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It is not easy to know what to make of this book for people who read our journal and attend our meetings. For such people, surely, the science of phonetics rests upon a foundation of physiological and acoustic research, as well as psychological testing of hypotheses on the information-bearing elements of the acoustic signal and their underlying articulatory mechanisms. Readers with this outlook may find themselves feeling uncomfortable over the author's eclectic use of mainly impressionistic phonetic statements from a wide variety of sources of, seemingly, varying levels of reliability. This is generally so even though Maddieson, who is certainly not unsophisticated in these matters, does occasionally draw upon instrumental or psychological research.

The book is not one to be read from cover to cover. Rather, it is a reference book based on the UCLA Phonological Segment Inventory Database (UPSID), which resembles in some respects the nearby Stanford Phonology Archives (SPA). UPSID contains 317 languages, one from each major subgroup of each language family. This genetic sampling is meant to be typologically representative.


The book is really meant for linguists who need a statistically reliable base for the discovery of generalizations about phonological inventories that will be useful "in the formulation of phonological theories, in evaluating competing historical reconstructions, in constructing models of language change and language acquisition..." and can stimulate "important linguistically-oriented phonetic research" (p.1). Indeed, even without computer-access to UPSID itself, the linguist can make use of the well-planned organization of the book for such goals. Of course, the speech scientist who is not also a card-carrying linguist may well be interested in at least the last use mentioned. For the sake of this review, I have done a simple little test of the book by raising two questions that a speech scientist might ask. One is about how many languages, if any, exploit a given possible mechanism. The other concerns the accuracy of the phonetic statements taken from the literature.
In connection with questions of excitation-switching, one might want to know whether systematic use is made in any language of the possibility of moving from the local turbulence of a constriction in the supra-glottal vocal tract to continued noise-excitation of the vocalic formants of the relatively unimpeded tract upon release of the constriction, for some time before the onset of glottal pulsing as the next source. That is, just as there are aspirated stop consonants, are there also aspirated fricatives? (My hypothetical questioner finds the posited succession of events physiologically and acoustically plausible.) After a careful reading of Chapter 10 to learn the rules, one inspects the Segment Index (pp. 205-262) and finds, under Fricatives, an entry called Voiceless aspirated dental/alveolar sibilant fricative /'ʃʰ/ found in three languages: Burmese, Karen, and Mazahua. (Maddieson uses quotation marks around symbols to indicate imprecision in his sources as to exact place of articulation.) One then consults the Alphabetic list of languages with key to sources to find the phoneme charts, where the consonant in question can be viewed in a paradigmatic array of all the phonemes arranged as intersections of largely traditional phonetic features. Thus, for example, in the Sgaw dialect of Karen described by R. B. Jones in 1961, Chart 516 shows aspirated /ʃʰ/ is in contrast with plain /ʃ/ and a rare voiced /ʒ/. along with other fricatives. With only three languages in the data base showing this consonant type, we are further intrigued to find that two of them, Karen and Burmese, are genetically related in the Sino-Tibetan family, although they are in two branches of it, Karenic and Lolo-Burmese, respectively. (What we are not told is that there is extensive co-territoriality of these two languages in Burma.) The third language, Mazahua, is a member of the Oto-Manguean branch of “Northern Amerindian.” The latter information has to be found by scanning the Genetic listing of languages and outline classification (pp. 174-177); there is no cross-referencing between the lists.

As a way of testing for accuracy, I studied Chart 400 on Standard Thai, a language I have worked on for a long time both impressionistically and instrumentally. I was dumbfounded to learn that Thai has a voiceless dental sibilant affricate /kr̩/ and a voiceless aspirated dental sibilant affricate /kr̩ʰ/. Turning to the alphabetic list, I find that the author's sources are studies by Noss in 1954 and 1964 and Abramson in 1962! Both Richard Noss and I follow Mary Haas in describing these plosives as voiceless unaspirated and aspirated palatal or, perhaps, palato-alveolar affricates. Both of us as Thai speakers of a certain fluency and, I believe, accuracy, would certainly agree that anything resembling a dental affricate would be a mispronunciation. Of course, Maddieson, a very reputable phonetician in his own right, could show Noss and me to be wrong, but he simply cites us without comment. I hasten to add, however, that casual inspection of the charts of other familiar languages does not reveal anything so egregious, although I am doubtful about some of the descriptive labels here and there. Cambridge University Press deserves no praise for its use of inelegant double-spaced pale typescript for this book. The available technology makes possible much clearer and darker single-spaced camera-ready copy.

Maddieson has produced a book that every speech laboratory will want to have as a handy reference. Insofar as one is willing to make allowances for the varying reliability of the many sources consulted to form the data base, the investigator can indeed test a wide range of hypotheses on phonemic patterning across a representative sampling of languages. The chapters in the first half of the book are interesting, well-written expositions of the topics and the many difficult obstacles encountered in a task of this size.
FOOTNOTES

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