which represent the transition from the family-associated level to the integrated society, but he thinks he has one in the Philippine Stenogastrine wasps, where the daughters remain at home until mature, and another in the common bumblebee, where the first brood, composed of imperfect females, stays in the nest and cares for subsequent broods which grow into normal adults and depart.

The reason why the integrated society is incompatible with the family-associated form is that, in contrast to the latter, it gives very little scope to the individual. Its member organisms are highly specialized; they have lost functions that would be required of nonsocial organisms, and they resemble parasites (in this case parasites on the community itself), except that the community is composed of them and is hence dependent on their specialized contributions. At the family-associated level, however, the individual adult is a functionally complete and self-dependent creature. Accordingly, the conditions of survival are different for the two levels, which makes the development of the integrated society out of the family-associated level a big and difficult evolutionary step.

This theory sets the stage for the author's integration of human society. The odd thing about human social life is that it is a mixture of all three types—familial, associative, and integrated. Deriving from the loose primate group, it achieves its integrated character by a principle unique to human beings, the principle of cultural transmission, which allows far more rapid diffusion of innovations than does the process of mutation and also permits socially learned rather than structurally determined specialization. But, we are told, the mixture of principles in human society is a mixture of incompatibles. Most of our troubles arise from the fact that, on the one hand, the integrity and independence of the individual have survival value, whereas, on the other, the subordination of the individual is required. The human culture-society is therefore an uneasy balance between these two necessities, the one represented by democracy and the other by totalitarianism.

Whether or not one agrees with all the central argument, the fact remains that it is developed with great skill. The best sections are those which describe and interpret the variegated societal phenomena of the organic world. Such matters as parasitism, "slavery," genetic change, geographical conditioning, and communal interaction are handled with rare insight. Although too little attention is given to primate groups, thus occasionally pushing the argument dangerously close to an analogy between human and insect, the handling of the evolutionary place of the human culture-society is nevertheless striking. In my opinion the author should not have gone on to deal with different kinds of human social organization. Not only is it questionable that these kinds have any real analogues in the nonhuman world, but it is also apparent that, like so many natural scientists when they attempt to deal with our social life, the author grows emotional and moralistic in this part.

The specialist in societies will regret the absence of citations to the literature except in a general bibliography. Yet both he and the general reader will welcome a work of such scope and learning written with marvelous lucidity. An original approach to fundamental problems, it contains some of the most readable descriptive and analytical passages to be found anywhere. Despite its popular form, despite its reliance on brilliant insight rather than systematic rigor, the volume will rank as a classic in the literature of comparative sociology.

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The New You and Heredity. 2nd ed. Amram Scheinfeld. Philadelphia: Lippincott, 1950. 616 pp. $5.00.

In the author's own words the purpose of this book is

> to sift out from the genetics laboratories and various research fields the outstanding facts about heredity directly applicable to human beings; to present these facts in clear-cut, untechnical language, diagrams and illustrations; to point out what their significance may be to the individual and society, and, wherever there is room for argument, to leave the reader to draw his own conclusions.

The steps and processes by which findings were arrived at were to be largely omitted.

The purpose of the book has been fulfilled. It is a popular book in that it is for people in general, rather than for a select few, and is easy to understand. The style is clear, direct, and even familiar as a result of the frequent use of the pronoun of the second person, popular phrases, and occasional slang, as well as allusions to current events. The reader of the book should not be deceived, however, by the informal journalistic style into thinking that the treatment must necessarily be superficial. The style and the simplified diagrammatic drawings are a technique for making learning as painless as possible.

The author tells us that he started out as a "cub" reporter in Milwaukee in 1918 and spent years in newspaper and radio work; that his need of facts for a work of fiction originally led him to the study of human heredity; and that

> before long I discovered that the findings in this field so completely shattered my own preconceived notions and the ideas held by all but an initiated few, as to obliterate my original plans. I became convinced that the most interesting and important task before me was to acquire as thorough a knowledge of the subject as I could and then communicate what I had learned to others.

The first edition came out in 1939. It had a wide distribution and was translated into a number of European languages. The new edition is extensively rewritten and enlarged by about 50% and contains some new and improved drawings and a number of excellent and highly original photographs. It covers a wide range of topics. In the first few chapters the fundamentals of Mendelian genetics are explained. The bulk

of the book consists of descriptions of many specific human traits, including differences classed as beneficial, deleterious, and neutral in their effects. The treatment of psychological characteristics, including mental diseases, has been extended. The last 150 pages contain chapters on evolution, human races, eugenics, and related problems, and a list of references and an index.

