

Herbert Hyman (Columbia University) wrote on social psychology, stressing socialization, attitude formation, perception and reference group identity, all critical to racial analysis; but as end points in research, freed from their political and economic contexts, they lead to sterile results. Hyman represented a dominant, traditional approach in American race research. Thomas Pettigrew (Harvard University) wrote on the Negro and education. His literature survey was exhaustive, special attention being paid to the famous Coleman report and the re-analysis of it by the Civil Rights Commission. In the effort to be "scientific", he applied standards of educational performance which may be outmoded in the evaluation of educational performance by minority group children. The principal emphasis was on integration and he seemed to assume some kind of linear integration model of academic performance with standards coming from the broader, white society.

Donald Matthews (University of North Carolina) developed criteria for a systems model (environmental inputs—policy making—outputs) that he thought would be useful for political science research. Though the systems model can be heuristic, Matthews may have over-used it; and this can yield a sterile exercise. He drew attention, however, to those political problems in race relations which others tended to pass over lightly. Karl Taeuber (University of Wisconsin) preferred a demographic approach and developed data on Negro fertility, family patterns, morbidity, mortality and population migration. His material is useful for information purposes, but he failed, as did most others, to place such data into the proper political-economic framework.

Charles Killingsworth (Michigan State University) wrote on "Jobs and Income for Negroes". He provided quite useful data on migration, occupational mobility, income, education, unemployment, under-employment, labour demand and supply. His analysis almost reached a point of vitality and relevance because he dealt with opportunity structures for disadvantaged persons, but his hints at solutions were conservative and uninspiring. James Coleman (Johns Hopkins University) developed a systems model as a basis for helping to explain "Race Relations and Social Change". He discussed power, deficits in Negro resources and the conversion of existing resources into usable resources that build efficacy and power. His theory was challenging and hit at important dimensions but one was left with the question: What is its social use?

The book is useful for data, information, ideas, a summary of mainstream social science and the "state of the art". It leaves many problems untackled

which would have been quickly developed by younger, radical analysts or representatives of the black community. Interestingly, most writers did not deal very directly with racism, but analysed the social system. Even then, they did not grapple very much with fundamental problems of political and economic power. Thus, they tended to reflect, once again, the difficulty "establishment" social scientists have in tackling the meat of relevant race relations analysis. ROBERT H. MAST

## Cell Mediated Immunity

*Cellular Immunology*. (An International Journal.) Edited by H. Sherwood Lawrence. Volume 1. (Academic: New York and London, May 1970.)

THE fault is with the system. The biomedical scientist of happier days could keep informed in his field (and related fields) by conscientiously reading the small number of papers written by a smaller number of fellow scientists published in a still smaller number of journals, annual reviews and so on. The system is now breaking down, and the response to this seems to be a further proliferation of publications which can only act to accelerate the breakdown process. This is one reaction to the appearance of *Cellular Immunology* but, in all fairness, my other reaction is that if another new journal must appear, it is justified in the field of cellular immunity.

There can be no disagreement about the rapid transformation of immunology into a discipline in its own right over the past decade, following more than half a century during which immunology as a hand-maiden of microbiology dealt primarily with resistance to infectious diseases. The immune response is now seen as the basis of a broad biological system for recognition which has important applications in many areas of basic science and in clinical medicine, including problems of transplantation, cancer (immunodiagnosis and possibly immunotherapy) immunopathology, development and genetics.

The form of the immune response which leads to the production of circulating antibodies has been the province of the well-developed subdiscipline of immunology known as immunochemistry. Immunochemists have been responsible for the rapid increase in knowledge of structure and function of the different classes of immunoglobulins (the circulating antibodies) and we seem near to the solution of the puzzle of the genetic control of the variable sequences of the amino-acids of peptide chains which must differ for each antibody specificity. It now seems, however, that resistance to many bacterial and virus diseases and perhaps parasitic diseases,

as well as important aspects of transplantation, cancer immunology and of immunopathology, depend on the kind of immune response which is not mediated by circulating antibodies. This area of "delayed type hypersensitivity" or "cellular immunity" includes, first, the specific cell-mediated immunity mediated by lymphocytes whose cell surfaces possess what must be immunoglobulin-like receptor sites to react with antigens and, second, the more non-specific cellular immunity mediated by macrophages (which may require activation by one of the products released following the reaction of the specifically sensitized lymphocytes with antigen).

In the first issue of *Cellular Immunology*, the editor-in-chief, H. Sherwood Lawrence, gives the rationale for the new journal, and the papers cover many aspects of the *in vitro* correlates of cell-mediated immunity which have made possible the recent rapid progress in this field. The reports that the lymphoid cells responsible for cell-mediated immunity differ in their morphological and physicochemical characteristics recall how the early concept that antibody was a single kind of globulin,  $\gamma$ -globulin, has been replaced by new knowledge of the heterogeneity of classes and subclasses of immunoglobulins, each with different structures and function. This issue also includes a report in experimental animals on the serum factors (presumably "blocking" antibodies) which have been shown to abrogate the inhibition caused by sensitized lymphocytes of the growth of tumour cells *in vitro*. Similarly, "blocking antibodies" have also been described in certain human cancers. HOWARD C. GOODMAN

## Studies on Myelin

*Myelination*. By A. N. Davison and Alan Peters. With contributions by J. McC. Howell, J. E. Vaughn and L. I. Woolf. (A Monograph in the Bannerstone Division of American Lectures in Living Chemistry.) Pp. xiv + 238. (Thomas: Springfield, Illinois, August 1970.) \$13.50.

MYELIN is a structure which has received considerable attention from biologists, morphologists and biochemists in the thirty-five years since Schmitt investigated it with polarized light in 1936. Undoubtedly, it now has the added attraction to neurochemists that it can be obtained in bulk from the mammalian nervous system by relatively straightforward procedures, so that its chemical composition can be related to its physical properties and to its appearance under the electron microscope.

This rather expensive monograph was written largely by two prominent investigators in the field, and deals with the complex morphological and bio-