In brief, this is a very useful book and is one that should rank high with students of human embryology.

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Radioisotope Techniques. Vol. I. Medical and Physiological Applications. Proceedings of the Isotope Techniques Conference, Oxford, July 1951, sponsored by the Atomic Energy Research Establishment. H. M. Stationery Office, London, 1953. vi +466 pp. Illus. + plates. £2 10s.

This conference was held at Oxford, July 16–20, 1951, for the purpose of bringing together the people who use isotopes in varied biological studies. The participants were chiefly British and French, with a sprinkling of men from Scandinavia, West Germany, Switzerland, Italy, Portugal, and Canada. The 98 papers presented were divided into a total of 30 separate sections under the broad headings of "Therapy and Diagnosis," "Biochemistry and Metabolic Studies," and "Plant Biochemistry." Only 10 papers were devoted to the latter, but all were extraordinarily interesting.

The general plan of each session was to have the first paper describe the scope and theory of the phase under consideration; one to four more shorter papers then dealt with special applications.

Since the data represent the state of advancement as of July 1951, it is difficult to pass any sound opinion on their present usefulness. Obviously, they are valuable from a historical point of view for those reviewing the subject or for those reading to revise the orientation of their experiments. Insofar as memory serves, the papers indicate that we in the United States were probably ahead of our British and Continental colleagues in instrumentation, in breadth of exploration of the over-all field, and in a few certain isolated applications. They, on the other hand, were well into the basic aspects of many problems, which, as reported in collected form here, it is a pleasure to read.

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Magnetic Cooling. C. G. B. Garrett. Harvard Univ. Press, Cambridge, Mass.; Wiley, New York, 1954. 110 pp. Illus. $4.50.

This book provides the first treatment of the subject of magnetic cooling since the appearance in 1940 of the celebrated monograph by Casimir. It is, in effect, a revised edition of the latter, with an entirely new chapter on cooperative effects and a thorough, if condensed, coverage of the experimental work done between 1940 and 1952 on both paramagnetics and other materials at temperatures below 1°K.

Garrett has favored the descriptive, or "physical," approach throughout, and his chapter on cooperative effects is especially interesting. As the publishers point out, "the author stresses those aspects of the subject with which he has been most closely associated," but fortunately these aspects are sufficiently numerous to maintain a reasonable balance. The section dealing with experiments on "other materials" below 1°K is probably shorter than the title of the book would suggest, although the author, by skillful abstraction of the essential features, has succeeded in covering in a short space the majority of the important experiments reported by late 1952. As a result, the reader is provided with a clear picture of the diversity of such researches and of the current rapid development in the field.

One notices a number of minor errors and points for criticism but few that warrant mention, especially in a brief review. Of the limited space available in a monograph, rather too much has been devoted to a discussion of the "purely academic" question of what is the correct expression for the energy of a magnetized specimen, and the important question of the validity of heating by gamma rays in calorimetric determinations is dismissed by a brief mention of the objection that has been lodged against the method. Absolute temperature determinations made in the millidegree region by different methods show wide disagreement (the latest work on potassium chromic alum provides a graphic example), and a short critical examination of possible causes would have been of value.

In summary, *Magnetic Cooling* is extremely "readable," timely, and useful to both students and research workers, especially so by reason of the provision throughout of a wealth of references to original publications. It should convey to the general reader a clear impression of a fascinating and rapidly expanding field and stimulate a wider appreciation of the potentialities of the temperature region below 1°K.

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Hypnotism: An Objective Study in Suggestibility. André M. Weitzenhoffer. Wiley, New York; Chapman & Hall, London, 1953. 380 pp. $6.

Since the publication in 1933 of C. L. Hull's classical study, *Hypnosis and Suggestibility: An Experimental Approach,* more than 500 reports and books related to the subject have been published. During this interim, new techniques have been devised and old techniques have been revised; much information formerly based on inconclusive experiments or personal history can now be recorded and evaluated in the light of accepted present-day research standards, and the applications of hypnosis have made apparent the need for a thorough, factual appraisal and integration of the data relevant to the basic phenomena of hypnosis and suggestibility.

André Weitzenhoffer's book successfully presents "a critical and integrated compilation and appraisal

of the scientific work done to date in this field." It will stand as a milestone in the scientific investigation of hypnosis.

The structure of the book is well planned. Each of the four chapters is introduced by a summary of the results and conclusions of other investigators and is followed by the interpretation and conclusions of the author. The investigations chosen for discussion tend to eliminate those items of only a historical or empirical nature. Some excellent references have been omitted to conserve space and, for the same reason, many of the arguments are quite brief. However, condensation and conciseness do not impair the value of the book.

The first chapter embraces a short history of, and an introduction to, hypnosis. The second and third chapters are devoted to a consideration of the intrinsic and extrinsic characteristics of suggestibility and hypnosis. These chapters, which are designed to establish the experimental foundations of hypnosis, constitute the major portion of the book. In keeping with such a purpose, the author has given little attention to hypnotic techniques or therapy as such. The final chapter constitutes an exposition of the various theories of hypnosis followed by the presentation of a new theoretical approach formulated by the author.

Weitzenhoffer's text is well supplemented by adequate charts and diagrams and an extensive bibliography. It should stand beside Hull's classical work as a source book for today's student of human behavior and management.

