

mental unity of the Chinese people and believed that the methods he had used had preserved this unity. He knew mistakes had been made; the whole object of the rectification campaign was to prevent their recurrence. But he firmly believed that the conventional Communist formula—often criticized during the ‘Hundred Flowers’ period—that achievements were primary and defects secondary really corresponded to the facts.”

Neither author fully brings out a feature of the communist system which would have provided a strong motive for Mao’s policy, if this view of his beliefs is correct. It is clear, even from official communist sources, that local cadres often abused their powers and created grievances which the leadership was willing to remedy when it found out about them and that, because of the suppression of criticism, it was often a very long time before the leadership did find out. If Mao believed that the communist system had been generally accepted and that the bulk of criticism would be directed against defects which the leadership was willing to correct, then he could, quite logically, conclude that freedom of criticism would actually strengthen the regime.

In fact, a great deal of the criticism attacked the basis of the communist system, and it came not only from the older intellectuals, which the communists could have explained away as the result of bourgeois background, but also from students, peasants and workers, and even from some Communist Party members of long standing. MacFarquhar gives a large sample of the criticisms which appeared, and Chou gives a summary with a number of quotations.

During May 1957, when people had found that it was possible to criticise without immediate reprisals, both the volume and the seriousness of criticism increased exponentially. At the beginning of June the Communist Party reacted with the “anti-rightist” campaign. The critics were attacked, dismissed from their positions, and forced to make new and humiliating confessions. The period of comparative freedom was followed by the strict enforcement of official orthodoxy and of complete subservience to the party and by the violent denunciations of revisionism, which have continued up to the present.

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General Theory of Banach Algebras.

Charles E. Rickart Van Nostrand, New York, 1960. 405 pp. \$10.50.

This book, as the title suggests, is entirely devoted to the general theory of Banach algebras. During the 1930’s algebras of operators defined on a Hilbert space, that is, special Banach algebras, were extensively studied by von Neumann and Murray. The abstract definition of this concept was given by Nagumo in 1936. But it was not until 1941 that Gelfand, in an epoch-making article, laid the foundations for a general theory of Banach algebras. Gelfand’s new approach consisted of the full use of the techniques of elementary ideal theory. In particular, the applications which Gelfand made of his theory to give elegant proofs of some very deep theorems of Wiener in the theory of Fourier series and the theory of Tauberian theorems attracted a great deal of attention. Moreover, Gelfand’s applications established the usefulness of algebraic methods in certain areas of analysis.

The book under review consists of four chapters and an appendix. In chapter 1 (“Fundamentals,” pages 1–38) the general definitions and notions of the theory are given. This chapter contains a detailed study of the motion of the spectrum of an element of a Banach algebra culminating in a simple proof (due to the author) of Gelfand and Mazur’s theorem that a normed division algebra over the complex field is isomorphic to the complex field. The algebraic foundations of the theory are given in chapter 2 (“The radical, semi-simplicity and the structure spaces,” pages 41–96). In this chapter the author presents a large amount of material that previously was available only in articles scattered in many periodicals. The theory presented in chapter 2 is applied in chapter 3 (“Commutative Banach algebras,” pages 108–173) to obtain Gelfand’s original theory of commutative Banach algebras. In addition to this, chapter 3 contains a detailed discussion of the theory of the Silov boundary and of the theory of completely regular algebras. Algebras with involutions, such as algebras of bounded operators, are studied in chapter 4 (“Algebra with an involution,” pages 178–260). This chapter contains Kaplansky’s and Fukamiya’s proof of Gelfand and Naimark’s conjecture that every B^* -algebra is symmetric. The author has refrained from giving a detailed account of the theory of special

algebras, such as the von Neumann algebras, algebras of continuous functions, and group algebras because three books, each devoted to the general theory of one of these special algebras, have been published. However, a brief account of each theory is given in three separate paragraphs collected in the appendix. Since most of the details are omitted in this appendix, it may be looked upon as a source of exercises. A complete bibliography, containing more than 800 titles, concludes the book.

It is Rickart’s belief that the development of the general theory of Banach algebras as an independent discipline is to be found in its algebraic development. In this respect the book, particularly in chapter 2, differs remarkably from its Russian counterpart, *Normed Rings* by Naimark (1956; English translation by L. Boron, 1959).

The style of Rickart’s book is concise but precise, and those who have an appreciable knowledge of the elements of functional analysis and general ring theory will find that it is not too difficult to read.

The book is an important contribution to the existing literature on this subject; the author and the publisher are to be congratulated for publishing this excellent book.

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Principles of Human Genetics. Curt Stern. Freeman, San Francisco, ed. 2, 1960. x + 753 pp. Illus. \$9.50.

For years it has been something of a cliché that man is an unfavorable subject for genetic studies. To be sure, one cannot deliberately plan crossing experiments with successive generations of human beings, as one can with, say, *Drosophila* flies; even if this were possible, the results would be too slow in coming for an experimenter to record them. Yet on the other hand, human materials offer advantages not found in any other material. Much historical information about human families is preserved in many places, from family chronicles to state archives; history has recorded nothing about *Drosophila* genetics. Human morphology and physiology are relatively well known. And more people are interested in man than in any other species; this makes possible greater expenditures of labor and funds