assumption of unchanged fertility. The increases in income in relation to 1956 income are also shown, but the authors are the first to point out that these figures have little significance, if any. They emphatically disclaim any intention of forecasting national income 30 years ahead; they are interested solely in the relative difference between the results under conditions of high and low fertility. In order to test the significance of this differential, the estimates of the parameters are varied within fairly wide limits. While these variations of course give widely differing rates of growth of national income, the relative difference between the high- and low-fertility variants remains remarkably stable, at around 40 percent. This differential would, if anything, be a minimum, since no allowance has been made for the feedback effect of higher consumption improving the vigor and efficiency of the labor force independently of investment or other development outlays. The authors discuss this factor (page 261) but refrain from introducing it explicitly in the model, since any prediction of the extent of this effect would have to be based on pure guesswork.

It would be strange if a couple of mistakes could not be pointed out in a volume which marshals such a vast amount of empirical material. We are told on page 86 that over the last century the proportion of the Indian people engaged primarily in agriculture has increased from about 50 to 70 percent. This is probably due to a misinterpretation of the occupational classification of the 1872 census. It is indeed difficult to imagine what could have been the activities of the "nonagricultural" half of the population a century ago when only 7 to 8 percent of the population were living in towns. On page 116 the Indian agriculturist is said to be "occupied for only about three months in the year, and many of the landless labourers even less than that." Here the authors can perhaps be excused, for vast exaggerations of the amount of rural unemployment abound in Indian economic literature. On page 194, housing is estimated to account for no more than 15 percent of the "monetized" fixed investment. Twice that figure would be nearer the truth. This mistake is of some importance in the further calculations, for the (allegedly) very low share of housing (which has a particularly high capital-output ratio) is cited by the authors in arguments favoring the assumption of a rather low over-all capital-output ratio for India.

However, these are only petty slips in a book which is very comprehensive and full of original and stimulating ideas. No doubt it will prove to be a highly influential book. It does not preach or plead in matters of population policy, but nevertheless—or perhaps therefore—it cannot fail to serve as an eye opener. In fact, it has been serving that purpose since 1956, when a preliminary draft was given wide circulation among Indian economists and demographers.

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The Evolution of Culture. The development of civilization to the fall of Rome. Leslie A. White. McGraw-Hill, New York, 1959. xi + 378 pp. Illus. $7.50.

Leslie White, a veteran social anthropologist at the University of Michigan, has set himself the monumental task of writing the social history of man in three volumes. This, the first, has 278 pages on primitive culture and 89 pages on the agricultural revolution and its consequences, carrying the story to the fall of Rome. Volume 2 will be on the fuel revolution and its consequences. Volume 3 will be a review of the current scene and a prediction for the next hundred years.

In volume 1 White expounds the theories that he has been forging over a lifetime: The 19th-century exponents of cultural evolution—Tylor, Morgan, Spencer, and others, who followed close in Darwin's wake—were right; Franz Boas, who, according to White, poisoned a generation of anthropologists against these titans, was dead wrong; and he, Leslie White, alone, unaided, and defiant, has been able to revive, refine, and restate the older concepts in terms of modern science.

He traces the origins of human society from a primate background, calling the acquisition of speech a primate revolution. Following Morgan, he divides social systems into two categories—primitive and civil. Primitive society is based on kinship and lacks classes and property in the modern sense. Civil society arose after the agricultural revolution, and "all civil societies are composed of two major classes, a small, dominant, ruling class and a large subordinate class of slaves, serfs, peasants, or proletariat" (page 219). In primitive society happiness was for everyone; in civil society, only for the privileged few. In primitive society economic organization is a function of social structure; in civil society the reverse is true.

In a review of this length it is impossible to point out details. Some of White's deductions, such as that on the origin of incest, seem original and plausible, but there are also weaknesses. For example, he divorces culture from the individual as completely as some psychologists remove the mind from the nervous system, and he proposes to ignore the biological element in the formation of cultures. If every primitive man cooperated as thoroughly as White maintains, there would have been no biological evolution.

What strikes me most is not the content of the book but the tone—the angry vacuum in which it seems to have been written. He quotes many 20th-century anthropologists, but almost always only to refute them; he has kind words only for Cora DuBois and G. P. Murdoch. Others who are not "Boasites" and who have also been engaged in studying the evolution of culture he ignores completely. Perhaps silence is meant for a compliment. Anyhow, it will be interesting to see what happened in the fuel revolution, and to find out what the future holds for us.

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Motivation. A systematic reinterpretation. Dalbir Bindra. Ronald Press, New York, 1959. vii + 361 pp. Illus. $5.50.

In a field as formless and ill-defined as the psychology of motivation, it would be hard to write a textbook without at the same time introducing categories and principles designed to impose sense and order where these are now lacking, and thus assuming the responsibilities of a monograph. The present book is no exception, and its dual role is acknowledged in its title and subtitle.

The content of the book has to do with the activities of "eating, drinking, approaching, escaping, attacking, exploring, copulating, maternal care of the young, and the like," largely at the infrahuman level. These activities are called "motivational phenomena," and are seen as raising two questions: How are responses patterned into goal-directed action? And what variables determine the latencies, frequencies, amplitudes, and other quantitative properties of the behavior? Bindra believes that no physiological or psychological processes exist that are unique to motivation, and such concepts as motive, drive, need, and incentive are dispensed with or are given secondary status. In their place, to account for patterning, is a concept of reinforcement strongly resembling Skinner's concept, together with a Hebbian emphasis upon the significance of early experience. Quantitative variations in behavior are dealt with as functions of habit strength, sensory cues, level of arousal, and blood chemistry. The ade-