

have been subjected to two large scale social processes that have affected practically all of the modern world of work. I refer here to (1) the process of professionalization and (2) the process of bureaucratization.

The process of professionalization, which has been most systematically investigated in its historical perspective by the English social scientist Professor A. M. Carr-Saunders, has affected many modern occupations, including the various scientific occupations.⁸ Whereas scientists were essentially amateurs at one time (for example, in the days of Benjamin Franklin), they have now become organized into professional groups. These more professionalized occupations are characterized by (1) highly specialized intellectual skills based upon training in a general body of underlying theory, (2) formal occupational associations that control entry and develop codes of ethics to govern the occupationally related behavior of members, and (3) general community recognition of the special occupational status of professional members, often resulting eventually in some form of certification or licensing. Professionals develop rather strict standards of behavior, but their behavior is commonly controlled by mechanisms that are deeply impressed into the personalities of professional people. They learn these standards through the long training period that leads up to their professional degree, and most often through advanced degrees in the case of scientists. Before they are ever allowed to practice their profession, other full-fledged members of the profession have numerous opportunities to judge whether or not each individual has internalized appropriate standards of professional behavior in a satisfactory manner.

Since professionals are trained to respond primarily to internal standards of control in professionally appropriate ways, they tend to resist external controls from sources outside their particular profession in a work situation. Having proven their professional competence and compliance to those whom they have been taught to respect and emulate in their profession, they are likely to seek jobs that allow them a high degree of individual professional expression and opportunity to move from one position to another and from one organizational context to another in ways that will further these deeply ingrained professional interests and aspirations.

Also it is well to remember that persons trained in different professions tend to differ in the kinds of values and standards that they acquire. For example, one study has shown us that physiologists
