of cultural progress with increase in the amount and efficiency of harnessed energy—he feels that White is performing a vital function in stimulating American anthropology to transcend its traditionally narrow empiricism and to reexamine its basic postulates.

Kluckhohn's paper measures up to the high standards of interpretation and analysis that characterizes all his discussions of the Navaho. Since much of the material is found in *The Navaho*, there is little point in reviewing it here.

Bidney defines meta-anthropology as the "investigation of the basic or logically primitive assumptions as to the nature of the world and of man involved in any one given cultural system" (p. 336). Such an undertaking, we whole-heartedly agree, is as necessary a function of the anthropological enterprise as is the "collecting of empirical data." Though some of his conclusions may be in disagreement with the consensus of anthropological thought, Bidney is always stimulating. In his discussion of primitive mentality, he takes issue with both Malinowski and Lévy-Bruhl by concluding that *primitive culture* is pre-scientific, though primitive *mentality* is not pre-logical. He observes that superorganic theories of cultural determinism commit "the culturalistic fallacy" of abstracting human achievements from the human agents that produced them, and then viewing the achievements as their own causal agents. He points out that an unmitigated relativism means the bankruptcy of science, since, *ex hypothesi*, the conclusions of science can have no validity beyond their own cultural point of origin. Furthermore, relativism is self-defeating in that it assumes that *it* is not relative but is, somehow, an objective insight having cross-cultural validity.

As in his other papers, particularly his contribution to the Cassirer volume in the Library of Living Philosophers, Bidney reveals a lucidity of style and of method that is in sharp contrast to the fuzzy thinking that characterizes many discussions of these points.

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Human Behavior and the Principle of Least Effort. GEORGE KINGSLEY ZIPF. (xi, 573 pp. Addison-Wesley Press, Cambridge, Mass., 1949.)

Dr. Zipf's purpose is "to establish The Principle of Least Effort as the primary principle that governs our entire individual and collective behavior of all sorts, including the behavior of our language and preconceptions." Part I is devoted to individual behavior, Part II to collective behavior. After a general introduction, Chapter 2 deals with "words and their meanings from the viewpoint of the speaker." Certain regularities (vocabulary balance, the orderly distribution of meanings, the integrality of frequencies, the length of intervals between repetitions) are demonstrated from Thorndike's word list, Ulysses, Plautus, Beowulf, etc. The accent is upon "the even distribution of minimized work over time." The following chapters consider formal semantic balance, the verbalizations of children, speech from the point of view of the auditor, and ego structure. Chapter 6 contains an attempted proof that the Principle of Least Effort[1] "provides a sufficient explanation of all biological evolution." Chapter 7 is entitled "Mind: Sex, Culture, and Schizophrenia." It includes the following statement:

[1] "An organism will expend the *least average probable rate of work* (as estimated by itself)."

. . . *a person's personality exists only as a role that he is playing in terms of the observable language of a culture.* This is the person's *cultural personality,* which is the only objective personality that there is.

Yet how about the schizophrene, who plays no cultural role? Alas, by definition, he has no personality (p. 311.)

The topics of Part II are: the economy of geography, stable and unstable intra- and international equilibria, the distribution of economic power and social status, nations as dominance systems, prestige symbols and vogues.

This reviewer is aware of his inability to approach objectivity in comment. He confesses that he finds Zipf's political sentiments (which obtrude themselves both in text and footnotes (cf., e.g., pp. 431, 241) odious. He is also irritated by the atrocious style: there are infelicitous neologisms, dreadful facetiousness (cf. e.g., p. 521), turgid locutions, tiresome repetitions, ludicrous analogies. He is also repelled by yet another attempt to find one magic generalization that will explain not something (which indeed this one does) but everything, which it cannot. One example:

. . . the contentions of the Freudian school that man wishes both to live and to die, and that procreation is an urge of life, and that love and hate go hand in hand, are all understandable in the light of our theoretical Principle of Least Effort (p. 242).

Zipf has acquired a smattering of anthropology, hardly more. He seems to be unaware of Kroeber's work on fashions and of other studies immediately pertinent to his own interests. He makes naive statements such as that in primitive societies the strongest man tends to have the greatest prestige (p. 518). Some of his speculations on evolution and constitutional anthropology will hardly impress the physical anthropologists:

Suppose that several million years ago there was one species of monkeys, *a*, that was asthenic-schizoid like the chimpanzees, and another species, *b*, that was pyknic-cycloid like the orangutans.

