I should say yes to all of them, I'm afraid; and cite the turning away of generally-cultured readers from the 'highbrow' novel to 'serious' biography as an illustration. The advent in the novel of what academic critics call Modernism, identifying it at its outset in the work of Henry James and at its apotheosis in that of James Jovce, say a focusing of the novel on "the interior experience". The interior experience is interesting enough; but in the absence of the exterior experience it begins to appear to the generally - cultured reader narrow and sterile and ultimately mindless. When the interior experience is taken to be a mélange of sense-apprehensions and instinctive responses, it is indeed mindless.

The novel of the interior experience is by definition not going to incorporate the powerful attention-holding element of narrative, and probably not even the feeble attention-holding element of 'linear thinking'. Biography, on the other hand, has to tell a story, the story of its subject's life. And while giving intimations of his interior experience, it has to trace his exterior experience-a Modern biography that didn't deal with its subject's relation to other people, to society and to external events during his lifetime would seem damned silly. Should one be surprised, then, that the generally-cultured reading public have demoted the Modern and Post-Modern novel, and the novel, tout court, from the No. 1 place, and installed biography there?

I was stirred to these thoughts by reading Volume 1, 1894-1939, Sybille Bedford's biography of Aldous Huxley. Mrs Bedford has great literary talent, and through everything she writes shines a sympathetic intelligence-not to say an admirably unforced professionalism as well. Had she, with the present material, written a novel about an Aldous-like character-and she would have done it excellently-it would have been reviewed, along with four or five others, to the tune of about 150 words or less: this biography will be reviewed on its own to the tune of up to 500 words or more. It makes you think.

I should add, of course, that there is currently a revival of interest in Mrs Bedford's subject, including an existentialist campus vogue for his anti-Utopian and disgust-with-life books. In the context of that fashion my own opinions are heretical. When I was an undergraduate I greatly admired Crome Yellow and Antic Hay: the way he slid intellectual dialogue into the novel was marvellous. I still admire; but re-reading the books, I find they don't wear at all well. There's an air of artificiality, of divorce from the throb of life, which makes them seem thinner, weaker. With hindsight I should say that was what, as it became more noticeable and more obviously characteristic of the author, reduced my admiration for his later books. I regret it, I can see—and Mrs Bedford makes it very plain—that he was a highly intelligent man; a highly erudite man, easily spanning the two cultures (though not much like a scientist); and in a distant, gentle way a very nice man. But the throb of life in him seems to me to have been weak. (One could link that with vulnerability, first to disgust-with-life, and then to escape-from-life into mystical states.)

I go into all this because—another heretical notion-the quality of a biography seems to me to take something from the quality of its subject. The biography of a man in whom the throb of life is weak is likely to have, as it were, lost something before it begins. Furthermore, Mrs Bedford has to cope with most of Aldous's papers having been lost in a fire: it means that an unusual amount of the book is built from what people have told her about him or written to each other about him. That's not necessarily bad—far from it. Gossip, as C. P. Snow has remarked, lies at the heart of novel making-just think of Dostoievski's and Proust's if you doubt it. Mrs Bedford's book has exactly the flavour of close, cosy, penetrating gossip which gives it the immediacy of life. (Incidentally: because so much of the book's material comes from Aldous's wife, Maria, a strong and interesting character, the biography is almost as much hers as Aldous's.)

But I insist that now is not the time to judge the book, when it is only halfway through. Mrs Bedford's primary aim is not to "evaluate" Aldous as a writer, but to draw a portrait of him over the whole of his life; so we simply have to wait to the end. Already one can see her laying the trail, in this volume, of her own perceptions and interpretations to come. But how she will end the book remains to be seen. The story we already know-a sad, sad falling away of a brilliant mind into its own negation: a sad falling away from the outwardlooking discipline of rationality to soft, inward-looking experience hallucinogens. What can she say? It will be fascinating to see.

WILLIAM COOPER

## Game of Chance

The Life Game. By Nigel Calder. Pp. 142. (BBC: London, November 1973.) £2.50.

THE theme of this book is evolution: though the author describes a wide range of biological research, it is unified by constant reference to the random events, in the form of mutations and of association of molecules and cells, which are followed by the evitable selection.

"The individuals produced by breeding are the various 'plays' or 'moves' of the gene pool which may succeed or fail." Nigel Calder, who also wrote the television programme *The Life Game*, collected much of the information in the book by interviewing the leading researchers in the fields he discusses.

He describes Darwin's theories and neo-Darwinism, and has much to say about Kimura and the neutralist opponents to Darwinism. He then gives an outline of evolution, from hypotheses about natural selection of macromolecules before life began, to Richard Leakey's finding last year in Kenya of a very old and very large human skull which may alter ideas about early Homo. The range is wide: Bonner's work on the genetics of nematode worms' nervous systems, Margulis's theories about the bacterial origins of organelles, and the information that geophysics can provide about the separation of the primates in Africa are all discussed. Though the first chapter seems designed more to whet the appetite than to inform systematically, the rest of the book is logically constructed.

No knowledge of biology is assumed. The function of DNA is described adequately without any reference to its chemistry, though a diagram without a legend (page 14) does not enlighten further. Work on spatial information in multicellular organisms is also bravely and quite successfully tackled. An electrophoretic gel is described as an electric racetrack, and the primaeval soup was "about a third as strong in its concentration of organic material as Knorr's Chicken Bouillon".

Although so much detail is left out. the book is very rarely misleading. In some cases it fills gaps left out by conventional genetics textbooks. Thus excellent photographs illustrate the point made that humans cannot be morphologically classified into nonoverlapping races. Some confusion between gene loci and alleles seems. however, to have been the origin of the statement that "a brother and sister . . . differ genetically more than the human species differs from chimpanzees". And although both sides of most arguments are given, Cavalli-Sforza's map of human migration round the world, based on gene frequencies, is offered uncritically with no mention of genetic drift (described later) which many believe makes such reconstructions impossible.

The book is certainly an excellent source of information about modern biology for the layman; but it is so up to date (Maynard Smith's conclusions on animal conflict, Nature, 246, 15; 1973, are described) and so wide ranging that most students of biology will find at least an intriguing new morsel of information in it.

GILLIAN MOORE