groups. Prince calls such activity "cocoon work," building on the metamorphosis metaphor.

4) Edward J. Moody extends this metaphor in a most interesting way in his two-year investigation of Satanism. Although his account here is anecdotal only, Moody nevertheless argues persuasively that worship of Satan has the effect of normalizing abnormal people. Thus, to "keep secret" from ordinary people their satanic power and existence such persons are urged to behave as straight as possible. The effect, of course, is more effective social relations—the goal for which Satan's name has been invoked in the first place!

By selecting only four, the reviewer does an injustice to the other essays. Each has merit, depending upon one's interests. Leo Pfeffer, for example, is clearly a giant in the church-state issue; his essay here is a first-rate addition to that literature. It is joined by that of John Richard Burkholder, who artfully combines a close legal scholarship and a sensitivity to social science to offer a new interpretation to the legal difficulty in defining religious freedom. The essays on Mormonism, by Dolgin and Leone, are others that can only bring insightful additions to the literature on their subject. And so it goes. Provided one does not expect a comprehensive "theory of cults," this book can be recommended to all those who are interested in social movements. Religion, after all, is intimately intertwined with cultic activities; it is entirely appropriate that we should have this addition to the body of literature.

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Chemical Plant Ecology

Allelopathy. ELROY L. RICE. Academic Press, New York, 1974. xii, 354 pp., illus. $25. Physiological Ecology.

A book on the biochemical interactions of plants has long been needed, but it is probably advantageous that it has been delayed long enough to include the mass of recent work in the various related disciplines. Rice has brought together data and descriptions of experimental ploys from a wide variety of sources. The resulting book is of great value to all who wish to understand the mechanisms and roles of phytotoxins in vegetation, and it is mandatory reading for those who work in the subject. The heavy emphasis on agriculture is largely a reflection of the longer history of interest and work in this discipline on the part of agricultural scientists. It seems, however, that a corresponding emphasis on academic plant ecology and the evolution of vegetation might have been gleaned from the literature with no greater effort.

Of particular value is the comparative treatment of phytotoxic relations involving the several life forms of plants (and animals—though these relations are scantily described). The involvement of similar and even identical toxic compounds in the several life form interrelations strongly suggests the possibility of a general biochemical habitat variable, but this concept is not treated. The adoption in chapter 1 of a special terminology for phytotoxins that is based on origin and victim seems superfluous, especially since the terminology is employed again only in chapter 12, and there briefly. The latter chapter, which gives structural characteristics and sources of a wide variety of phytotoxins, is particularly valuable. The emphasis on soil microorganisms should convince readers of the importance of microbial ecology and particularly of the lacunae in our understanding of the role of microorganisms in the ecology of higher plants.

Rice has covered admirably the literature from late in the 19th century to the present, especially valuable being his coverage of the rapidly growing Russian literature that Grodzinsky fosters with his annual symposiums. There are, however, some important omissions, such as Martin's able review "Chemical Aspects of Ecology in Agriculture" (Canada Department of Agriculture, 1957) and the startling forest tree studies in South Carolina by Hook and Stubbs and by DeBell, these last being virtually unique in their broad ecological implications.

Since no history of research is complete without a history of the ideas involved, it is disturbing to find that the chapter on the history of allelopathy research begins with de Candolle in 1832. Omitted is de Candolle's clear reference to Humboldt's *Aphorismen*, in which Brugmann's precociously modern research on *Lolium* is described at length and reference is made to Pliny as the source of the idea of weed-crop interaction. Pliny is now widely known as a copyist (plagiarist, since he cited no sources), and one can find most of the weed-crop and other antagonisms cited by Pliny, Humboldt, and de Candolle mentioned in Theophrastus's *Enquiry into Plants.*

The book is disturbingly repetitive, and the writing style makes for difficult reading and for a few ambiguities. One is surprised to find the California studies combined in a chapter entitled "Role of allelopathy in fire cycle in California annual grasslands." Annual grasslands have no fire cycle; chaparral does.

The strengths of this book far exceed its shortcomings, even to the extent of making it worth its rather steep price.

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The Hypothalamus

Integrative Hypothalamic Activity. Proceedings of a summer school, Amsterdam. D. F. SWAAB and J. P. SCHADÉ, Eds. Elsevier, New York, 1974. xii, 516 pp., illus. $65.40. Progress in Brain Research, vol. 41.

This book is the proceedings of a 1973 conference the aim of which was to develop ideas relating to the properties of the hypothalamus as an integrative center of the brain. In spite of the organizers' efforts, the book has turned out to be a diverse assemblage of chapters most of which are far removed from the theme of integration. If one is looking for a book to "tie it all together," present trenchant overviews and develop broad concepts, or define special properties of the hypothalamus, this one is an expensive disappointment. It consists of some fine reviews of specific topics mixed with chapters that are perfunctory research reports that should properly be short communications in journals. Actually very little in the book is "integrative" and a good deal is not even "hypothalamic."

The opening chapter, dealing with "breakthroughs" in hypothalamic and pituitary research, is really a "who's who" in hypothalamic-pituitary physiology and morphology and, though interesting, commits sins both of omission and commission. For example, there is no serious discussion of the work of J. A. F. Stevenson, B. Andersson, A. Hetherington, J. Broback, or B. Anand, and I am not sure all the limbic system workers discussed here deserve such prominence in a work on the hypo-