

tion between private and public patriarchy. If anything, it is an illustration of the reasons why patriarchy has remained a problematic concept. According to the author, women were originally oppressed by men as members of families. This constituted a private form of patriarchy. Industrial capitalism gradually broke down the bonds of kinship, substituting for them impersonal forms of authority in the marketplace, the firm, and the corporation. This represented a triumph of public over private patriarchy. From this overly schematic approach, the author has no alternative but to conclude that public patriarchy, though still oppressive of women, represents an improvement over the past insofar as it provides freer access to jobs and earnings and therefore greater autonomy and independence for women.

Undoubtedly, some women have benefited from changes brought about by industrial capitalism as a result of their membership in privileged classes. Others have found their conditions of life debased as a result of the same process. The point is that neither of these transformations can be fully explained by invoking patriarchy in isolation from other factors. To say that class and ethnicity also matter is not enough unless we are willing to examine the articulation between patterns of domination and labor appropriation involving men as well as women.

One way to do this is by investigating the part played by gender in the maintenance of exploitative systems of production. Highly polarized definitions of womanhood and manhood have been key factors in the maintenance of class-divided societies. Expectations and behaviors surrounding definitions of manhood have been instrumental in the exploitation of male labor. "Providers" and "heads of households" may obtain net benefits from their status, but they are also compelled to fulfill onerous responsibilities that subordinate them to employers.

In a complementary vein, the ideal of transforming all women into home-bound mothers and wives serves to obscure the manner in which reproductive labor subsidizes processes of capitalist accumulation by absorbing costs that investors are unwilling to assume. By taking such factors into consideration, we are in a better position to understand the mechanisms that link class with gender.

Then there is the question of resistance and outright confrontation. Neither women nor men have invariably accepted institutional definitions passively. Three chapters in *Hidden Aspects of Women's Work* explore this subject. One is an engaging description of work and labor organizing in Troy, New York, in the late 19th century. This excellent

piece discusses the relationship between family composition and women's participation in workers' organizations. This issue has important implications for understanding working women in general. The author correctly states that avoiding stark contrasts between women and men and looking at conditions under which some women are able to organize successfully reveals subtle differences between male and female workers and among women workers in the same and different industries, occupations, and communities.

A final word of praise should be said about two other chapters, one dealing with the elaboration of minimum wage legislation for women between 1910 and 1925 and one relating the peculiar undercount of women's employment in 1900 and 1980. The first piece is exemplary for its breadth and detail. The second confirms a long-held suspicion: The apparent jump in women's employment during the latter half of the 20th century may be an artifact of census methodologies that tended to ignore women as "real" workers in the past. That most people still believe that women's involvement in productive labor is a recent phenomenon is a testimony to the power of ideology over facts.

Perhaps the most important contribution of *Hidden Aspects of Women's Work* is that it adds new information to the vital and ongoing debate about the meaning of women's labor. This is a theme that should be of interest to social scientists of various theoretical persuasions.

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Champions of Relativity

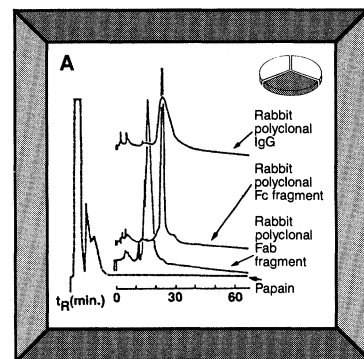
Einstein in Spain. Relativity and the Recovery of Science. THOMAS F. GLICK. Princeton University Press, Princeton, NJ, 1988. xiv, 391 pp., illus. \$42.

In the words of its author, this book is "a contribution to the history of civil discourse in matters of science in an ideologically polarized society" (p. xi). Glick, who has previously examined the reception of Darwinism and psychoanalysis in Spain, argues that the enthusiastic response to relativity—crystallized by the visit of Albert Einstein to Spain in 1923—was the result of a new consensus among an otherwise ideologically divided elite on the need for more scientific research, a consensus that disintegrated only in the tense political atmosphere of the

(Continued on page 1212)

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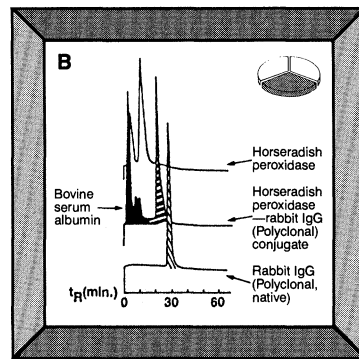
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1930s. The real contribution of the book, however, lies less in this somewhat unconvincing thesis than in its description of the way in which knowledge of relativity was disseminated in Spain. The book is also an addition to the literature on Einstein himself, providing an exhaustive account of his visit to Spain and of his reception in the scientific and intellectual communities.