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New Books

Vegetable and Flower Seed Production. Leslie R. Hawthorn and Leonard H. Pollard. Blakiston, New York, 1954. 626 pp. Illus. $7.50.

The Physiology of Man. L. L. Langley and E. Cheraskin. McGraw-Hill, New York, 1954. 609 pp. Illus. $5.50.

Avian Physiology. Paul D. Sturkie. Comstock, Cornell Univ. Press, Ithaca, N.Y., 1954. 423 pp. Illus. $6.

Probability and Information Theory, with Applications to Radar. P. M. Woodward. McGraw-Hill, New York; Pergamon Press, London, 1953. 128 pp. Illus. $4.50.

Physics for Medical Students. J. S. Rogers. Melbourne Univ. Press, Melbourne, Australia; Cambridge Univ. Press, New York, 1953. 405 pp. Illus. $5.50.

Progress in Nuclear Physics. Vol. 3. O. R. Frisch, Ed. Academic Press, New York; Pergamon Press, London, 1953. 279 pp. Illus. + plates. $9.50.

Cold Injury. Transactions of the Second Conference, Nov. 20–21, 1952. M. Irené Ferrer, Ed. Josiah Macy, Jr., Foundation, New York, 1954. 242 pp. Illus. + color plates. $4.

Laboratory Studies in Biology. Addison E. Lee and Osmond P. Breland. Harper, New York, 1954. xi + 253 pp. Illus. $3.50.

Introductory College Mathematics. Chester George Jaeger and Harold Maile Bacon. Harper, New York, 1954. xii + 382 pp. Illus. $4.75.

Experimental Inorganic Chemistry. W. G. Palmer. Cambridge Univ. Press, New York, 1954. 578 pp. Illus. $9.

First Course in Calculus. Hollis R. Cooley. Wiley, New York; Chapman & Hall, London, 1954. xii + 643 pp. Illus. $6.

Catalysis. Vol. I. Fundamental principles (Part I). Paul H. Emmett, Ed. Reinhold, New York, 1954. 394 pp. Illus. $10.

Animal Breeding. ed. 5. Laurence M. Winters. With additional chapters by William Rempel and John N. Cummings. Wiley, New York; Chapman & Hall, London, 1954. ix + 420 pp. Illus. $5.75.

The Determination of Crystal Structures. H. Lipson. Vol. III, The Crystalline State; Sir Lawrence Bragg, Ed. G. Bell, London; Macmillan, New York, 1953. ix + 345 pp. Illus. + plates. $8.

The Mechanism of Economic Systems. An approach to the problem of economic stabilization from the point of view of control-system engineering. Arnold Tustin. Harvard Univ. Press, Cambridge, Mass., 1953. xi + 161 pp. Illus. $5.

Die Bedeutung des Blutchemismus. Besonders in Beziehung zu Tumorbildung und Tumorabbau. Teil II. Der Zellund Gewebsstoffwechsel. Als Innere Krankheitsbedingung. Ernst Leupold. Georg Thieme, Stuttgart, Germany, 1954. 207 pp. Illus. DM 48 ($11.44).

Handbook of Freshwater Fishery Biology with the First Supplement. Kenneth D. Carlander. Wm. C. Brown, Dubuque, Iowa, 1953. v + 429 pp. $6.50.

A Symposium on the Mechanism of Enzyme Action. William D. McElroy and Bentley Glass, Eds. Johns Hopkins Press, Baltimore, Md., 1954. xvi + 819 pp. Illus. $11.

Petrography. An introduction to the study of rocks in thin sections. Howel Williams, Francis J. Turner, and Charles M. Gilbert. W. H. Freeman, San Francisco, Calif., 1954. x + 406 pp. Illus. $6.50.

A Practical Manual of Medical and Biological Staining Techniques. Edward Gurr. Interscience, New York, 1953. xix + 320 pp. $4.

Sweet Corn. Walter A. Huelsen. Interscience, New York–London, 1954. xv + 409 pp. Illus. $10.50.

The Biology of the Cryptic Fauna of Forests. R. F. Lawrence. A. A. Balkema, Capetown–Amsterdam, 1953. 408 pp. Illus. 50s.

Fresh Water from the Ocean. Cecil B. Ellis. Ronald Press, New York, 1954. xi + 217 pp. Illus. $5.

Antiseptics, Disinfectants, Fungicides, and Chemical and Physical Sterilization. George F. Reddish, Ed. Lea & Febiger, Philadelphia, 1954. 841 pp. Illus. $15.

Introductory Biology. ed. 2. Andrew Stauffer, Ed. Van Nostrand, New York–London, 1954. xvii + 802 pp. Illus. $6.50.

Biology. Paul B. Weisz. McGraw-Hill, New York, 1954. 679 pp. Illus. $6.50.

The Size and Growth of Tissue Cells. Joseph G. Hoffman. Charles C. Thomas, Springfield, Ill., 1953. 102 pp. Illus. $4.

Elements of Electrical Engineering. ed. 6. Arthur L. Cook and Clifford C. Carr. Wiley, New York; Chapman & Hall, London, 1954. 682 pp. Illus. $6.75.

British Veterinary Codex 1953. Council of the Pharmaceutical Society of Great Britain. Pharmaceutical Press, London, 1953. 737 pp. 45s.

Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability. Bull. 55, rev. 1953. Roger G. Barker *et al.* Social Science Research Council, New York, 1953. 440 pp. Illus. $2.