What would happen if, in some local region, an illness destroyed the females of *b*, with the result that the sex-starved *b* males helped themselves to the *a* females and produced a self-fertile hybrid $(a+b)$?

. . . the new breed of monkeys was only a case of the bionomial expansion of the factor of two distant species, the extremes of which we find in the extremes of schizophrenia and of the manic-depressive phychosis—two sets of factors that are in varying degrees in all of us (pp. 307–308).

Nevertheless there is grain amid the chaff. In particular, his statistical analyses of empirical data merit careful attention. The sheer quantity of data assembled and considered is prodigious. One may cite the rank-frequency and number-frequency distributions of Nootka,[2] Plains Cree and Dakota morphemes, holophrases, and varimorphs. Zipf has previously published the evidence for the generalized harmonic distribution of the rank order of size of communities, but these facts are still arresting, as are the relationships between number and diversity of service establishments in relation to population. Regularities in a staggering range of data are shown. To name only a few: number of different news items in various American papers; number of obituaries in the *New York Times;* charge accounts of Jordan March Co., Boston; bus, rail, and air passenger travel; telegrams exchanged between cities, density of traffic in Milwaukee;

[2] Includes previously unpublished Sapir-Swadesh materials.

claims against insurance companies; marriage licenses related to residences of applicants. It is worth reflecting upon the fact that there is a relationship in many areas of human behavior that approximates a simple hyperbolic function. The reviewer is not competent to discuss the more technically economic content of the book, but the criticisms of Pareto's income law, for example, appeared impressive.

In sum, this book is not convincing as a presentation of mature, systematic theory. It is overly ambitious. There are too many curious, undigested juxtapositions of half-synthesized facts and concepts. It remains, however, a storehouse of intriguing information and of ideas—fertile and suggestive, mad, irrelevant.

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BOOK NOTES

Kava in Hawaii. MARGARET TITCOMB. (65 pp., 9 plates. Reprint from Journal of the Polynesian Society, vol. 57, No. 2. Wellington, New Zealand, 1948.)

This little treatise recovers, more fully than might be thought possible, the now vanished Hawaiian version of the kava complex. The plant, the beverage made from it, its physiological effects, its use as medicine, its association with rank, religion, and sorcery, and the utensils used in preparing and consuming it are meticulously described. Though written sources are supplemented by interviews with Hawaiian informants, this is mainly a library job. Thorough research is shown by the fact that the bibliography runs to 60 numbers, and one of them, no. 48, includes 22 separate translations, mostly from old Hawaiian periodicals, by Mary Kawena Puku'i, who has made a life work of translating Hawaiian documents. Beside the better known sources, use is also made of old letters and documents from the archives of the Hawaiian kingdom. The Hawaiian kava complex differs in many details from the better-known western Polynesian one, notably in absence of the celebrated kava ceremony, a ritual manifestation of rank. Even the drink itself is different. Hawaiians despised "the dishwater drunk in the south," and made their kava as thick as pea-soup. Yet the fundamentals of the pattern are all there. (E. G. BURROWS.)

Burmese Folk-Tales. MAUNG HTIN AUNG. (xxxii, 246 pp., Oxford University Press, Calcutta, 1948.)

This volume is, according to the author, the first collection of Burmese folk tales to be published either in English or Burmese. All of the seventy tales in the book, save one, were collected in upper Burma. They were originally noted by the author in Burmese; only the English translations are given in the present work.

Dr. Maung Htin Aung is Professor of English Literature and academic head of the University of Rangoon, and is especially known for his excellent earlier study on the Burmese drama.

This book is prefaced by an analytical introduction which discusses the characteristics of the four classes into which the tales are grouped; animal tales, romantic tales, wonder tales, and humorous tales. The latter class seems particularly worthy of further study, since so very few analyses of the humor of a people have been undertaken by folklorists and ethnologists generally. (DAVID G. MANDELBAUM.)

Asiatic Influences in American Folklore. GUDMUND HATT. (122 pp., 9 Kronen. Det. Kgl. Danske Videnskabernes Selskab, Historisk-Filologiske Meddelelser, Bind XXXI, Nr. 6, Copenhagen, 1949.)

The author briefly surveys theories about the possibility of historical connections between myths of the New World and the Old World, as presented by Boas, Bogoras, Jochelson, Ehren-