Looking Backward

A History of Immunology. ARTHUR M. SILVERSTEIN. Academic Press, San Diego, CA, 1989. xxii, 422 pp., illus. $39.95.

Immunology, 1930–1980. Essays on the History of Immunology. PAULINE M. H. MAZUMDAR, Ed. Wall and Thompson, Toronto, 1989. x, 307 pp., illus. $C39.95. Based on a congress, Toronto, July 1986.

As immunology has entered the epoch of the T cell receptor an infectious certainty has settled upon us; this time, we are confident, we really have got it right. With this confidence has come a tendency to look back in a rather self-congratulatory way. This comes at an interesting time for immunology. On one side, as Robert Teitelman points out in *Gene Dreams* (Basic Books, 1989), we are lavished with uncritical praise by the press and the biotechnology industry. On the other, postmodernist social critics attack immunology and the very establishment of science (see D. Haraway, *Differences: A Journal of Feminist Cultural Studies* **1**, 3 [1989]). When a discipline finds itself the object of conflicting evaluation from outside and comfortable analysis from within, the time is right for a critical appraisal, and examining its history is not an uncommon way of beginning. The two books under review are probably the first wave of studies of the history, sociology, and psychotherapy of immunology and immunologists, and they force us to ask, Who is to do this critical appraisal? Trained historians and social critics who do not know the science, or scientists themselves? In *What Is History* E. H. Carr argues that history is what historians choose to write about. The facts, he tells us, can be verified, but "they do not themselves constitute history . . . when we take up a work of history, our first concern should be not with the facts which it contains but with the historian who wrote it." In short, in any scientist's history of science one must look for the principles governing the selection and interpretation of the scientific facts and events that make up the historian's narrative.

Arthur Silverstein, the author of *A History of Immunology*, is an established immunologist who knows the facts and has devoted years to training himself in the discipline of the historian. Consider his introductory chapter entitled "On history and historians." In a brief seven pages he shows clearly the difference between the ways in which the working scientist and the historian or social critic operate. He describes the need for the practicing scientist to see continuity in scientific progress and therefore to remember his or her antecedents selectively. In contrast, the historian, he informs us, sees the "nonlogic of scientific discovery" (Peter Medawar's phrase). So in Silverstein we have a scholar who has worked both sides of the street and is aware of the scientist's need to believe that the road that led us here was a straight shot from ignorance to truth. But he also knows and understands what countless historians (and Medawar) have identified as the selectivity of recall. *A History of Immunology* is therefore a serious history (note that the title is not "*The* History of Immunology") that attempts to deal with not only the facts but also the factors that determined the choice of those facts that immunologists have used.

Silverstein the scientist has been a diligent reader of the immunological literature, and Silverstein the historian has put these facts into a series of essays ranging from the royal experiment on smallpox in 1722 to the debate on cellular versus humoral immunity at the end of the 19th century. On occasion he falls into the trap of hindsight and one sees the scientist superseding the historian, but these lapses are rare. Each of the essays is coherent and self-contained, a fact that is both a strong point and a weakness of the book. Most of the chapters have appeared in only slightly different form as articles in the journal *Cellular Immunology*, and there has been no attempt to unify them. The result is an episodic presentation, more like an encyclopedia than a monograph. In fact, the whole feel of the book is one that we have come to expect from Academic Press: heavy, slick pages that reflect light, much like a volume of *Advances in Immunology* or books on enzyme kinetics rather than a high-level history. But these are minor complaints, and though this book is not the kind of good read that *The Eighth Day of Creation* is, it will be of interest to all but the most obdurately hard-core experimentalist.

The second book under review has a deceptive title. It is a collection of the papers presented at a satellite symposium at the Sixth International Congress of Immunology in Toronto, and, though there are indeed some essays on the history of immunology, most of the chapters are the remembrances of people who have been at the center of immunology from the 1950s. As one would predict, the literary styles and the amount and kind of historical perspective vary greatly. Fortunately, the people I know all wrote fascinating and penetrating chapters. This volume, I would suspect, will be of interest to those who know the authors and are interested in how they remember the events they discuss. Historians may find it interesting to compare the battlefield memories of participants as they try to piece together what it was like when immunology was groping to find the path that is retrospectively so clear to us.

Taken together, these two books give us insight into the scientific process that should be of value to practitioners, critics, and admirers. Anyone who is planning to exploit the therapeutic promise and profitability of the latest lymphokine should realize the danger of the short-term view after reading Silverstein's history and the Toronto volume. Similarly, the postmodernists who attack science from the vantage of the most current ism (Marxism, feminism, environmentalism, or some other) should take from these volumes the warning that scientific discovery is complicated and that one must be very thoughtful about attacking the motives and aims of the working scientist. The practitioner, alas, must keep slogging along and hoping that the grant review committee has the proper combination of historical and scientific insight to realize that his or her proposal is *really* on the fork of history that will survive as truth.

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Radical Professionalism

The Politics of Knowledge. Activist Movements in Medicine and Planning. LILY M. HOFFMAN. State University of New York Press, Albany, 1989. xii, 290 pp. $54.50; paper, $17.95. SUNY Series in the Sociology of Work.

American society generally and the social sciences in particular often view professionals as a self-centered elite. The vague critical label "yuppie" that arose in the 1980s and the sociological critique of medicine, law, and other high-status professions as exercising "professional dominance" over consumers and the public through their control over knowledge are examples of this viewpoint. Yet beginning in the 1960s, thousands of young doctors, teachers, scientists, lawyers, social workers, and other professionals, strongly influenced by the civil rights and