

Book Reviews

Childhood and Society. Erik H. Erikson. New York: Norton, 1950. 397 pp. \$4.00.

Childhood and Society is an illuminating, forceful, and original book. It succeeds in establishing "meaningful relationships between the anxieties of infancy and the upheavals of society," to use the author's phrase. Its chief contribution to psychoanalytic theory, as well as to the study of social processes, lies in the fact that—for the first time—it has been possible to integrate rather than to correlate facts and ideas from various scientific disciplines converging upon the phenomena of child development.

The book offers a developmental theory that encompasses the systematic interrelationships among three simultaneous processes, organismic, psychological (ego), and societal. Each of eight major developmental stages is described in terms of their core conflict. The manner in which bodily processes, and especially social realities, may facilitate or hinder successful mastery at each phase is carefully traced. From the convergence of anthropological and psychological observations of many kinds, it is concluded that each society, through its method of child training, actively assists the child in accomplishing certain among the developmental steps, and actively hinders full realization of developmental potentialities at other stages of growth. The resulting burden of infantile anxieties carried into adulthood is determining not only for individual character structure but is also related to values and social practices, and to the mythologies and taboos that lend unity and coherence to each society. The methods of child rearing used by a given social group are, of course, an expression of the economic, historical, and social structure of the society. The relation between society and child development is presented as a dialectic one; here as elsewhere the author avoids the pitfalls of single-variable causality. Thus he wisely makes it impossible for his material to be used as though it were technology. The book does not provide a recipe for child training methods guaranteed to prevent neurosis, nor a recipe for the creation of a social order designed to eliminate chaos and suffering. The problem is merely posed: "... it is now up to man to continue the exploitation of childhood as an arsenal of irrational fears, or to lift childhood to a position of partnership in a more reasonable order of things."

Within a consistent conceptual framework the reader is led to reflect upon seemingly widely divergent topics. In each instance clinical "specimen samples" introduce the more general treatment of a topic, so that the book is rich in tangential but significant material on the uses of the case history method and on the processes of diagnosis and treatment. There is discussion of the role of exploitation and unequal power among men; of femininity and masculinity; of the peculiar wisdom of children; of loneliness and

anxiety in the well as much as in the ill; of sources of vitality and strength; and of the struggle for ego identity, which the author regards as crucial to the problems besetting Americans today. A comprehensive theory of play (in childhood and in maturity) is given, as is an analysis of the core conflicts and their characteristic part-solutions in two tribes of American Indians. The principles so derived are in turn applied to an analysis of developmental determinants and their consequences in America, Germany, and Russia.

The applicability of the author's concepts is convincingly demonstrated. In the very act of such application however, the reader becomes aware of the gaps in knowledge and theoretical scope which prevent complete analysis. For instance, awareness of the interdependence of organismic, ego psychological, and social processes makes it necessary to comprehend each case history thrice over, once in terms of each of these frames of reference. It seems to this reviewer that fuller comprehension will lead to the development of concepts sufficiently general to eliminate such "triple bookkeeping."

Childhood and Society belongs on the "must" list of scientists and clinicians in the field of child development. It is also recommended as a textbook at the graduate level. To those familiar with psychoanalysis the book is notable especially for the sophisticated treatment of ego psychological and social data in such a way that these represent not an addition to (or a redening of) depth psychology, but rather make the latter more comprehensive. To those coming from other fields it serves as a lucid presentation of psychoanalytic developmental psychology in nontechnical (but happily not in "popular") language. To all it will be important for a unique combination of imaginative clinical description, rigorous thinking, gentle humor, and deep humanity. Erikson's definition of the goal of treatment describes something essential about the effect of his book: It leads to "... a deeper humility before the processes that govern us, and the ability to live with greater simplicity and honesty."

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Structural Chemistry of Inorganic Compounds. Vol. I. Walter Hückel; translated by L. H. Long. New York: Elsevier, 1950. 437 pp. \$9.00.

The subtitle of this two-volume treatise might well have been "Atomic, Molecular and Crystal Structure: Valence and the Nature of the Chemical Bond." This would avoid the impression that the book is a German counterpart to the recent volume by A. F. Wells which carries the title *Structural Inorganic Chemistry*. As the suggested subtitle implies, the scope of the Hückel treatment is far broader. The author has sought to provide inorganic chemistry a basis for its systematic

zation, "namely a structural and constitutional theory in one embracing representation."

