5 Automation and Inertia

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5.1 Change and profitability

The aspiration for profitability is the fundamental driving force behind changes in industry, and many different measures are taken to reach profits. Companies steadily strive for improved product quality in order to satisfy the wants and needs of customers, thereby hoping for increased market shares. In many industrial production processes it is profitable to make investments in new techniques that make production more rational in terms of increased flexibility and higher efficiency. Therefore, many arguments for industrial change are based on technical aspects.

At times, however, managers use social arguments for industrial change. In Sweden socially based arguments were used during the 1970's and 1980's, emanating from work force related problems of that time, such as high costs for recruitment, high sick leave and high labour turn over rates etc. These problems in turn, were generated by low job satisfaction and, consequently, low commitment to work for the employer.

Both technical and social arguments have been used in favour of automation. On one hand, technical means are primarily used to solve technical problems, but technical change strongly affects the social structure of an organization, a fact that is not sufficiently taken into account in investment planning. On the other hand, social means are mostly used to solve social problems only. However, during the last decades a process has started in Swedish industries, wherein technical and social arguments in combination are used for investments, so that work organization is consciously changed when production is automated.

Automation, i.e. development of new techniques and implementing them into factory life has been a useful means for improving productivity and efficiency in
industry. However, problems in the automation process often arise, and it does not matter whether the arguments for change primarily is of technical or social nature. Whenever social factors are not seriously taken into account and when they are not amalgamated into the technical side of the implementation of a technique, one major problem arise, namely that the pace of change often is much slower than intended. The aim of my paper is to penetrate the inertia in processes of change by reflecting over a lengthy automation process in a car body shop. I will start with presenting a model for change that pinpoints the need for social embedding of automation processes.

5.2 A model for change

Even though great technical innovations have shown to be important means to increase profitability, the individual biographies built upon former experiences of the actors involved influence the process of change in a very powerful way. Thus, when it comes to the social management of technical change one handling strategy for managers emanates from their assumptions about what the actors involved know from experiences in the past. This is a convenient strategy as many things then can be taken for granted. If, for example, a new machine may be approached by middle managers and workers according to their old way of acting and being in the organization, even a huge technical change may be successfully implemented without big planned social changes, as it will work satisfactory anyway. In such a situation, decision makers and other people implementing the technical novelty make the process of change smooth because the social consequences of the change are perceived as limited, as people's conceptions, the organizational rules and its structure may remain more or less the same as before.

Generally my model of change leans upon the assumption that people orient themselves to a new technical situation as good as they can by means of milestones in their experiences from their own biographies. If this biography bound strategy of managing changes is not taken into consideration, the full potential of the new technique cannot be utilized. Hence, in industry, the past is embodied not only in the existing plants, but also in the minds of the managers and employees, and it is very difficult for managers to introduce radical social changes, especially in a traditional, hierarchical organization, where the employees' conceptions of production routines are fixed and cemented.

There are some situations, though, when big changes, social and technical, may be more easily introduced: First, if either societal or internal factors put the firm in a very threatful situation, a firm may be forced to make big changes. Second, if the company is very profitable and has a lot of money to spend for