Historians of science interested in how scientific ideas are understood (or misunderstood) and popularized will find this book of great utility, particularly since Glick is a systematic comparativist who contrasts the Spanish encounter with Einstein with the reception of the man and his theories elsewhere in the world. In the opening chapters, Glick shows how the structure of the Spanish scientific community shaped the reception, understanding, and propagation of the new theory. Because its principal advocates were mathematicians and its initial audience mathematically trained engineers, relativity was discussed in the 1920s primarily in terms of the General Theory; the Special Theory, which received wide attention only after the empirical confirmation of its postulates in 1919, was frequently misunderstood or rejected as counterintuitive. Glick convincingly demonstrates, however, that Spanish scientists were less "backward" than their detractors charged; their understanding and acceptance of relativity compared favorably with its reception in countries with larger and more mature scientific establishments. Among the Spanish intelligentsia and the educated general public, however, the deficiencies in Spanish scientific education were an insuperable barrier to the comprehension of relativity (although incomprehensibility apparently added to its charm for many).

The early champions of relativity in Spain included devout Catholics as well as progressives. On this evidence Glick concludes that there was an elite commitment to civil—that is, ideologically neutral—discourse on scientific matters. Although he establishes beyond a doubt the existence of an extensive and intensive discourse on relativity, closer analysis of that discourse, as well as of the disparate group that Glick labels the "elite," suggests that right and left had divergent motives for accepting relativity and that the consensus was more apparent than real.

Although Glick finds it surprising that Catholic scientists should embrace relativity theory, relativity was less threatening to Catholic philosophical and theological assumptions than was, say, Darwinism. Indeed, in its ambitious attempt to provide a single, overarching explanation for all physical phenomena, it was congenial to neo-Scholastic efforts to reunite philosophical

and scientific conceptions of the universe. As a branch of cosmology, relativity was additionally attractive because it could be made to reinforce Catholic assertions about the spiritual and universalistic tendencies of Spanish culture; for example, Glick cites José María Salaverría, a rightist literary figure, who praised relativity for its compatibility with the "noble" Spanish "cult of the useless" (p. 272). In accepting relativity, Catholic scientists could take aim at an old enemy—19th-century positivism and its ally, the liberal state—and at the same defend the achievements of Spanish science by demonstrating how well they understood the mathematical proofs of the new theory.

The left intelligentsia, on the other hand, found different uses for Einstein. Their inability to comprehend the mathematics of the General Theory provided an excuse for deploring the inadequacy of Spanish scientific education, while the paradoxes of the Special Theory became a springboard into "relativistic" philosophical arguments. In Catalonia, receptivity to Einstein was viewed as a hallmark of the region's modernity. Moreover, for both the progressive left and the Catholic right, enthusiasm for relativity provided an indirect way of criticizing the university professoriate and, by extension, the state that employed them.

The "recovery of science" was thus probably not as disinterested or consensual as Glick believes it to have been. Had he analyzed the institutional and political context of the relativity debate and of Einstein's visit more systematically, the cultural and intellectual significance of this episode would have become clearer and the breakdown of the supposed consensus in the 1930s less anomalous. Glick's failure to perceive the political dimensions of the controversy over modern science flaws this otherwise interesting study.

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Optimal Foraging

Foraging Behavior. ALAN C. KAMIL, JOHN R. KREBS, and H. RONALD PULLIAM, Eds. Plenum, New York, 1987. x, 676 pp., illus. \$115. Based on a conference, Providence, RI, June 1984.

Foraging Behavior consists of papers stemming from a conference financed in part by the royalties from a 1981 conference volume of the same title. The royalties from the present volume will again be applied to a conference, to be held in 1989 or 1990.

Foraging Behavior contains 23 papers grouped into sections on theory, selectivity, patch utilization, reproductive consequences, learning, and coaching. One paper stands out: T. W. Schoener's account of the difficult birth of optimal foraging theory that opens the book. Everybody concerned with optimal foraging should read this paper. It is written in a personal style and recounts difficulties of getting papers in this field published. Having read Schoener's paper, one starts wondering what optimal foraging theory would have been without him and *Theoretical Population Biology*—a journal edited by him for many years that has played a central role in the publication of papers on optimal foraging. Schoener has therefore played a twofold role in this field, contributing some of the best papers and serving as a promoter for others. (It is unfortunate that his name is misspelled in the table of contents.)

Schoener's paper is grouped with a paper by R. D. Gray. Even though he discusses optimal foraging theory, Gray's paper is not really about optimal foraging—it is an attack on modern evolutionary biology. To my mind, it is not a very good one. Much of the criticism leveled against optimal foraging theory is, I believe, based on misunderstandings on Gray's part. He uses a strategy that is commonly used in critiques of modern evolutionary biology, presenting a vague version—a caricature—of the theory and then criticizing the caricature. Although no direct commentary on Gray's paper is provided, many of his criticisms are in fact rebutted by Schoener's paper. Both Schoener's and Gray's papers are supplied with extensive lists of references that will be of great help for those wanting to orient themselves in the field of optimal foraging.

The remaining 80 percent of *Foraging Behavior* is of a very different kind. Here we find what are essentially research papers that could have been submitted to journals. The quality of these papers varies considerably. Some are very good, such as those by Green and by Kacelink and Cuthill on modeling.

Quite a few of the papers are theoretical, and some are a blend of theory and empirical material. A few exemplify the problem of having too many data not properly collected for answering any scientific questions.

The papers on the role of learning and memory in foraging behavior constitute a valuable part of the book. Attention is also given to integrating foraging behavior with game theory. Here the volume benefited from combining the efforts of biologists and psychologists.

The book is reasonably well produced, but the editors could have done more to make it coherent. Altogether, I would rec-