

NOTE V.

A. R. Wallace on Matter.

PERHAPS a maximum of confusion between our perceptions

and conceptions is reached in Mr. Alfred Russel Wallace's discussion of Matter in his *Natural Selection*. It would not be needful to refer to this feeble contribution of a great naturalist to physical science, had he not recently republished it without any qualifying remarks (*Natural Selection and Tropical Nature*, pp. 207-14. London, 1891). According to Mr. Wallace matter is not a thing-in-itself, but *is* force, and all force is probably will-force. It is unnecessary here to again remark on the illegitimate inference made in this extension of the term *will* (p. 70). But as force is only evidenced in change of motion, we may well ask what it is which Mr. Wallace supposes to move. If he is talking of the perceptual sphere, he fails to distinguish between our appreciation of individual groups of sense-impressions and of change in these groups, or indeed between perceptions and the routine of perception. If he is talking of the conceptual sphere he fails to distinguish between the moving ideals (geometrical bodies, points, or Boscovich's "centres of force") and the modes of their motion. As a matter of fact he uses force for sense-impression, for sequence of sense-impressions, for moving ideal, and for mode of motion. From this confusion of the perceptual and the conceptual are drawn arguments for spiritism, exactly as Aristotle, the Stoics, and Martineau have drawn them for animism (pp. 106 and 146). The chief difference between Mr. Wallace and his predecessors lies in the fact that he has polytheistic rather than monotheistic sympathies.

NOTE VI.

On the Sufficiency of Natural Selection to Account for the History of Civilized Man (p. 430).

IT is not only literary historians, but even naturalists who deny that natural selection is a sufficiently powerful factor to describe the development of civilized man. The most noteworthy scientist who takes this view is Mr. Alfred Russel Wallace. He considers that (i.) the large brain of man, (ii.) his naked skin, (iii.) his voice, hands, and feet, (iv.) his moral sense, could never have been produced by natural selection. He holds that all these characteristics are more fully developed in the savage than are necessary for his needs. He believes, however, that they have been developed in man by selection, as man himself

has developed other characteristics in the Guernsey milch cow. In other words he asserts that they are the outcome of the artificial selection of some intelligent power and not of blind natural selection. This theory of Mr. Wallace's has been well described by the phrase "man as God's domestic animal." Mr. Wallace, however, being polytheistic in conviction, has objected to the capital G in this phrase, and appears to hold that man is the domestic animal of the modern equivalents of angels and demons. According to him, therefore, "marriages are made in heaven," but by the lesser luminaries of the spirit hierarchy. No arguments in favour of the interference of this spirit hierarchy are produced except the supposed insufficiency of natural selection. The difficulties Mr. Wallace finds in natural selection do not appear of a very formidable character,¹ but surely if they were important enough to leave us in doubt as to whether we had found a sufficiently wide-embracing formula in natural selection, then the true scientific method is to remain agnostic, until it has been shown that no other sufficient perceptual formula can be found? Mr. Wallace rushes with such haste to his spirit hierarchy, that his pages read as if he had invented his difficulties in order to justify his beliefs, and not reached his "angel-made marriages" by a process of elimination, which left no other formula possible.

I have added this Note that the reader may not think that I have disregarded Mr. Wallace's views on the inapplicability of natural selection to the history of man. Such is far from being the fact, but I hold that Mr. Wallace's views as expressed in the chapter (pp. 186-214) on *The Limits of Natural Selection as applied to Man* in the recently republished "Natural Selection," and in the chapter on *Darwinism applied to Man* in the "Darwinism," will appear paralogistic enough to confute themselves if carefully studied.

¹ His whole argument, for example, with regard to the brain turns upon its *size*, whereas it appears that it is the complexity of its convolutions and the variety and efficiency of its commissures rather than its actual size, which we should psychologically expect to have grown with man's civilization.