ACTION RESEARCH

1. Essentially this means experimentation under field conditions: that is, the intervention is planned but the context continues to operate as normal. Under laboratory conditions the context would be held constant or aspects of the context systematically varied in a controlled manner.

2. In the social sciences the study of purposive behaviour will usually create the need for field experiments. 'Usually' because a body of knowledge has to be built up before aspects of purposeful behaviour are clearly enough identified to permit the desgin of laboratory experiments.

3. Before field experiments can be considered it is necessary for there to be intensive observational studies, interviews, surveys etc to enable the development of explanatory hypotheses. By close study of events of the kind we hope to be able to produce (or prevent) in a planned manner we try to infer, retroductively, the necessary and sufficient conditions for those events to occur. Our hypotheses are about these conditions.

4. In designing the field experiments we are usually forced to focus only on those sufficient conditions that can be manipulated, and on ensuring that the necessary conditions are present in the experimental site. Thus, in our industrial field experiments we avoid sites where the industrial relations record indicates a basic lack of trust between employees and management. Some degree of trust seems necessary for both parties to cooperate in redesigning work.

A great deal of the scientific work that I have done is what was termed "Action Research". The Tavistock Institute of Human Relations was at the forefront in developing this field of Action Research in the post-war years. We went to considerable lengths to ensure that this research was defined so as to conform, as close as possible, to the accepted logic of scientific experimentation.

Today, I find a resurgence of interest in Action Research but I find it disturbing. This new wave of action research flaunts its break with the logic of scientific experimentation. The logic that the exponents of this new wave take as their guideline is the logic of the rational democratic dialogue, as spelt -out by Jurgen Habermass, a German professor of social philosophy. In this new framework action is incidental, almost accidental, to the dialogue. The actions taken as a consequence of the dialogue are supposed to confirm or disconfirm the agreements reached in the dialogue. The consequences of the action are irrelevant to this sort of action research. The consequences could be due to all sorts of uncontrollable circumstances. The main thing is to confirm that the actions following the dialogue were taken in good faith. In the old Tavistock model of action research there was dialogue but this was dominated by the action and the consequences of the action. The dialogue was dominated by negotiating actions that might produce the desired consequences Hence the importance we attached to approximating the logic of scientific experimentation. We were very concerned that there could be minimal disagreement about the inferences that could be drawn from the consequences of the action.

I do not wish to go into the arguments of Habermass and the French post-modernists for the primacy of discourse and the dialogue. I do think that there is some relevance in discussing why the practise of action research diverges from laboratory centred experimental research. That is, I wish to discuss the older version of action research that regarded itself as an extension of science ,not as an alternative.

The aim of that kind of action research was that of science in general. That is, to isolate our chosen unit of study and to observe and measure reactions to systematically varied conditions. For the social systems our units of analysis were individual organisms, organisations or collections of either. The first and obvious difference from chemistry, geology etc was that our units of study were goal-seeking and purposive. Unlike chemicals and rocks people had their own ideas about what they would submit to and what conclusions they wanted to be drawn from studies of their behaviour. They could dissimulate, lie, cheat or just play doggo, in ways we that never to be found in the study of rocks or chemical substances. The social sciences dreamt up many sneaky ways to outwit the people and organisations they were studying. Projective tests of personality, like the ink-blot tests, methods of participative observation, use of one-way mirrors for small group studies and content analysis of documents were at the centre of professional concern in the nineteen forties and fifties. These developments lent an air of sophistication to the social sciences. Other social scientists sought to avoid the problem altogether by working with organisms that were thought to be incapable of such deceptions ie with rats, pigeons and little children or with the multi-variate analysis of data from large aggregates of people who could not possibly have gone into collusion to deceive. We believed that the social sciences faced a much deeper problem than this. It had been assumed that the person was something within the skin and the organisation was the thing inside the organisational boundaries. We found that that assumption was grossly distorting the facts as we encountered them. Organisms and organisations had evolved so that they were adaptive to special niches and habitats that were a tiny sample of possible habitats in the physical world described by the astronomers, physicists, chemists and geologists. The unit of analysis that we should have been taking is the O-E unit; the organism Dr organization in its environment. By this we meant that, Behaviour = $f(O \times E)$; not some O is introduced to inter-act with E to subtract Dr add to it; nor, vice versa, that O is exposed to various E's that block Dr elicit some behaviours. We were proposing that the mutual determination of O and E was where we should seek explanations of the observed behaviours. For questions of memory we should be asking 'not what is in the head but what is the head into', for questions of visual perception we should be asking not what is in the eye but what is the eye being put up to.