gray, average, inanimate normality. Basically, nature is not that way, and scientists are the ones equipped to tell us so. Or is the higher evaluation the prerogative of the poet?

There would seem to be little doubt as to the immense value of this volume to all members of the laboratory team. It would appear to stand as a model, for other fields as well, in its systematic attack upon the common problem of fact-gathering and recommendation.

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Cybernetics: Circular Causal and Feedback Mechanisms in Biological and Social Systems. Transactions of the Seventh Conference, March 23–24, 1950, New York. Heinz von Foerster, Ed. New York: Josiah Macy, Jr. Foundation, 1951. 251 pp. $3.50.

This new volume has been edited by Heinz von Foerster, of the Department of Electrical Engineering, University of Illinois, with the assistance of Margaret Mead, of the American Museum of Natural History, and Hans Lukas Teuber, Department of Neurology, New York University College of Medicine. This diversity of professional interests of the editors is indicative of the variety of professions represented by the conference participants and guests. The program is represented as an experiment in an attempt to reintegrate science. In the words of Frank Fremont-Smith, medical director of the foundation,

> . . . between the disciplines there are real difficulties in communication—partly emotional and partly semantic. Emotionally some investigators accept only data derived from methods or disciplines with which they are familiar. On the semantic level the physical and biological sciences can understand each other without difficulty as can the medical, psychiatric, and social sciences. However, to bridge the gap between the physical and biological sciences on the one hand and the psychological and social sciences on the other is very difficult. Through the Conference Program this Foundation hopes to foster communication and reintegration and . . . give a clearer reproduction than now appears in the scientific literature of what takes place in the laboratory and what goes on in the minds of scientists.

This reviewer found it interesting, pleasant, and highly stimulating to be "present" at a discussion conference while relaxing in an easy chair. Since a considerable amount of information was brought out through discussion, in addition to that presented in the formal reports, a summary of the material would only tend to underestimate the contents. The specific topics considered at the meetings were: "Some of the Problems Concerning Digital Notions in the Central Nervous System," Ralph W. Gerard; "The Manner in which and Extent to which Speech Can Be Distorted and Remain Intelligible," J. C. R. Licklider; "The Redundancy of English," Claude E. Shannon; "Experience in Learning Primitive Languages Through the Use of Learning High Level Linguistic Abstractions," Margaret Mead; "On the Development of Word Meanings," Heinz Werner; "The Development of Language in Early Childhood," John Stroud; and "The Relationship of Symbolic Function in Language Formation and in Neurosis," Lawrence S. Kubie.

In spite of the participants' different viewpoints and training, the discussions maintained a high level of intelligibility and continuity. In closing the meeting Fremont-Smith stated,

> I do feel that . . . we have come closer to a discussion in which there is a common denominator for every discipline here.

For this very reason, the volume should be of interest to scientists, regardless of their specific fields. The Josiah Macy, Jr. Foundation should be congratulated for making possible the conference and the publication of this book.

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The Kidney: Medical and Surgical Diseases. Arthur C. Allen. New York: Grune & Stratton, 1951. 583 pp. $15.00.

More than half this "text and atlas of renal disease" consists of lucid, well-ordered plates, mostly photomicrographs. The legends are brief but clear and descriptive. There are useful sections on renal anatomy, embryology, and malformations.

The aim of the book is to help clinicians in visualizing the lesions that cripple their patients, and morphologists in reconstructing the dynamic evolution of the static lesions they finally see.

Unfortunately but inevitably, "life is short, art is long"—too long now for uniform excellence in every one of its aspects. Here and there the text contains pronouncements that could mislead a trusting clinician or student; related references give the impression of an uncritical selection. On the other hand, the coverage of renal pathology is in general satisfying, and some sections, notably those on toxins, infections, diabetes, and tumors, equal the high standard of the illustrations. Pathologists will take exception to the term "membranous" as applied to glomerular disease (it is accurate but has unrelated and well-established associations), to classification of benign albuminuria as a glomerular disease and myeloma kidney as a distal tubular nephrosis, and to a concept of hyaline droplet formation that runs counter to current weighty evidence.

The handsome volume is therefore recommended as a comprehensive atlas which should be in the hands of all who have to do with renal disease. But they should salt their use of its text by reference to other guides, such as Fishberg, Addis, Oliver, Bell, and Smith.

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