

in early winter over rough tracks and frozen rivers. When, however, the party crossed into Sinkiang, which, so far as they had been able to ascertain, was reported 'quiet', they found themselves involved in the struggles of two opposing forces, of which one, that of the Mahomedan Tungan leader, was at the point of defeat. They were imprisoned by both forces in turn, and came within even less than the proverbial hair's breadth of being shot. They were detained so long at Urumchi, the turning point of their journey, that an expedition, which had been planned to take eight months, was prolonged to eighteen. The return from Urumchi, including time which was spent in surveying the "Silk Road" and at other

necessary halts on the way, occupied only fifty-three days.

Dr. Hedin describes the outward and return journeys with his customary attention to relevant detail, but his reflections on the general situation, illuminating in their bearing on its development since his book was first published in Sweden in 1936, tend to overshadow the interest of his topography. In view of the Russian economic and political predominance in the province, the author thinks that Sinkiang will be the field of the struggle between Russia and Japan for predominance in the East. China, which has endured for four thousand years without any outstanding military achievement, will, he holds, survive present trials.

## An Exposition of Marxism

### The Marxist Philosophy and the Sciences

By Prof. J. B. S. Haldane. Pp. 183. (London: George Allen and Unwin, Ltd., 1938.) 5s. net.

PROF. J. B. S. HALDANE is, by his own confession, a recent convert to the philosophy of Marx, and with the characteristic zeal of the convert wishes others to share his faith. If it is necessary or useful for scientific workers to have an explicit philosophy, Marxism is certainly more stimulating than the various brands of positivism that have been popular. It does at least suggest that scientific knowledge is important. Prof. Haldane begins with a brief general sketch of Marxism. He then discusses a number of present-day problems, mathematical, physical, biological and sociological, on this basis. He quotes a number of excellent comments that were made by Engels on the science of his day and are still relevant and illuminating.

As usual, Prof. Haldane displays an astonishing encyclopædic knowledge of science, and is interesting and lucid—except for one point. He does not succeed in dispelling the fog that surrounds the uses of the term 'dialectic'. The mildest use seems only to imply that in any complex system of things, people, or thoughts, opposing forces or tendencies are at work, so that processes are likely to oscillate first one way then another between extremes. The fiercest use seems to mean that Marxist opinion is always right, even if it is wrong, because it is dialectical, and everyone else's always wrong, even if it is right, because it is not dialectical.

Hegel's dialectic, taken as a description of the psychology of thinking in terms of a Heraclitean 'strife of opposites', is not without value. As a

statement of what is logically valid for thought it rests upon a misuse of such terms as 'contradiction' and 'negation' and therefore is confused, if not entirely wrong. Hegel tried to display the universe as a product of thought and this was, as many suppose, a fatal error. Marx tried to correct the error by inverting the Hegelian method. He treated thought as a product of human activity within a universe that is in itself other than thought. This may be an improvement: but he took over the Hegelian dialectic, inverted but retaining its inherent confusions. Heraclitus, who lived before logic had been invented, may be pardoned for stating his doctrine of 'the strife of opposites' without regard for logical rules, but his modern followers ought not to claim so much licence. In particular, the advocates of dialectic ought not to use the logical fact that every proposition has one contradictory and one only, to infer that in any situation there can be only two opposed tendencies or processes, whereas there may be many. The doctrine that the course of human history can be predicted rests on this assumption, and might be true if it were valid. In some instances the assumption may be harmless, but it is at best an over-simplification and a hindrance to clear thinking. Another source of difficulty is the notion that double negation has some mysterious virtue unknown to strict logic.

This is perhaps less a review of Prof. Haldane's book than an attack on dialectic. But while its dialectical confusions remain, the Marxist philosophy can scarcely be as helpful to scientific workers, or anyone, as the author would wish it to be. Possibly he is the man to put them right.

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