The author evidently has had a remarkably broad and fruitful acquaintance with professional geneticists and medical men, from whom he received much advice and assistance. Individual credit is given to one or more such persons for critically reading most of the chapters. In general the writing shows that care was taken to inform the reader whether statements are to be taken as established facts, as generally accepted theories, or as speculations. The reviewer has noted very few statements that seem to be factual errors or debatable propositions set forth as facts. In a book of such size and range some of these are to be expected.

Contemporary workers on the problem of gene duplication may question the assertion on page 59 that genes reproduce "by dividing and forming two of themselves." So far as the reviewer is aware, the precise method of gene duplication is unknown. On page 126 there is an apparent slip in using the expression "pigmy Hottentots." Although of small stature, the Hottentots are not commonly classed as Pygmies. On page 194 it is stated that Pygmies are found in Africa and Australia and that some tribes of Pygmies are achondroplastic dwarfs. The presence of Pygmies in the Andaman Islands, the Malay Peninsula, New Guinea, and the Philippines is not mentioned. True Pygmies seem not to have been reported from Australia. Published studies of Pygmies indicate that they are not achondroplastic dwarfs, in the usual sense of the term, either morphologically or genetically.

The criticisms are of minor importance. This book is recommended for the general reader on the score of its general soundness, excellence of organization, original features, and extremely readable style. A wide diffusion of the knowledge it contains could be of great benefit to individuals and to society.

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Economic Aspects of Atomic Power. Sam H. Schurr and Jacob Marschak. Princeton, N. J.: Princeton Univ. Press, 1950. (For the Cowles Commission for Research in Economics.) 289 pp. $6.00.

Marschak and Schurr and six collaborators have presented an exploratory study of the possible economic effects of peacetime atomic power. It is a scholarly, well-organized and wide-ranging study, without sensational conclusions. The authors emphasize that it is an exploratory and, therefore, tentative study for two reasons: technological data on atomic power are largely not available (nor existent), and the economic theory of the total economic effect of invention is complicated and imperfect. Nevertheless, this essentially conservative book provides the first serious and well-rounded orientation toward the unseen atomic future and is recommended to those who would have a part in this future.

The book is divided into three major parts. The first, consisting of two chapters, deals with the probable cost and other economic characteristics of atomic power compared with our more conventional energy sources. In Chapter 1 the authors choose a range of costs in which they believe atomic power may fall and examine the other economic characteristics, mainly that stemming from the ready transportability of atomic fuel. In Chapter 2 they present a very useful collection of data on the present characteristics of conventional power that serves to remind us that not all of the future is atomic. A particularly interesting map of the world water-power resources indicates the enormous supply of solar energy in this convenient form but in rather inconvenient location (western and central Africa being particularly notable). This section essentially sets up the question: What would the economic effect be if a power source falling within this range of costs and independent of location were available? The bulk of the book attempts to answer this question. In spite of this larger purpose, most of the initial skirmishing has dealt with the relatively less important, and as yet unanswered, question of the cost of atomic power.

Part Two, examining the detail of the possible economic effect of the new invention, is full of substance and interest. The industries examined include aluminum, chlorine and caustic soda, phosphate fertilizers, cement, brick, flat glass, iron and steel, railroad transportation, and residential heating. Of these, it seems to the reviewer, aluminum, iron, and steel were most significantly affected. For aluminum, the effect might operate on the future locational pattern of the industry rather than on its costs. For iron and steel, the electric smelting branch of the industry might be fostered, and, on a very long chance, the present blast furnace reduction methods might be modified. A great deal of valuable information on operating costs is contained in these 10 chapters. Unfortunately, some of these operation costs have become rather outdated in our recent and violent price changes. In some cases, one could have wished that a fuller treatment of capital costs, to augment the consideration of operating costs, might have been presented. Capital costs per unit of product can influence industrial decisions today quite as strongly as operating costs.

Part Three is a first-order attempt to describe the total economic effect on nations and regions of such a power source including the "sequence of complicated repercussions of one economic sector upon another." Only a "sketch" of this large and difficult problem is claimed by the authors. In comparison with the excellent exposition of the larger parts of the text, this short part deserved a bit more editing.

The whole book represents a reasoned study and,