

reviews

Making sense of man's universe

Garrett Hardin

The Little Universe of Man. By C. D. Darlington. Pp. 307. (George Allen and Unwin: London, 1978.) £6.95.

THIS is a biologist's attempt to make sense of the world's past, to foresee its probable future and, by putting foresight into words, possibly to influence what comes.

On what basis shall we appeal to people to alter their actions? "As the teachings of Adam Smith and Robert Malthus, Karl Marx and Charles Darwin agree, the animal principle of the self-interest of individuals, often, as we know, enlightened and extended, is the only motive to be infallibly relied on in the conduct of human affairs". It is psychologically necessary to believe in the rightness of one's action if that action is to be pursued with the fervour required to melt away opposition; out of this necessity springs the paradox of self-interest creating self-deception.

Does self-deception have survival value? It depends on the stage of ecological maturity of society. "As the resources of the earth become more depleted and populations both more crowded and more deprived, the greater will be their effort to pass the problem on to the next generation. Self-deception will become more persuasive. Optimism will take hold. Those who remember 1914 and 1939 will also remember that these smaller calamities were produced by optimists but foreseen by pessimists. Indeed before these events an optimistic temperament had seemed to confer a permanent selective advantage in human evolution. It is not so now".

For the extreme example of an approach that will not solve the world's problems Darlington cites witchcraft: "The profession of witch-doctor dominates Negro life in Africa, creating a religion whose redeeming features we seek in vain". Despite justifiable criticisms that can be levelled against it the European approach to reality is the world's last and best hope: "The world is indebted to Europe for two great achievements which have transformed human life in the last 500 years. One is the control of nature which has led to our present crisis. The other is the understanding of nature and of man which is our means of

escape from this crisis".

At every stage in our progress in understanding ourselves our will to self-deception erects taboos capable of delaying understanding for generations. In the English-speaking world the idea of man as an animal was under a taboo from about 1819 to 1859; human sexuality continued under taboo until about 1930; and the dispassionate discussion of the existence and consequences of innate human differences is still seldom possible. To a geneticist, of course, it is inconceivable that innate, heritable differences could not exist, and it is hard to believe that none of these is humanly important. A Darwinian biologist (and what other can there be?) looks for selection everywhere. Darlington's book is permeated with the Darwinian outlook. It takes only a moment for a perceptive biologist to postulate selective adaptations that may require years to validate. Darlington postulates many, so his book should stimulate many controversies.

The author is not unsympathetic to the currently reigning taboo: "Innate hereditary or genetic differences must not be admitted between individuals or groups, between classes or races, or even between the sexes. But above all what must not be discussed, what must be rejected, are differences in the foundations of human behaviour, the study of brains, of instincts, and of intelligence. These foundations are complex and happily concealed from the public view. They must remain concealed. In a world already overcrowded and over-troubled they might cause more trouble".

A great source of the ever-verdant controversy of nature versus nurture is the awkward fact of causal circularity, sometimes called the "Baldwin

effect." First we select our inventions and then our inventions select us. Equestrian cultures undoubtedly selected for the ability to manage horses, which not all men have. Agriculture and the capital accumulation that it made possible selected for the willingness to engage in sustained, hard work and for a new form of competitiveness between tribes. The increase in the supply of food brought about by agriculture did not set supply and demand permanently in balance: it merely moved the instability to a higher population level and rewarded those who could successfully migrate into new and relatively unexploited environments. Language selected for those who could manipulate language—and their fellow-men—most competently. This fact justifies the overwhelming emphasis on language in intelligence tests; it also explains the passion invested in a particular language. "People have treated the survival of their language in speech and writing as a matter of life and death. And they have been right in doing so since language guarantees the survival of the breeding community".

Trying to make sense of the whole universe of man, as Darlington does, is an ambitious undertaking, scarcely mitigated by calling it a *Little Universe*. Every thoughtful person will find many points of disagreement with the author. The beauty of it is that the points of disagreement are easy to find, for Professor Darlington's exposition is crystal clear. The result is a splendid book for stimulating important discussions. □

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Coral reef research

Coral Reefs: Research Methods. Edited by D. R. Stoddart and R. E. Johannes. Pp. 581. (UNESCO: Paris, 1978.)

THE study of coral reefs, earlier largely sustained by occasional expeditions, sprang suddenly into the fullest vigour in the Marshall Islands in 1945. This was in preparation for the atom bomb

tests that began in the following year in Bikini and then Eniwetok atolls. Preliminary studies were exhaustive in their oceanographical and descriptive ecological content, and as a result of unprecedentedly deep boring, the validity of Darwin's postulates (if not their universal application) was established.

This impetus was sustained by the Coral Atoll Program of the Pacific