

MR. WALLACE, in replying to Mr. Howorth's objections to the theory of Natural Selection, points out that that gentleman first misrepresents Darwinism, and that having done so he does not employ the distorted doctrine as premisses to a further con-

clusion. But the second part of the criticism is not quite just. Mr. Howorth, after stating the Darwinism theory, introduces us to an order of facts which is at variance with that theory as apprehended by him; and not only does he do so, but he places an interpretation upon these facts which is utterly irreconcilable with the Darwinian theory as understood by its most able expositors. It is true that Mr. Howorth does not bring his interpretation of the facts he adduces and the theory of natural selection into such juxtaposition as to show their mutual contradiction; but a little consideration will enable Mr. Wallace to supply the missing links, and to see that in any generous construction of Mr. Howorth's letter, the real questions at issue are the correctness of the facts he adduces and the validity of the generalisation he makes from these facts. My object in writing is to direct Mr. Howorth's attention to Mr. Herbert Spencer's profound discussion of this subject, as it appears to have escaped his notice. This is the more surprising, since, on p. 111, vol. iii. of "The Variation of Animals and Plants under Domestication," and to which Mr. Darwin refers him, there is the following marginal note:—"Since this MS. has been sent to press, a full discussion on the present subject has appeared in Mr. Herbert Spencer's 'Principles of Biology' vol. ii., 1867, p. 457, *et seq.*" He is a bold man who undertakes to enlighten the public on a subject which Mr. Spencer has fully discussed, without first ascertaining what view that profound and original thinker adopts; and most certainly a fresh writer coming into the field ought to take up the discussion where an author of such eminence has left it. If Mr. Howorth will look at Mr. Herbert Spencer's "Principles of Biology," he will find in sections 78 and 79, an explanation of the process adopted by gardeners of cutting the roots, and "ringing" the bark of fruit trees. Section 355 explains the fact that fatness is often accompanied by barrenness. In a footnote at p. 483, vol. ii., he will find Mr. Doubleday's doctrine specially noticed, and the fallacies upon which it is based exposed; while in the chapters "On the Laws of Multiplication," vol. ii., p. 391, *et seq.*, he will find the whole subject treated with a fulness and exhaustiveness which leaves little to be desired. Mr. Howorth will notice that Mr. Spencer does not deny Mr. Doubleday's facts, but that he places upon them an interpretation which brings them into harmony with the general theory of evolution, and with the special part of organic evolution which constitutes the Darwinian theory.

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