It is also hard to see why the Dainton Committee did not put forward more positive proposals for the reorganization of the research councils. To be sure, there is much to be said for providing a framework within which a suitable organization can evolve, but one of the most obvious defects of the system which now exists is that some of the research councils are demonstrably better able to justify a claim on public resources than are others. The Science Research Council has an essential role in higher education, while the Social Science Research Council has an important intellectual job to do in trying to cultivate respectable social science in Britain. Both the Medical and Agricultural Research Councils are divided between basic and applied research, with the basic research less well connected with the universities than it might be, sometimes because the universities play dogs in the manger. The Natural Environment Research Council, by comparison, spans a diversity of interests and objectives which are often indistinguishable from the interests of the other councils. In the circumstances, it would have been a powerful argument in its favour if the Dainton Committee had been able to suggest some of the ways in which the new supervisory board might have set about the removal of some of the anomalies which at present tarnish the research council principle as it is called.

To say all this does not imply that Lord Rothschild's proposals are the only alternative. To be sure, they do ingeniously provide a way in which three of the five research councils can marry basic and applied research, financing the first from what they can wheedle from the Department of Education and Science and the second from the government departments that would act as customers under the new regime. The difficulty, of course, is that nobody can be sure how this would work in practice. Undoubtedly it would be good for the departments if some of the cockiness of the research councils were to rub off in the more sober corridors of what passes for power in the Scientific Civil Service. At the same time, there is a danger that the departments would use the freedom which the Rothschild proposals would give to build up their own research establishments at the expense of perfectly good establishments now in the control of the research councils. Why, for example, should the Ministry of Agriculture pay the Agricultural Research Council for research on plant breeding when it can expand those of its own establishments already active in the field?

A more serious objection to the particular scheme which Lord Rothschild has put forward is that it would tend to institutionalize some parts of the pattern of research within the research councils. The Dainton Committee is, after all, correct in saying that the research council system is flexible and that it could be made more flexible. Once departments are blessed with a block grant for research each year, there is a danger that it will be harder to raise fresh money for applied research in novel fields. But the Rothschild proposals offer no solution to problems such as that posed a week ago by the House of Commons Select Committee on Science and Technology-how best to spend large sums of money on applied research of a kind likely to benefit the computer industry? The failure of the Rothschild Report to deal with questions like this—the questions on which Mr Anthony Wedgwood Benn's green paper foundered two years ago-is one of its most obvious weaknesses. Another is that defence research appears to have been outside the scope of the inquiry.

In the circumstances, it is hard to predict just how the debate will go. The government has endorsed the doctrine of customer and contractor, but that is entirely understandable and in part, at least, something of a formality. Because the future of the Agricultural Research Council is now acknowledged to be the occasion for the present flurry of reorganization, it would be good to think that before the issue is finally decided, it will be more readily apparent how the proposed schemes for reorganization would affect the detailed operation of that research council. Precisely how has Lord Rothschild calculated that £14.5 million of the present budget might be transferred to the Ministry of Agriculture? That is the information needed in the weeks ahead if the wide debate is not going to be a wild sparring match.

It is also important that any new scheme for the administration of civil science should be tried out cautiously. This is a scientific issue, and a few experiments would not be entirely amiss. After all, a good deal of experience would be needed on both sides before the putative customers in the government departments would be able accurately to formulate their demands, and before the contractors in the research councils would be able to respond perceptively. So is it not clear that the first step in implementing Lord Rothschild's scheme should be a carefully controlled attempt to hive off to the Ministry of Agriculture financial responsibility for some (but not all) of the Agricultural Research Council's present responsibilities in applied research? For all their faults and there are not many—the research councils play too important a part in British scientific life to be dealt with precipitously. But such a change, on a modest scale, would be a useful experiment even for the Daintonites to encourage.

100 Years Ago



M. Joly, a distinguished member of the French Academy of Medicine, has recently read a paper before that learned society, in which he attributes the enervation of the nation, as evinced during the late war, to the combined effect of alcohol and nicotine upon the national character. "Tobacco," says Dr. Joly, "although of only recent introduction, has gained upon its older rival. Imitativeness and 'moral contagion' have done their work, until the use of this poison has penetrated everywhere—has enslaved the nation, caused personal and racial degeneracy, enervated the entire army, and made it slow to fight and powerless in action. The use both of spirits and tobacco has frightfully increased, and human depravity could scarcely devise a worse compound than the mixture of brandy and tobacco, which is the latest liquid novelty patronised by Parisian sensualists. The French consume more tobacco than any other nation."

From Nature, 5, 89, November 30, 1871