92 Book Reviews

David Lightfoot. THE LANGUAGE LOTTERY: TOWARD A BIOLOGY OF GRAZMARS. Cambridge, Mass.: M.I.T. Press, 1982. 224 pp. \$7.95.

David Lightfoot dedicates this book to "anybody whoever met a couple of linguists in a bar and asked them what they did for a living." Do not let this dedication mislead you. The audience the author has in mind includes "Linguists, biologists and people in related fields like ethology, psychology, anthropology and philosophy" (p. xi). Despite the dedication, the book is not for a non-academic audience, or for an audience who, by profession or avocation, has never seriously thought about the issue of human language. It is, however, a fascinating book that is learned, profound and possesses a quality not often found in academic prose - it is well written.

The book begins with a very important preface. In it, the author explains the rather whimsical title and the purpose and orientation of the book. Although this is what most prefaces generally do, it is essential in the reading of a book that deals with a familiar topic in an unfamiliar context - language in the biological context of genetics.

The ten chapters of the book are titled: The biological view; The central problem; The form of a grammar; Syntax; Interlude: Reflections on methods; Meaning; Sound; How languages change; The growth, breakdown, and use of grammar; and Reflections.

Although the content of some of these chapters might make it appear as if the book were an introduction to linguistics or a survey of linguistic science, it is neither. Those chapters are part of a whole with a very specific and distinct focus: the relationship between the structure of human language and its relationship with the genetic code. Some of the chapters (1, 2, 3, 8, 9 and 10) deal very specifically with the main issue of the book; they are the ones which linguists or people with a linguistic background will find the most interesting because they go well beyond the more narrow concerns found in traditional linguistic training or practice. They are, in fact, at the heart of contemporary linguistic thought.

For David Lightfoot, contemporary linguistic thought means the school of linguistics created by Noam Chomsky at M.I.T., a school to which Lightfoot has made significant contributions in the area of historical syntax in general and trace theory in particular. The author is well aware of the fact that his views, and indeed his book, are limited to "one particular research program" (p.x) and sensibly points out that he is not talking about all linguists and all schools of linguistics. This fact is not a limitation; it is in fact a strength, since Lightfoot has been able to condense the

Book Reviews 93

past, the present and, to some extent, to point toward the future of a theory which has revolutionized science and which, in consequence, has exercised enormous influence in disciplines other than linguistics.

The book does basically two things: first, it summarizes Chomsky's formal theory of language - hence the chapters on syntax, semantics and phonology - and second, it shows how starting from Chomsky's concern about child language acquisition, it is possible to establish a link between the universal structure of human language and the genetic nature of man. In doing so, it attempts to answer the following questions: How do children learn language? What makes language learnable? What aspects of language are genetically determined and which are not? Why and how do languages change? What is the relationship between language and mind? Most importantly, however, Lightfoot relates all these questions to each other, presenting a coherent picture within the specific framework he is working with.

In sum, The Language Lottery: Toward a Biology of Grammars is an intriguing, profound book about ourselves, about our very nature and our status as the "talking species".

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Adrian Akmajian, Richard A. Demers, and Robert M. Harnish. LINGUISTICS: AN INTRODUCTION TO LANGUAGE AND COMMUNICATION. (Second edition). Cambridge, Mass.: M.I.T. Press, 1984. 536 pp. \$16.95.

This book is an excellent introduction to generative grammar. From the outset it adopts the Chomskyan perspective that language is a uniquely human cognitive ability and backs this up with a comparison of animal and human communication systems. The book's strong points are the section of the structure of human language, covering core theoretical topics, and the chapter on pragmatics, which presents an inferential model of communication. The section in the first edition on animal communication has been considerably condensed, the chapters on core linguistic theory have been reworked and extended, and chapters have been added on the psychology of language and first language acquisition.

The book is divided into three sections. The first introduces language as an area of study and puts forward the Shannon and Weaver message model of communication in relation to a well-presented description of animal communication systems. The second section, which comprises two-thirds of the book, contains chapters on morphology, phonology, syntax, semantics, language