Professions in America

Professional Powers. A Study of the Institutionalization of Formal Knowledge. ELIOT FREID-SON. University of Chicago Press, Chicago, 1986. xviii, 241 pp. \$20.

Professions and professionalism dominate much of modern life. So familiar are credentials, associations, and examinations that the organization of pure and applied knowledge seems incomprehensible without them. In Professional Powers, Eliot Freidson steps back from this familiarity to examine the institutional structure of professions in America today, at the same time bringing recent theoretical debates about professions down to earth. What, for example, does it mean to say that professionals are becoming "proletarianized?" Considering all the data, is there in fact more evidence on one side than the other? Asking and answering such deceptively simple questions, Freidson addresses most of the important problems in the sociology of professions: What is a profession? Which occupations belong in the category? Are "professionals" simply a census category, or are they a distinctive group, perhaps a class? What are the basic credentials of professions and how are they handled by the legal system? Are the professions in decline? Are professions being undermined by organizational employment? Do the professions exercise undue power in the political system? Freidson works steadily through these questions, drawing widely from materials in sociology and the other social sciences, as well as from the professions themselves.

The book can best be appreciated in light of the current situation of theory about professions. In the postwar period, there have been two basic theoretical approaches to the professions. The "functionalists" have seen the professions as social embodiments of abstract knowledge, emphasizing clients' trust in professionals and the independence of professional knowledge from external determination. The "monopolists" have portrayed professions as market groups using their control of knowledge to gain wealth, power, and status from society; professional knowledge might directly reflect political considerations. (Although generally the political lines have been clear—monopolists were the '60's rebellion against the conservative functionalists-so eminent a conservative as Milton Friedman has long taken the monopolist position.) Both the functionalists and the monopolists have worked at a very theoretical level, using data more for

mustration than for verification or theorybuilding. In contrast, Freidson comes from an empirical and inductive tradition, the Chicago school of Everett Hughes. His earlier books on medicine, although generally claimed by the monopolists, used a variety of techniques—observation, case study, descriptive statistics—to build a general picture of "professional dominance." Thus it is natural that, in his first book-length treatment of the professions in general, Freidson should bring a critical, empirical eye to bear on the excesses of recent theory.

Typical of this critique is Freidson's analysis of the "question of professional decline." He elegantly separates decline into the twin problems of loss of client trust on the one hand and loss of independence on the other. A careful examination of antitrust legislation and enforcement calls in serious question the loss-of-trust argument, and a thorough interpretation of census figures, combined with a thoughtful theoretical discussion of self-employment and of the new professional corporations, undermines the case for loss of independence. Freidson is unfailingly courteous to all parties in these debates and leaves the reader firmly persuaded of the complex ambiguities of current professional institutions.

Unlike many authors, Freidson is refreshingly blunt about the limits of his book. He aims, he tells us, at analytical description rather than theory. He focuses on American professions rather than professions in general. He emphasizes the present rather than the past. For many specialty students, these emphases are problematic, as Freidson is aware. The unresolved theoretical debates of the last 20 years cry out for a theory of professional development that can articulate profession-as-knowledge with professionas-power, and Freidson, long the dominant American writer on professions, seems uniquely situated to provide the theory. Similarly, the rich studies of both contemporary and past professions in Europe seem to require recasting our very notion of "the category of profession." While Freidson argues effectively that profession may best be considered a "folk concept," properly used only in the United States and Great Britain, in fact many of the controversies he discusses involve the increasing resemblance of American professions to their Continental counterparts, and the decision to exclude these, while improving the accuracy of the American description, forgoes an opportunity for theorizing the "institutionalization

of formal knowledge." Finally, the last 20 years have seen the appearance of dozens of historical monographs on professions, which provide an incomparable resource for social thinking on the subject, and use of this scholarship could have helped extend Freidson's analytical description of the present.

Omissions that may dissatisfy specialists will, however, make the book more attractive to the general reader. Such readers will find here an excellent description of the actual, present situation of professions in the United States. It is a description unclouded by theoretical allegiances, correcting many of the empirical misconceptions of past theories. It offers a sound basis for policy thinking about professions, telling in clear detail the actual status of current policy. In short, Freidson's book is a concise introduction to the professions, challenging specialists with its puncturing of theoretically induced misconceptions and offering general readers a clear but critical entrée to the theoretical literature concerning this central aspect of modern society.

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Issues of Public Service

Universities and State Governments. A Study in Policy Analysis. IRWIN FELLER. Praeger (Greenwood), New York, 1986. xviii, 171 pp. \$32.95. Praeger Special Studies.

This study examines the troubles that arise between state government and institutions of higher education when the state seeks help from its universities in framing public policy. These troubles have their deepest roots in the states' expectation that, in addition to their teaching and research activities, universities—especially public institutions-will also provide services to the states in which they are located and from which they derive financial support. More specifically, many governors, legislators, and other state officials have long been puzzled as to why the enormous resources that states pour into institutions of higher education do not generate in return a greater willingness on the part of university personnel to help the state deal with the varied problems it confronts in such areas as environmental pollution, welfare dependency, or crime control. Why should the chief source of expertise in a state be of so little use in coping with issues that increasingly seem to demand the help of experts for their solution?

