as the spleen, to which as yet no definite function had been allotted. The discovery of the glycogenic function of the liver struck a heavy blow at the whole theory of functions." (Sir M. Foster in 'Claude Bernard,' p. 90.) On the necessary condition

of the experimental as distinguished from the anatomical method, namely, that it deals with the organism whilst it is alive, see the concluding remarks in Sir M. Foster's article on "General Physiology" in the 'Ency. Brit.,' vol. xix.

¹ The relations of living things to each other and to their environment admit of being contemplated in two ways, which may be best distinguished by a reference to human society, exhibiting as it does the two phenomena of co-operation and of competition. The former