Book Reviews

The Folk Biology of the Tobelo People: A Study in Folk Classification. *Paul Michael Taylor.* Smithsonian Contributions to Anthropology, 34. Washington, DC: Smithsonian Institution Press, 1990. 187 pp. n.p. (paper)

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Tobelo is a West Papuan language spoken by peoples of Halmahera Island, Maluku, Indonesia. Paul Michael Taylor presents a nearly exhaustive account of the Tobelo system of folk biological classification and nomenclature in his appendices, which constitute more than half of his book.

What will perhaps be most striking about this work to ethnotaxonimists is its lack of conformity with the standard (Brent) Berlinian model of folk biosystematics. This is in part due to Taylor's reluctance to adopt Berlin's widely used system of ethnobiological ranks (e.g., life-forms, generics, specifics) and terminology for nomenclature (e.g., primary lexemes, secondary lexemes). Rather, he employs his own descriptive framework, which he believes fits the Tobelo findings more closely. It is also due in part to the fact that the Tobelo data do seem to depart from Berlin's model more than other systems described in the literature thus far.

One of the more interesting discussions focuses on covert categories. A *covert category*, as defined by Taylor, is a biological class lacking a linguistic label, the membership of which is determined by a feature matrix. Various approaches have been used by ethnobiologists to flesh out covert categories in folk biological taxonomies. Taylor criticizes earlier procedures based on perceived similarities among plants and animals, arguing—as I did some time ago (Brown 1974, *American Anthropologist* 76:325–327)—that such approaches yield groupings that are not necessarily linguistically relevant. However, Taylor does not give up on covert categories, but instead discusses methods that will reveal covert groupings that *are* linguistically pertinent.

One such method relates to co-hyponomy. According to Taylor, if two or more labels for two or more respective biological classes are found to be directly contrastive in actual language use, then those classes are necessarily members of a contrast set. Such a contrast set may or may not be dominated by a linguistic label. If not, then the taxa constitute the membership of a covert category, one that clearly is linguistically relevant.

Definitional implication constitutes a second method for determining linguistically relevant covert classes. For example, in English, the fruit of all species of oak and only species of oak is called *acorn*. Thus, implied in the definition of acorn is the concept *oak*. This would be true even if English lacked a term uniting all species

of oak (i.e., the word *oak*). In the latter case, *oak* would constitute a linguistically pertinent covert category, the psychological reality of which is implied in the definition of *acorn*.

Using these methods, Taylor isolates a number of suprageneric covert categories in Tobelo folk biological taxonomy. For example, the labeled folk generic category *ant* (Taylor uses the term *basic* to refer to traditional folk generics) is immediately included in a labeled *mere animal* class, which is immediately included in a labeled *animal* category, which is immediately included in the *covert* class FAUNAL FORM, which is immediately included in overt BREATHER, which is immediately included in covert SEXUAL BIOTIC FORM, which is, finally, immediately included in covert BIOTIC FORM. Thus, unlike the Berlinian model, which shows only two suprageneric taxonomic levels, Tobelo biological taxonomy shows six levels above the basic or generic rank. In addition, Tobelo taxonomy extends as many as four levels below the basic level. Therefore, there are 11 taxonomic levels in Tobelo folk biological classification, clearly the deepest nonscientific taxonomy ever described.

Such findings may have important implications for the study of folk biological classification in general. However, in no place does Taylor relate his empirical results to important larger theoretical issues of ethnobiology that have been raised by scholars such as Atran, Berlin, Bulmer, Hays, and Hunn, to name just a few. Instead, most of the text is given over to discussion of interesting, but sometimes tedious, details of Tobelo biological nomenclature and classification. In short, this is very much a data-oriented book, but one that could contribute significantly to theory if the author had been so inclined.

Finally, Taylor rightly emphasizes over and over again that the study of the semantic domain of plants and animals is just one facet of the study of the semantics of language in general, a point that is more than occasionally wasted on those who undertake ethnobiological research. Taylor's work exemplifies how research in the area of folk biosystematics can benefit from a deep understanding of linguistic phenomena in general.

Universe of the Mind: A Semiotic Theory of Culture. *Yuri M. Lotman.* Bloomington and Indianapolis: Indiana University Press, 1990. 288 pp. $45.00 (cloth)

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Yuri M. Lotman's book, *Universe of the Mind: A Semiotic Theory of Culture*, with an introduction by Umberto Eco, is a dense and ambitious project on cultural semiotics that derives its inspiration from a masterful synthesis of various and heterogeneous intellectual sources such as structuralism, poetics, cultural analysis, historical studies, and reception theory. However, although it is written by one of the leading figures of the Moscow-Tartu school of semiotics, this product provides neither a major theoretical model nor a particularly sharp focus. Any researcher who plans to use and operationalize some of the important concepts of the work will need to do intensive screening and critical sorting of the book's significant conceptual dimensions.