## Messianic Radiation

Star-Begotten:

a Biological Fantasia. By H. G. Wells. Pp. vii+199. (London: Chatto and Windus, 1937.) 6s. net.

IT is always interesting to see what a scientific fact will look like after Mr. Wells's imagination has been let loose on it. The facts on which this book is based are that particles or photons of high energy provoke mutation, and that such particles and possibly photons are reaching our planet from outside. What if some intelligent extra-terrestrial beings, perhaps on Mars, are treating us as we treat Drosophila? If these beings are as benevolent as they are powerful, may we not expect that our mutations will be of a desirable character, and that the mutants will reform the world? So Mr. Wells's characters argue. Two thousand years ago Virgil was writing:

"Iam nous progenies coelo demittitur alto"; and it is widely believed that his prophecy was fulfilled. Wells predicts not a single saviour, but millions of messianic mutations.

It is worth while pointing out why such a theory, even if there were some evidence for it, would be unacceptable. First, as Wells himself remarks, the cosmic radiation is undirected. As a theme for his next story, I offer him the radiation of about 15 metres wave-length which Jansky found to be reaching our planet from the hub of the universe, or rather of our galaxy, in Sagittarius. Secondly, spontaneous mutation has a fairly high temperature coefficient, and therefore cannot well be due to radiation. Muller discovered this fact before he showed that X-rays are more effective than heat in provoking mutation. But radiations are news, and temperature coefficients are not, so the discovery is generally ignored. Finally, cosmic radiation obeys (if one may use such a word) the uncertainty principle, so even a superhuman marksman aiming at particular genes in human nuclei could scarcely expect much success. It is interesting that temperature fluctuations are equally uncontrollable, so that at present we have no method which promises anything better than a random provocation of mutations, most of which are harmful.

Why, we may ask, has our author chosen this particular theme? Many of my younger contemporaries, in Flecker's words,

"Take no more solace from the palm-girt Wells".

I think they are wrong. He still represents an

important tradition, he is a great stylist, and the workings of his mind are most instructive. "Star-begotten", like Stapledon's "Last and First Men" and "Odd John", but unlike his recent "Star-Maker", despairs of existing humanity, and demands beings of innate endowments superior to our own to deal with the present crisis of civilization, which it sketches in brilliant phrases. The author is obviously sceptical of the remedies which he and others have propounded. "Haven't all civilised men nowadays the feeling of being dilletantes on a sinking ship?" asks one of his characters. So with unconquered optimism he puts forward a panacea which he knows to be fantastic.

Some of the undercurrents of Wells's thought are indicative. He is strongly anti-communistic, but he cannot help being influenced by communist Thus he uses the word ideology, and on p. 165 we find a phrase about mad dogs which perhaps owes something to a speech of Vishinsky's at the first trial of Trotskyists in Moscow. Many of his phrases remain apposite if the letter 'x' is substituted for 't' in Martian. Making this substitution, we read "At the onset of a strange way of living we bristle like dogs at the sight of a strange animal. He hated these Marxians as soon as he thought of them. He could not imagine that their interference with our nice world could be anything but devastating". Another character is more tolerant. "And now these new creatures from outside, these creatures called Marxians, are coming on board our drifting system. With their hard clear minds, and their penetrating unrelenting questions stinging our darknesses as the stars sting the sky. Are they going to salvage us? Shall we let them if they can?"

Whether or not the Marxians have correctly diagnosed the cause of our present distresses, it is clear that evolutionary processes, either natural, or directed by terrestrial or celestial eugenists, are most unlikely to end them. The time-scale of evolution is altogether longer than that of history; and we probably have not many years, let alone generations, to save our civilization from collapse. If this book encourages a single reader to think, even for one moment, that any natural or supernatural process will take the place of human effort and human thought, then it is a bad book. But if it is read as a record of conversations between rather worried intellectuals, it is not only an excellent piece of writing, but also a valuable historical document. J. B. S. H.