thought to occur in no other language in the world as far as is known. This is the sound like that "we make with our lips when we want to imitate someone farting" (pp.240-41) and which Crowley symbolises with [p']. This is interesting because the Mountain Koiari inland of Port Moresby use this sound (if I understand Crowley correctly) in story-telling. It is generally made as a group response to some lively part of the story and could be translated with something like "Gee, that's hot" or "Right on" in modern colloquial English. Although I do not know how widespread this usage is it was common amongst teenage youths and young men who acted as carriers for me in the Owen Stanley ranges in the 1960s.

The above minor detractions aside, however, the book is, as I have indicated, very good value. Indeed, there could be no better recommendation for it than the fact that although originally designed for a PNG audience this book has been used and appreciated by staff and students at such overseas universities as the Australian National University and Auckland University where English is spoken natively.

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Modern Transformational Grammar. By Bent Jacobsen. Amsterdam: North-Holland, 1986. xv + 441 pp. US$64.75 / Dfl. 175.00.

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Generative grammar has changed rapidly and radically during the late 1970s and 80s. The most significant changes from the former 'Aspects' model (Chomsky 1965), otherwise known as the Standard Theory, have been: (i) The decline in the use of many kinds of transformations as the means of relating Deep structure (D-structure) to Surface structure (S-structure). This component has been replaced by a very general notion of Move-α, i.e. move anything anywhere, which is controlled by a range of constraints and principles which are subcomponents of the theory; (ii) The transfer of the Semantic Representation component from the D-structure to the S-structure. This has now developed into the component Logical Form, a logical syntax of semantics, which relates entirely to S-structure; (iii) The development of a range of autonomous subcomponents (subtheories) such as X-bar theory, θ-theory, Case theory, Binding theory, Bounding theory, Control theory and Government theory. These sub-

components or modules make Government and Binding (GB) theory a very complex and sophisticated apparatus of grammatical description.

Because of such rapid changes to the whole nature of the generative model, textbooks on the subject soon become out-of-date and new ones need to be written. One such textbook is 'Modern Transformational Grammar' (MTG), by Jacobsen (J). J states in his preface that this book has developed out of a theory-based course in English grammar to fifth-year students of English. It is therefore a pedagogical work aimed at a practical application of current generative theory, viz. GB theory, to the grammar of a particular language, namely English. As such it is somewhat complementary to another GB textbook published in the same year (1986) by van Riemsdijk and Williams (R&W). Whereas R&W give more of the historical development and explication of various components of GB, J usually goes straight into an application of a particular component and then explains the theory behind the application. So J's book is more of a course book in GB than R&W's book.

A comparison of the chapters on Phrase Structure (PS) will illustrate the differences between the two books. J begins the chapter almost immediately (p.34) with a full-page description of the PS rules for English, 18 rules altogether. J then proceeds in the rest of the chapter to explicate each rule and demonstrate its overall significance in the theory. R&W, on the other hand, are concerned with the form and function of the PS component in the model. They begin (p.34) with an argument for the lexicalist hypothesis that certain types of proposed transformations, e.g. passive and nominalizations, are too powerful for a model of grammar which seeks to restrict as tightly as possible the expressive power of its various components. R&W then introduce X-bar syntax via its historical development followed by the Structure-preserving Constraint and Local and Root Transformations. They do not present a complete description of how the PS component would apply to a given language. So J is concerned with the application of the theory whereas R&W are concerned with the explication of the theory. J also has exercises for each chapter at the back of the book (pp.393-415) and R&W have none. R&W, on the other hand, give good bibliographical references at the end of each chapter to source works on the topics discussed in the chapter.

Nevertheless J seems to cover the ground as much as R&W do. A comparison of the indexes of the two books shows that they both cover all the important concepts and innovations that have developed recently within GB. However, there are some differences. J includes some items that are from previous frameworks, such as dative movement, do-support, equi-NP-deletion and tough-movement, and omits some recent developments such as accessible subject and paths. So, although these textbooks were published in the same year, R&W's book would appear to more up-to-date than J's book.

The chapters in MTG are I. The philosophical underpinnings of the generative paradigm, II. The modules of a transformational-generative grammar - a preliminary overview, III. PS-rules, P-markers, and their interpretation, IV. The structure of lexical items, V. X-bar syntax, VI. The principles of binding, VII. The transformational component - some basic concepts, VIII. Transformational operations - move alpha, IX. Transformational operations - deletion of lexical material with semantic content, X. Constraints on transformations - the search for generalizations, XI. θ-roles, the θ-criterion, the theories of chains and case - and some related issues, XII. Logical form - selected topics, XIII. Other semantic rules - selected topics, XIV. Speech acts.

J has a couple of interesting chapters at the end, viz. XIII and XIV, in which he suggests formalization for some semantic and pragmatic notions that strictly fall outside of the domain of GB theory. In chapter XIII J deals with inherent semantic features and how they relate to componential analysis and selectional features and how they apply to subcategorization rules, thematic features, sense-relations such as synonymy, hyponymy and antonymy, compositional semantics and the notion of presupposition. In chapter XIV J applies some linguistic analysis to Speech Act theory.

For anyone thinking of attempting a full descriptive grammar of a language in the GB framework MTG gives some idea of how this might be done since all one normally gets in articles and even books on the subject is "grammar fragments."

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The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason. By Mark Johnson. Chicago: The University of Chicago Press, 1989. xxxviii + 234 pp. US$18.25.

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Mark Johnson presents us with an academic book on human reason. He is "concerned here with how real human beings reason and not with some ideal standard of reality."

In the early chapters of the book, Johnson demonstrates how people first learn to reason about the concrete physical world. We, through metaphor, apply the inference patterns we have learned in the physical realm into the abstract realm. For example, Johnson claims that the meanings of modal verbs such as *must*, *may*, and *can* are based on bodily experiences of forces and re-