BOJE, G.A. Interview for J. of Technology & Mgt. 7th Jan 1997.

1 (a) My perception of social science was transformed. I found, with the help of Eric Trist, that we had the concepts to design and experiment with totally new forms of work organization. Just prior to this study leave at the Tavistock Institute of Human Relations I had completed the field work and manuscript for my first book (Personality & Social Structure in a Rural Community, London, Routledge & Kegan Paul, 1954). I was very dubious about continuing in a career in a social science that was limited to observational techniques.

1 (b). The matter was then at the center of social science concerns (and frustrations). I had no doubt about the potential significance.

1 (c) As we struggled to develop the theory and methods of socio- technical systems analysis we had no inkling that they would become a barrier to diffusion.

2. Once single, minimal skilling and close supervision were regarded as the hall-marks of so-called scientific management. Now, where ever you turn the buzz-words are multi-skilling and team work.

3.a. the design and introduction of the Method of Participative Design, 1972.

b. the movement from 'semi-autonomous work groups' to self-managing work groups, 1976.

c. the combined workshop on the Search Conference and Participative Design. Merrelyn Emery, 1991-2.

I have not made a song-and-dance about the re-structuring of white collar and knowledge workers. That had been solved before we published on participative design and the partial skilling solution.

4. (a) A purposeful system uses four parameters to make decisions. The abstract economic model of decision making use only two of that four. Dropped are the parameters of Probability of Choice and the derivative Prob. of Outcome. Prob of Choice refers to the fittingness of a change to the choosing system and Prob. Outcomes refers, essentially, to whether the change can be lived with. Unfortunately the economists' abstract model of choice leads to attempts to automate those very things that humans are better equipped than machines to do. When that happens we know we have been mistaken in our choice of technology.

The most pervasive error in modern technology, in industry and social life, has resulted from the TV engineers adopting the standards of 'good vision' that have been recommended by experimental psychologists. Those standards have arisen from the assumption that perception is a combination of passive sensation and active mental interpretation. If the engineers provide clear sensations then the rest is up to the viewer, and what he/she brings to the viewing situation. Like other academics the psychologists are under constant teaching pressures and hence prone to dogmas. Unfortunately perception is a direct and active process. Immediate sensations are irrelevant and 'mental' interpretation superfluous. It is a pity that engineers stuck to the text-books.

(b). STS is unlikely to forget its social reference unless it forgets the six criteria in the search for joint optimisation. The social reference can be severely attenuated if, in the diffusion stage, it is forgotten that success is dependent on social willingness to listen and actively adapt recommended practices to their particular circumstances.

5. I hope that it will be recorded that most of the advanced nations have transformed their work-forces from the traditional mass of under-skilled persons employed under close supervision to multi-skilled workers in self-managing groups. My fear is that we will balk at the jump.

My partnership with Merrelyn is a topic for another day.

F.E.

P.S. You did not ask why Thorsrud and I drew such a sharp line between the experimental phase and diffusion. Certainly STS, US, has nothing to do with the first phase; it has to do with diffusion by command. In the beginning of the first phase we were much concerned that technology limited the range of organizational choice. By the last studies we realized that not only were the interfaces converging as industries were automated but the critical question was location of decisions about control and coordination. Technological analysis was necessary but not sufficient.

Supplementary questions and answers.

Supp. to Q1. "Could you say more about 'we had no inkling that they would become a barrier to diffusion'?

We were required by our first agreement with the Norwegian leaders to establish whether semi-autonomous group working was, or was not, a real POSSIBLE alternative to the traditional authoritarian direction of work. That question was uppermost in their minds as they knew from their own experience of nothing but the traditional. This was prior to any question of probability. The national leaders saw that this was a judgment that they would have to eventually make. Hence they were very active in selecting the sites for the field experiments and unstinting in funding the closest possible controls and monitoring of the experiments