

grammes. It is only honest to admit that comparatively little thought has been given to this intricate question, which even the Space Science Board has dodged. One sign of a programme in which scientific objectives were at the head of the list would be that the launching of a rocket would be planned only after the scientific objectives had been accurately established. Almost inevitably, such a requirement is bound to imply longer intervals between launchings, as the academy's committee suggests. It should also imply, however, a more direct involvement of scientific people in the planning of individual rocket flights. Is it entirely fanciful to ask that NASA should delegate this part of its forward planning to an independent group of scientists, able to form a more adequate bridge than any now available between the rocketeers and the academic community? That, certainly, is the only direction in which a more harmonious relationship can be established.

There remains the question of NASA's preoccupation with other kinds of objectives—the development of durable laboratories in orbits about the Earth, rocket engines which can be used a second time and the whole paraphernalia of what is called space technology. First, it is only just to acknowledge that the development of communications satellites has been a great boon, and that there may be yet further benefits to be obtained from activities like these even though the cream may have disappeared from the milk. In other words, there is probably a case, outside the framework of the National Academy's latest report, for spending a substantial part of NASA's budget on the development of several technical innovations. The danger is that enthusiasm for these ventures, often exceedingly insubstantial, will continue to distort the pattern of activity. Just what, after all, are likely to be the benefits of constructing habitable satellites which remain in orbits about the Earth for days on end? Are they means to an end, or simply an end in themselves? It is understandable that the academy's latest statement should have been concerned almost entirely with scientific considerations, but this is too narrow a platform from which to seek to remedy all the defects of the American strategy for rocket flight by people.

OXFORD DEGREE

Trouble for Human Sciences

THE Oxford human sciences course, recently hailed as a triumph in the unification of disciplines, has come up against opposition which threatens to prevent it coming into being next year. Forty-four dons, largely from the humanities, and including seven senior tutors of colleges, have signed a resolution asking the University Congregation to withdraw the decree which would set up the new honours school. The principal objection seems to be to the diversity of subjects involved, which they feel is incompatible with a strict academic training for young people of eighteen to twenty-one.

The latest development seems to be a continuation of the opposition that has faced the supporters of the

new course for the past several years. They insist that the new course, bringing together related topics from the biological and sociological sciences, will not sacrifice intellectual depth in spite of its diffuse appearance. But the forty-four opponents are not convinced.

One of the signatories of the resolution, Dr F. V. Price, a nuclear physicist, feels that, although it is a "perfectly splendid idea" to bring together all the topics concerned with a human being's reactions to his environment, such a course would be too much for an eighteen year old to assimilate and benefit from. The need to study so many different subjects, he feels, will prevent the achievement of the primary purpose of an undergraduate education, which is to train a young mind to sift and analyse information, not just to absorb it. Dr Price thinks that human sciences are probably better suited to postdoctoral study by people already thoroughly trained in one of the disciplines concerned, or that a BPhil course in human sciences would be appropriate for certain graduates.

Professor J. W. S. Pringle and his colleagues, who planned the new honours school, do not of course accept these criticisms, pointing out that other joint schools—philosophy, politics and economics (PPE) and philosophy, psychology and physiology (PPP)—faced similar opposition when they were introduced. Academic change seems to be won hard in Oxford, with its traditions of specialization.

There seems to be no opposition among zoologists or botanists, whose apparent preoccupation with plants will not prevent them from participating in the teaching of genetics and human ecology. Some physiologists, however, seem to be worried, perhaps because they foresee medical students deserting their own subject for the new course. Both sides are mustering their forces for the debate in congregation on November 18, when the opposition has to gather at least seventy-five votes to have the decree withdrawn.

AGRICULTURE

Agricultural Revolution (1970)

A BILL, outlined in the Queen's speech and published last week, sets out major changes in the organization of British agriculture. These changes are intended to improve the egg marketing system, to simplify the method of paying capital grants for agricultural business, to reorganize smallholdings, to bring up to date the law relating to the sale of fertilizers and feeding stuffs and to encourage the setting up of improved flood warning arrangements. Other legislation included in the Bill provides measures to give greater security of tenure to occupants of agricultural tied cottages and to improve the safeguards for animal health.

An Egg Authority is to be set up to take over many of the functions of the Egg Marketing Board (which will become defunct) and it will be blessed with several other responsibilities which are mainly intended to help phase out the system of guaranteed egg prices and subsidies in favour of a free marketing arrangement. The Egg Marketing Board at present guarantees producers a minimum price, based on the famous Annual Review, and it provides subsidies to prevent the wholesale price falling below nine per cent of this figure. This guaranteed price system will be phased out by March 31, 1974, and the Egg Marketing Board