line drawings. This is a multidisciplinary approach which, when refined and applied to other areas, should result in further progress in the study of climate change, geomorphology, archeology, and geochronology.

Malcolm F. Farmer

Department of Sociology and Anthropology, Whittier College

The Economics of Under-Developed Countries. Peter T. Bauer and Basil S. Yamey. University of Chicago Press, Chicago; Nisbet and Cambridge University Press, London, 1957. xiii + 271 pp. \$2.25.

This volume on the economics of underdeveloped countries is the most satisfactory introduction to the subject yet to appear. In 257 pages of lucid exposition the authors, with exceptional understanding and insight, review the major economic influences governing the conditions of life in low-income countries.

The treatment is presented in two parts. Part I, a descriptive and analytical section of ten chapters, is designed "to illumine certain features of the economic landscape of the underdeveloped world." It does more, for in chapters on natural resources, human resources, and capital, it discusses many of the basic requirements for economic growth and improvement. Part II deals with the place of government in promoting economic development. Here in five chapters are reviewed the role and special functions of government and some of the major policy issues relative to the encouragement of capital formation, agriculture, and manufacturing industry.

Because of the normative aspect of the policy conclusions the authors are explicit in stating their political and social criteria. They favor economic development based on diffused decision-making in private enterprise, encouraged by public policies that widen the range of alternatives open to producers and consumers. This rationale for limited government participation is well stated. It is a statement that will be informative to many of those who accept the philosophy as well as to those who do not.

The authors have treated the subjects covered so well, that economists and lay readers alike will wish that more consideration might have been given to several neglected aspects of the subject. The relationship between economic improvement and population growth deserves a fuller treatment than it receives. In view of the recognized importance to economic development of skills and education (page 129), not to mention science and technology, it is unfortunate that the role of these influences is not elaborated

and that the policy requirements are not developed. For this the authors may be excused in view of the inadequate state of knowledge about the matter. But even a little illumination would have made this dark corner more understandable.

Another neglected and difficult subject is what may be called the strategy of economic development. On what basis can men determine which things must be deliberately undertaken first and which later, by government or by private citizens, and which things can be left to follow in due course? The criteria for judging priorities have not yet been formulated, as those engaged in economic development well know. Yet, one senses that these authors would have something worthwhile to say on the subject, and one wishes that they had recorded it here.

But these reservations merely reflect the appetite for more. Within the range of subjects chosen, the authors have made an important contribution to a better understanding of economic development in the underdeveloped areas of the world. As stated on the flyleaf, the book is in fact "for the general student of affairs as well as for the economist."

ROBERT D. CALKINS The Brookings Institution, Washington, D.C.

Year of Crisis. Communist propaganda activities in 1956. Evron M. Kirkpatrick, Ed. Macmillan, New York, 1957. xix + 414 pp. Illus. \$5.50.

As a seguel to the author's Target: The World, published in 1956, this study provides an extensive, if not exhaustive, analysis of near-current propaganda activities of communism. For clarity and refinement, it draws upon the earlier work as a point of departure. The analysis of the subject pivots upon the theory of Soviet propaganda as well as Soviet policy in relation to developments specifically ensuing from the 20th Party Congress. The organization and direction of Communist propaganda and the major world-wide themes stressed in 1956 are treated prior to a discussion of events within specific target areas and of operating media and channels of communication. Evron Kirkpatrick emphasizes the major situations which conspicuously shaped the course of Soviet propaganda activity in the period: (i) the redefinition of tactics and approach of world communism in Moscow; (ii) the de-Stalinization campaign; (iii) events in Poland and Hungary; (iv) the Near East crisis; and (v) the expanded role of Communist China as a source of propaganda and doctrine.

The editor apparently has attempted

to produce, in this sequel, a book which will be nearly beyond criticism from the standpoint of organization, method, and content; and as far as I am concerned, he has been demonstrably successful. Some exceptions, perhaps, should be noted. It is not clear, for example, why the word socialism is persistently set in quotation marks. The intent presumably is that of showing contrast with non-Soviet socialism, and thus an error in fundamentals results, since the so-called separate concepts are identical with respect to economic philosophy and nearly identical with respect to political philosophy; neither permits full expression of both political and economic democracy in the normative sense. This elementary confusion lessens, to some extent, the usefulness of the book as an instrument of political and psychological warfare.

In his discussion of the Moscow-Peking axis in propaganda activity with respect to increasing operations in the Asian target area, the reasoning of the editor is less than clear. The major struggle in southern Asia today is for the minds of the "overseas Chinese," since, for Peking, these groups provide built-in cadres for subversion. The gradual enhancement in prestige of the Free Chinese and the Government of the Republic of China—and their strong political warfare activity among the overseas Chinese-presents a vital challenge to the governing group on the mainland. The journeys of Chou En-lai in Southeast Asia during 1956 were essentially, although not wholly, for the purpose of engagement with the overseas Chinese. The editor, having failed to elucidate these facts of life in Asian propaganda activity, will elicit no especial laurels for his presentation of the case in point.

Some inaccuracies in Table 2 (page 82) should be corrected in any second printing. For example, depending on the editor's definition of a unicameral legislature, that of Laos is instead bicameral in a restricted sense rather than unicameral, with an upper-house Conseil du Roi; so, too, is that of Cambodia, with its Conseil du Royaume. The National Assembly (lower house) of each country is composed of 60 and 93 members, respectively, rather than of 39 and 257, as the table indicates. Several other errors may be noted, such as the simple mistake of stating that the Senate of the Philippines comprises 102 members and the House of Representatives, 24, instead of the reverse. Unfortunately, the incorrectness of this table is so marked that its usefulness is negligible, and this reflects on numerous other tables throughout the book.