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As Irwin Feller's study demonstrates, the answer to this question lies in the fact that, although they work in close geographical proximity to one another, there is a very long distance between the culture in which state policy-makers operate and the milieu in which university professors to whom they may look for help function. The policymakers inhabit a world in which great pressures exist to find quick answers to questions for which we may not yet have very good answers. The university's professors, on the other hand, are members of professions that provide recognition and status for finding answers to questions that the profession regards as important, even though the world at large may not share that opinion.

This is hardly a new problem. Universities, private as well as public, have been wrestling with it in the United States since most of them came into existence. What gives Feller's study its greatest significance is the fact that it is focused on one decade—the 1970's—when there was widespread acceptance of the idea that universities ought to be more involved in solving the world's problems. If a university was not part of the solution it was part of the problem, in the cliché of that day. Many members of the professoriate then began to feel that they should make themselves useful as well as ornamental, and a certain amount of guilt emerged on campus over the ivory tower immunity of the university from the ills of

However, from the evidence that Feller has gathered, the 1970's produced no breakthroughs in the relationships between state government and state institutions of higher education. Even in this very propitious climate of opinion, successful cooperation between states and their universities in coping with policy problems hardly became commonplace.

Feller does identify several interesting experiments at linking the expertise of universities with the needs of the state for assistance in policy-making that were undertaken during this period. In California a Policy Seminar was established to bring university professors and state officials together in order to forecast and find ways of coping with problems that loomed ahead on the state's policy agenda. In Iowa a Legislative Extended Assistance Group (LEAG) was set up and enjoyed modest success in promoting research by faculty members as well as informed discussions with state legislators on a variety of problems the state faced. In Pennsylvania a Legislative Office for Research Liaison (LORL) began to play a leading role in finding faculty members who could help state policy-makers—particularly on scientific and technical issues. Similar

arrangements were set up in Illinois and Maryland. Finally, in 1978 the Ford Foundation initiated a State Environment Management Program (SEMP) that funded a variety of projects around the country involving cooperation between states and their universities.

All these programs were affected by the difficulties that have long plagued the relationship between the state and the university. From the state's point of view, university researchers do not always address the specific problems the state faces or offer very practical remedies for them. From a university faculty perspective, a heavy involvement in "localistic" research may be costly in terms of career prospects and tenure. But, as Feller indicates, the modest successes achieved in this area in the 1970's may provide precedents for building stronger relationships in the future. The evidence also suggests that there needs to be greater awareness on both sides that the relationship will always be a thorny one. If the partners in the relationship are doing their job well, the different imperatives by which they are driven will frequently bring universities and state governments into conflict.

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Aquatic Plants

Phytoplankton Ecology. Structure, Function and Fluctuation. Graham P. Harris. Chapman and Hall (Methuen), New York, 1986. xii, 384 pp., illus. \$45.

Phytoplankton play vital roles in sustaining life on earth, affecting the supply of oxygen and the global cycling of carbon and essential nutrients. Additionally, as first links in aquatic ecosystems, they set upper limits on the quantity of food the sea can provide. In recent years there has been a growing realization that the temporal and spatial scales upon which we have traditionally focused our attention in studying these very small organisms are not at all representative of the real world they must cope with. Harris is a champion of this point of view. He contends that to understand phytoplankton community structure, seasonal and longer patterns of speciation and production, and the dynamics of nutrient-phytoplankton interactions we must recognize that non-equilibrium conditions prevail at the species level. Large aquatic systems often may seem to be at steady state, but such a representation may be an artifact of the averaging processes built into our sampling and measuring techniques. In short, the scales upon which our observations of phytoplankton are made frequently are mismatched with those of the physical and chemical events that influence the ability of phytoplankton to exploit nutrient and energy sources and to grow.

To advance his argument, Harris follows a systematic course in first introducing the reader to some basic concepts of ecological theory, particularly in outlining the historical conflict between equilibrium and nonequilibrium proponents and in advocating the idea that phytoplankton make an ideal model for studying population ecology. Classical population ecologists may argue these points, but there is little doubt that the non-equilibrium concept has become the basis for most of contemporary research in phytoplankton ecology. Thus to the experienced researcher Harris's plea that nonequilibrium theory should be the cornerstone of phytoplankton ecology may seem like unnecessary proselytizing. To the student, however, the ideas advanced in this book will be timely food for thought.

The strength of the book is to be found in the middle chapters that deal with scale, specifically what the important physical, chemical, physiological, and growth scales are that affect phytoplankton growth rates, primary production, and species diversity. Much attention is given to the idea that, because patches of all kinds exist at many scales of interest, competitive exclusion of species in aquatic environments is rare. It also comes through clearly that Harris is a strong advocate of the concept that phytoplankton growth rates in oligotrophic waters are close to maximal and that there is a strong mismatch in the temporal scales of nutrient acquisition and growth in these environments. His treatment of the Redfield ratio as an indicator of the physiological state of phytoplankton populations is innovative and sure to generate additional discussion of this controversial topic.

Currently, there is much debate about the magnitude of primary production in the oligotrophic ocean. Measurements based on long-term accumulation of oxygen in the water column are not consistent with those based on the traditional bottle incubation technique. Harris, while avoiding involvement in the controversy, outlines in clear fashion the problems in relating biological, chemical, and physical scales in confined samples to those in the water column.

The book is well documented with pertinent figures and an abundant and up-to-date reference list. Harris's writing sometimes is a bit verbose, and important points are restated frequently. The last few chapters, dealing