

Segregations

Job Queues, Gender Queues. Explaining Women's Inroads into Male Occupations. BARBARA F. RESKIN and PATRICIA A. ROOS. Temple University Press, Philadelphia, PA, 1990. xii, 388 pp. \$39.95; paper, \$16.95. Women in the Political Economy.

Although our standard statistical indices show that women have become increasingly employed in traditionally male-dominated occupations, the authors of this sociological study argue that women and men workers continue to be segregated into different occupations. Having conducted a more refined analysis of occupational feminization than those based on the standard indices, the authors show that, despite the impressive achievements of the civil rights and women's movements in limiting discrimination in the workplace, women have often entered the lowest-paying subspecialties of male-dominated occupations. Furthermore, the increased participation of women in the labor force that has accompanied the development of a white-collar, service-providing economy in the United States since World War II has done little to reduce the gender gap in wages, in part because of the persistent segregation of women into lower-paying jobs.

Occupational feminization, that is, the process by which women come to account for a larger proportion of employment in a traditionally and predominantly "male" occupation, appeared to proceed rapidly during the 1970s in many occupations, according to changes in the standard indices of occupational sex segregation. The authors selected for intensive case study 14 occupations whose rates of feminization were exceptionally high during the 1970s. These occupations are: accountants and auditors; broadcast and print reporters; book editors; pharmacists; public relations specialists; bank managers; systems analysts; insurance salespersons; real estate salespersons; insurance adjusters and examiners; bartenders; bakers; bus drivers; and typesetters and compositors. During the 1970s, for example, the percentage female jumped from

12.9 to 25.4 among insurance salespeople; from 21.2 to 44.3 among bartenders; from 16.8 to 55.7 among typesetters and compositors; from 12.1 to 24.0 among pharmacists; but only from 38.0 to 42.6 for the whole U.S. labor force (little or no occupational "masculinization" occurred in this era). The data sources for the 14 case studies, which are thoroughly researched and authored by current and former graduate students who have studied with Reskin and Roos, include trade journals and other industrial publications, studies and statistical reports produced by the U.S. Bureau of Labor Statistics and the Census, and interviews with workers in the various occupations. The case studies constitute the empirical basis from which the authors directly derive conclusions about central tendencies and insights about the causes and consequences of occupational feminization, which are presented in four chapters that synthesize the findings.

The book is unique because it is one of the first to analyze systematically the occupational feminization process among a diverse array of occupations. Most social scientific and historical research on occupational feminization has emphasized the feminization of single occupational groups, especially of clerical occupations during the 20th century. More generally, research on gender relations in the workplace has tended to emphasize the factors that segregate the sexes occupationally, rather than the factors that promote occupational feminization.

In order to explain occupational feminization, the authors elaborate on queuing theory, a theory of labor markets that holds that the matching of workers and jobs results from the ranking of workers by employers into labor queues and from the ranking of jobs by workers into job queues. Persistent occupational sex segregation led the authors to develop the concept of a *gender queue*, referring to the employer practice of differentially ranking women and men in the labor queue. This elaboration of queuing theory allows the authors to provide a new depiction of the mechanics of occupational feminization. Occupational feminization oc-

curs with shifts in the ordering of the elements in the queues, in the shapes of queues (the relative sizes of the elements in the queues), and in the intensity of the rankers' preferences for different elements in the queues.

During the 1970s, occupational feminization tended to result from a reordering by employers of the gender queue for those relatively high-growth jobs, many of them in the service sector, whose deteriorating employment conditions led men to exit them. Among the reasons for the deterioration of these employment conditions are computerized job deskilling and technological displacement (as in the case of typesetters); increased economic concentration and the erosion of self-employment opportunities (pharmacists); increased utilization of part-time workers (bartenders); and industry deregulation, which led employers to cut costs and lower wages (bank managers). Occupations also feminized when employers reordered gender queues in order to fill jobs that employers increasingly perceived as requiring workers with such stereotypically "feminine" skills as adeptness in managing interpersonal relations and communications (insurance sales, bank management, public relations, and retail baking); and in order to avoid anti-sex-discrimination action by such government regulatory agencies as the U.S. Equal Employment Opportunity Commission (broadcast reporting, bank management, and public relations). Furthermore, the appearance of new managers, especially women managers, who were more sympathetic to the goal of equal employment opportunity contributed to the feminization of some occupations, such as those in banking, public relations, publishing, and real estate.

This explanation of occupational feminization is innovative in its inclusion of factors that are in the external political and economic environment of the business enterprise and that constrain employer hiring and job assignment behavior. Other explanations, in contrast, have emphasized the impact of processes such as technological job deskilling and increased bureaucratic, managerial control of work that occur inside the business enterprise.

No attempt is made, however, to induce from the case studies a set of testable hypotheses that link the timing of occupational feminization to broader social, political, and economic trends. Why the 1970s and not other decades? Several trends whose confluence distinguishes the 1970s may have contributed directly or indirectly to the timing of occupational feminization during that decade. These include the mobilization of the civil rights and women's movements

during the previous decade, as well as the deterioration of the U.S. position in the world economy, the declining strength of the U.S. labor movement, and growing national political conservatism, which may have compelled and facilitated the hiring of more workers from pools of traditionally cheap labor.