Quite aside from such minor points, however, on balance Kirkpatrick has published a noteworthy volume, revealing in very great detail indeed the predatory efforts of Moscow in this field. Its study should be required of all concerned with the exigencies of world affairs and their relationship to American national policy. Kirkpatrick could make an even greater contribution in this area, of course, should he have the courage to trace through aspects of Communist propaganda in the major nations of the West, expanding upon his chapter X and including the United States and Canada.

Donald P. Ray

National Academy of Economics and Political Science

Principles of Perception. S. Howard Bartley. Harper, New York, 1958. xii + 482 pp. \$6.50.

In a nicely balanced arrangement, the 21 chapters of this textbook fall into three general areas of consideration. The first five deal with the definition, nature, and development of perception. The next 12 take up the separate senses and the experimental studies that reveal the human reactions to environmental and physiological impingements. The remaining four chapters bring the study of perception alive by deviating from the traditions of experimental psychology in presenting, in a single book, the studies in social perception, perceptual anomalies, and the everyday experiences in which human behavior reflects more than mere response to stimuli.

The student—the designated reader of this book—is introduced early to the changing appreciation among psychologists of the nature of perception. The old distinction between sensation and perception has dissolved, and the recognition of the whole body and past experiences is emphasized.

The traditional experimental chapters are fairly straightforward. Although the author's interpretation pervades the discussion, it is not pushed, and those of others are presented. This is particularly true of the chapters on vision, which are the best.

The two chapters on hearing cover many of the traditional experiments, but the conclusions that audition is greatly divorced from the domain of space and, because of this, plays the prime role in dealing with abstract ideas may come into some debate. And the reader may wonder what "fusion of intermittent white mice" (page 295) has to do with auditory flutter fusion of interrupted noise. There are not many such typographical errors.

As every reader of science fiction and the newspapers knows, the understanding of the behavior of man in an environment of unpredictable complexities is definitely in demand, and psychology, with its stimulus-response analysis, has not yet supplied this. Bartley's book is a good step in the right direction. Man is an integrated organism, developed and conditioned through an existence of successful and unsuccessful past experiences, and the kind of treatment provided by this text is what is needed for the interpretation of man's responses. Although somewhat bounded by tradition in that experimental results are presented in terms of the average observer, when what is eventually needed is an explanation of why individuals respond differently, the book is a contribution to psychological theory and an excellent step forward in both presentation of subject matter and in ideas. It should make a thought-provoking text, and the first and last areas of consideration should appeal to everyone.

Merle Lawrence
Physiological Acoustics Laboratory,
University of Michigan

Traité de Paléontologie. vol. VII, Primates: paléontologie humaine. Jean Piveteau. Masson, Paris, 1957. 675 pp. Illus. + plates. F. 12,800.

The latest of the seven major divisions of the *Traité de Paléontologie* is an excellent and comprehensive reference manual and a useful textbook on the paleontology of the primates. It is an authoritative review of the subject and covers the order in its diversity from the primitive tree-shrews to man, and in geologic time from certain minute, middle Paleocene forms of the Rocky Mountain region to the subrecent anthropoids of the Old World. Essentially, the book is written from the point of view of a paleontologist and deals with the materials available to the paleontologist for study.

The text is divided into two parts, the first being the general paleontological history of the primates and the second and larger section being devoted to human paleontology. The more important and classical discoveries and occurrences are treated historically, and stratigraphic details are given where such information is pertinent. The text is profusely illustrated, and in most instances the original plates and figures used by the various investigators have been reproduced, with excellent results.

Fortunately, from the standpoint of greatest utility, Piveteau has given more attention to morphological detail and comparative study of the materials and rather less to taxonomy and problems of classification. While rather generally following accepted interpretation in relationships, he has presented the pros and

cons where important differences of opinion exist. He has, for example, followed Le Gros Clark, G. G. Simpson, and others in including the tupaioids in the primate order; on the other hand he has excluded the early Tertiary apatemyids, agreeing with Jepsen, Hürzeler, and certain others. The problematical Pliocene anthropoid *Oreopithecus*, however, is treated as a hominid, a point of view vigorously maintained by Hürzeler but not too generally held by others.

Such criticism of the treatise as I may feel justified in offering, other than comments on certain details of classification, should properly be restricted to the area of my own studies, the earlier North American assemblages. While I find that consideration of the earlier Old World materials, particularly from the European Eocene, appears well developed, the North American picture is, for perhaps justifiable reasons, less adequately covered. Except for the phenacolemurids, little mention is made of the diversified and geologically oldest primates known, as recorded principally by J. W. Gidley and G. G. Simpson, from the middle Paleocene of the Rocky Mountain region. Moreover, the upper Eocene primates of North America, particularly those described by Chester Stock from the West Coast region, have been completely overlooked. Nevertheless, the American paleontologist who possesses a first-hand acquaintance with the New World faunas will find the treatise exceedingly useful in its better coverage of the more remote and, to him, less accessible materials. I think it should be noted, and with embarrassment, that there appears to be no up-to-date paleontological treatise or textbook on primates in the English language which compares with it.

C. Lewis Gazin

Smithsonian Institution

Explorations in Role Analysis: Studies of the School Superintendency Role.
Neal Gross, Ward S. Mason, and Alexander W. McEachern. Wiley, New York, 1958. 379 pp. Illus. \$8.75.

This is a well-written report on a major research study. The contribution the book makes to our knowledge divides into the two major areas that are clearly reflected in its dual title. On one hand, the authors give us some insight into important characteristics of the position of the public school superintendent. On the other hand, a pivotal concept in social science—namely, that of role—is tested for its power to make meaningful certain empirical data collected from superintendents and school board members.

The research study concerns a sample