

# Communication

## SOVIET GENETICS

J. S. D. BACON'S review of A. G. Morton's book, *Soviet Genetics* cannot pass unchallenged. The book, as Morton states in his foreword, is an introduction to the subject, and therefore one should not expect it to be as detailed in every part as a less popular treatise would be. Nevertheless it presents Michurinism as a general theory, instead of the hotch-potch of separate hypotheses Hudson and Richens made it in 1946. This, probably the most important aspect of the book, Bacon misses altogether.

Bacon accuses Morton of dismissing chromosomes as "simply internal organs of the cell"? Yet read in its context (p. 54) this description merely emphasises the contrast with the description "organs of heredity" wrongly used by the Mendelists. On p. 133 Morton points out: "it is clear that the complex and highly regulated mitotic mechanism of division . . . fulfils some very essential function".

Bacon also claims that there is confusion between Morton and Lysenko on the question of the hereditary role of the chromosomes. Morton considers many cases where environmental changes act on the undividing cell in which the chromosomes are most probably not formed, and alter some metabolic processes. It is obvious that if in this process elements of the future chromosomes are involved some chromosomal change may be expected. He nowhere denies that chromosomal material carried over in the germ cells plays a role in the metabolism of the zygote, and hence affects its heredity. Lysenko, on the other hand, is considering environment acting on dividing cells when the chromosomes are organised, and thus may be affected directly. He rightly agrees that such changes as may occur affect heredity. There is no confusion here. Each is looking at different aspects of the same fundamental process. Both would agree that all the material, chromosomal and non-chromosomal, carried over from parent to offspring, determines the various metabolic processes of making up its heredity.

To say after all this that Morton has "failed to clarify the situation" is a sad reflection on our critic's faculties and can only mean that he regrets Morton could not supply more detailed analyses of the process of metabolism. Yet to say our knowledge is incomplete is surely to repeat a truism hardly worth restating. Michurinism clearly gives guidance for the further elucidation of these problems without the question-begging assumptions which cloy the dogmatic Mendelist of the present day.

The importance of Morton's book in providing a clear account of Michurinist theory can hardly be over-estimated. For it is not only an introduction; it is a very useful reference book which repays careful study.

R. F. PRICE.