Moreover, little attention is given to the generalizability of the factors that contributed to occupational feminization in the 1970s to other eras in which occupational feminization has occurred. For example, women temporarily entered "male" factory occupations during both world wars, when labor shortages in manufacturing were created by the drafting of the male factory workforce into the military. Comparing the war and 1970s eras could reveal any repeating configurations of social, political, and economic conditions associated with occupational feminization. Such a comparison would also permit an assessment of the factors that affect the permanence of occupational feminization, as well as the factors that regenerate occupational sex segregation following a period of occupational feminization.

The authors show that the occupational feminization of the 1970s fell short of constituting gender integration. Most indices of occupational sex segregation measure the degree of sex segregation in broadly defined occupations. In contrast, the case studies in this book examine sex composition trends in the subspecialties of occupations. Rather than becoming "integrated," with each sex making up half of an occupational workforce and the two performing the same tasks, most of the occupations that were studied became "ghettoized," in that women ended up in the low-paying subspecialties. A few occupations—typesetting and composition and insurance examining and inside adjusting—"resegregated," in that women came to account for a majority of occupational employment. Examples of ghettoization include the occupations of bus driver, into which women entered the low-paying school-bus driver subspecialty; real estate sales, which employed women in the low-paying residential sales subspecialty, as opposed to commercial real estate sales; and systems analysis, in which women tend to be employed as the lower-paid analysts who interact with computer users, rather than the higher-paid analysts who interact with other computer professionals and managers. The U.S. labor force, then, continues to be occupationally segregated, as well as stratified by wages, along gender lines.

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The Perception of Odor

The Vertebrate Olfactory System. Chemical Neuroanatomy, Function and Development. NORBERT HALÁSZ. Akadémiai Kiadó, Budapest, 1990. xviii, 281 pp., illus. \$39.

Lewis Thomas in his book *Late Night Thoughts on Listening to Mahler's Ninth Symphony* noted that "we might fairly gauge the future of biological sciences, centuries ahead, by estimating the time it will take to reach a complete, comprehensive understanding of odor." Since the days of Ramon y Cajal, the striking laminated morphology and complex neuronal circuitry of the olfactory bulb, the first synaptic relay and information-processing station in the brain, have attracted the attention of neuroanatomists and neurophysiologists, and an enormous wealth of information regarding neural circuitry in the olfactory bulb accumulated over decades of research. The perception of odor has again become a topic of widespread interest, and advances in understanding odor recognition and olfactory transduction are occurring at an accelerated pace. This new surge of interest in vertebrate chemoreception is fueled by a series of rapid successes in molecular studies of peripheral mechanisms.

The Vertebrate Olfactory System by Norbert Halász provides a timely, detailed compendium that integrates this vast amount of historic and recent information into a comprehensive description of the olfactory system. The painstaking detail with which different cell types and their connections are described and the more than 1000 references cited attest to the epic endeavor undertaken by Halász in writing this monograph.

The Vertebrate Olfactory System follows the publication of several other books on olfaction, including *Neurobiology of Taste and Smell* (T. E. Finger and W. L. Silver, Eds., Wiley-Interscience, 1987), an excellent introduction to vertebrate chemoreception, and *Molecular Neurobiology of the Olfactory System* (F. L. Margolis and T. V. Getchell, Eds., Plenum, 1988), a series of well-chosen chapters presenting recent promising advances in molecular explorations of the olfactory system. Halász's book differs from these earlier ones in its exhaustive documentation, which renders it particularly useful as a reference work for experts but exceeds the level of general introduction most useful to the novice. Such a reader would benefit from reading *Neurobiology of Taste and Smell* prior to tackling *The Vertebrate Olfactory System*.

Another distinguishing quality of this book stems from its having a single author.

Though this has resulted in a coherent style and viewpoint, it has also resulted in a bias towards the author's own expertise. Of the nine chapters that constitute the work, the chapter describing morphological, immunohistochemical, and electrophysiological aspects of the olfactory bulb occupies almost two-thirds of the book, leaving information on other aspects of olfaction, such as peripheral mechanisms, the accessory olfactory system, behavior, and human olfaction, somewhat underrepresented. This chapter is definitely the strong point of the book. It contains the most comprehensive description to date of the neural inputs, outputs, and interconnections that make up the circuitry of the olfactory bulb and provides an encyclopedic documentation of the morphologies, connections, and neurotransmitter contents of virtually every cell of the olfactory bulb that has ever been described. It also connects well with the two chapters that follow it, which describe the olfactory tract and microcircuitry in olfactory cortical areas.

Throughout this book, Halász displays an almost uncanny familiarity with intimate details of decades of literature. He wisely steers clear of controversy and limits himself to well-established experimental facts in providing a unified overview of the functional anatomy of the olfactory system. In doing so, he has provided a monograph that will remain a valuable source of information for many years to come.

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The Fern Gametophyte

Developmental Biology of Fern Gametophytes. V. RAGHAVAN. Cambridge University Press, New York, 1989. xiv, 361 pp., illus. \$80. Developmental and Cell Biology Series.

The familiar form in the life cycle of the fern is the large, structurally complex, long-lived sporophyte. This book, however, is about the small, simple, and generally transient gametophyte. Though less obvious in nature than the sporophyte, the haploid gametophyte is a useful organism for the study of many biological phenomena. Raghavan has done an admirable job of demonstrating the value of fern gametophytes for the investigation of various developmental problems.

The title is true to the contents, and comments about gametophytes of *Equisetum* and *Isoetes* are brief in comparison to those about the haplophase of ferns. Fern game-