IN BRIEF

Reactor choice soon

Consultations held by Britain's energy minister, Mr Anthony Wedgwood Benn, on the country's choice of thermal nuclear reactor, are drawing to a close now that most submissions from interested parties on the subject have been received. A decision is expected before Christmas.

The latest submission on the issue has come from the Trades Union Congress (TUC), representing Britain's labour movement. Its fuel and power industries committee wants the immediate ordering of an AGR station with another later, and a major effort to work up a detailed and acceptable PWR design before a decision on a third station is made. The committee also supports the construction of a demonstration breeder reactor and of expanded reprocessing facilities at Windscale.

Last month the country's two main electricity boards, the CEGB and SSEB, submitted their views to the Department of Energy. The department has also published virtually in full the report of an assessment of the three reactor types under consideration by the National Nuclear Corporation.

ACORD members named

The chairman of the UK Science Research Council (SRC), Professor Geoffrey Allen, has stepped into another appointment recently vacated by his predecessor at SRC, Sir Sam Edwards: membership of the Advisory Council on Research and Development for fuel and power (ACORD). Dr Joseph Gibson, the board member for science at the National Coal Board, joins ACORD as NCB representative.

ACORD, with 10 longer-serving members drawn entirely from industry, will shortly have to take a serious decision: how to advise Benn on the Severn Barrage schemes for tidal power, which will help to energise Britain but may radically alter the ecology of her greatest estuary.

SA's nuclear optimism

With the controversy over South Africa's nuclear intentions still volatile, the president of the South African atomic energy board, Dr Ampie Roux, has said that if the United States cuts off supplies of nuclear fuel for the Koeberg nuclear station north of Cape Town, his country's uranium enrichment process could ensure supplies within a few years of the station's start-up date in the early 1980s. Dr Roux also said that South African uranium output would increase to make her the West's second largest producer after the United States.

On sociobiology

THOMAS H. JUKES

SOCIOBIOLOGY seeks to explain that human social behaviour has a genetic, and, therefore, an evolutionary background, which has long been obvious for other orders of animals, especially the *Hymenoptera*. Against the acceptance of this concept is the fact that many people dislike being compared with monkeys and object even more to being told that they resemble insects.

I am becoming increasingly nervous about my behaviour being the result of millions of years of evolution, a conclusion I have to reach if I embrace the teachings of sociobiology. The thought puts me on my mettle; I should try not to let my genes down. My behaviour is a rather poor illustration of a progressive evolutionary process, but the sociobiologists say that social evolution may indeed be occasionally reversible. Other nagging questions assail me: should I obey my impulses because these promptings are the result of inherited patterns of mental processes? Or should I suppress these impulses in the biological interests of benefiting my group? Or should I try to shape up so as to be a survival machine for my genes, which, says Richard Dawkins, "swarm in huge colonies, safe inside gigantic lumbering robots, sealed off from the outside world . . . their preservation is the ultimate rationale of our existence . . . "?

In any case, the subject of sociobiology merits attention because Dick Lewontin dislikes it, and he is a man of strong convictions on important issues. Moreover, perhaps sociobiology could be an interesting challenge to the pan-selectionist school of evolutionists, who object to the proposal, made by the so-called 'neutralists', that amino acid replacements in homologous proteins of different species are often changes that have no effect on the properties of the protein, but are incorporated by genetic drift. The neutral model also says that many mutations are deleterious and are rejected by natural selection, and a few become accepted by a species because they are advantageous.

The opposing view states that each amino acid in a protein must have a unique survival value in the phenotype of the organism. Would ethologists extend this general principle to behavioural phenomena? Perhaps the idea of neutral hereditary changes could be extended to explain certain habits that have little to commend them, or it could even account for harmless quirks that have no particular bearing on our survival as a species. A leading sociobiologist reassuringly says that only about 10% to 15% of human social behaviour is genetically based, but I don't know what has led him to such a quantitative assessment. The same author says, "The hypothalamic-limbic complex antomatically denies . . . logical reduction by replacing it with feelings of guilt and altruism". In other words, our emotions, which are part of our inheritance, prevent us from reaching conclusions based on logic. This is a facile way of disarming criticism, of course.

It seems to me that sociobiology aggravates its opponents by the ingenuity with which it produces explanations to make observations fit a theory. To a considerable extent, pan-selectionism has done the same by finding an adaptive advantage for each phenotypic trait. We are told that even the hair-pattern on our backs was selected by evolution in our ancestors to help shed the rain as they crouched on the branch of a tree during a tropical storm.

Perhaps those who disbelieve and spurn sociobiological teachings may be responding to a genetic trait. The struggle against pre-ordained fate could in itself have a survival value. This struggle may include the rejection of theories that tell us we are in the grip of determinism imposed by our genes.