Indeed, the subtitle should also include "A History of the Development of the Concept of Chemical Affinity," for the first two chapters are largely devoted to this topic and in the reviewer's opinion are the most charming chapters in the first volume. To one with even a casual interest in the history of chemistry, this historical analysis is worth the price of the book.

There follows a chapter on coordination theory of complex compounds, and the balance of Volume I is devoted to a more or less standard treatment of atomic structure, with emphasis on spectra with one and two emission electrons, magnetism, Raman effect, diffraction of x-rays, Mulliken's term symbols for molecules, and the chemical bond.

Volume II is to discuss volatility, crystal chemistry, silicates and glasses, metallic substances, and the chemical reaction.

The reader may be mystified by the introduction of the long chapter on complex compounds before the theoretical treatment. It would seem that a treatise that proposes to provide a basis for systematization would set up such a basis by a theoretical approach and then discuss this great mass of material in terms of the theory. Much of the chapter on complex compounds deals with the work of G. Jander and his students on polynuclear acids, and there are many chemists who will be unwilling to give this work the recognition here accorded.

Thermodynamics and reaction mechanisms have provided practical solutions and interpretations to more problems in inorganic chemistry than has the structural approach. What is really needed are more authors who can combine structure and thermodynamics into a unified interpretation. If one may judge from Volume I of *Structural Chemistry of Inorganic Compounds*, Hückel has not greatly advanced the basis for systematization. He has, however, provided a useful summary of many topics related to structural problems.

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Radio Communication at Ultra High Frequency.

John Thomson. London: Methuen; New York: Wiley, 1950. 203 pp. \$4.50.

It is the purpose of this book to provide an account of modern developments in radio communication techniques and systems applicable at frequencies above 100 Mc/s. The emphasis here is on communications rather than radar, and is largely written around the war and postwar work of the author in the Royal Naval Scientific Service.

Professor Thomson uses the vague, unscientific term "ultra high frequency" in the title of his book because of the lack of a better term in common use. He pro-

poses to remedy this situation by introducing a scientific nomenclature based on the decimal system in terms of wavelengths. For example, waves with lengths from 1 to 10 km would be called kilometric waves, and waves from 1 to 10 mm in length would be called millimetric waves.

The adoption of this nomenclature would eliminate, once and for all, such ambiguous terms as high frequencies, very high frequencies, ultra-high frequencies, and microwaves.

The first three chapters are on circuits and tubes used for metric or shorter waves. A sufficient amount of fundamental theory is given on transmission lines, wave guides, and resonators to aid in understanding how they are used as oscillator and amplifier circuits, wave meters, impedance matching elements, and filters. Factors that limit the frequency of conventional tubes are described, and the advantages of disk-seal tubes and velocity-modulated tubes in reducing these factors are presented. Simplified theories are used in explaining the operation of these devices.

There may be some justification for the short space, a third of a page, devoted to the magnetron, because of present limited applications for communication purposes. A discussion of the traveling wave tube, however, occupies only one page. In view of the importance of this tube as a wide band amplifier for communication purposes, the treatment seems inadequate.

The best part of the book is contained in the last four chapters. Chapter IV on receiver input circuits was written by the author's colleague, Peter E. Trier. It includes a discussion on the origin of noise in tubes and circuits and on design considerations for signal-frequency amplifiers. Mixer and local oscillator circuits are treated briefly. The next chapter is on modulation techniques. In addition to the usual amplitude and frequency modulation, it treats pulse amplitude, pulse length, and pulse position modulation. Chapter VI, on frequency control, describes various methods of control by crystals, cavities, and molecular absorption. The last chapter is on communication systems in which a comparison of the various modulation methods is made. Aerials and propagation are briefly considered. Some of the interesting possibilities in the way of radio networks at these high frequencies are discussed.

The book is well written and is easily read. The theory is kept to a minimum and is well supplemented by diagrams, curves, and numerical tables. Without going into great detail, it gives one a basic understanding of the present techniques and systems applicable to radio communications at ultra-high frequencies and a keen insight as to their future possibilities in new fields.

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