number of minor inconsistencies and small errors seems excessive. Contrary to the
‘Introduction’ (1), my article (see fn. 1 above) does not survey and evaluate both
the bipartite and tripartite dialect classifications. The phones [5] and [a] (5, 6)
are both underdefined as ‘dental voiced fricative’ (an error shared with Ristinen);
[a] (8) is alternately defined as ‘low ... central unrounded vowel’ and as ‘low back
unrounded vowel’ (so also in Ristinen). The morpheme šamač should be included
as an alternate plural morpheme (41) (in text, 76, line 2 from bottom; not glossed
anywhere). taške (81, line 21) should be added among ‘Other pronouns, b’ (44).
The alphabet (90) lacks d’ (cf. ind’oresni 94). The following glosses should be
added: bursem ‘I scold’ (cf. 17), ḗalan ‘everyone’, koldem ‘to bind’, pečem ‘to fence’,
and semia ‘family’ (cf. 42).

A phonetic study of West African languages: An auditory-instrumental survey.
By PETER LADEFOGED. (West African language monograph series, no. 1.) Pp.
ix, 74, with folding chart and 16 plates. Cambridge: University Press (in asso-
ciation with the West African Languages Survey), 1964.

Reviewed by WILLIAM J. SAMARIN, Hartford Seminary Foundation

If the size of a book determined the length of a review, this one would be brief
indeed: Ladefoged’s book can claim not much more than 230 inches of text, in-
cluding the introduction. I must add, to be sure, that there are 16 pages of plates
(with 25 photographs in all), 21 pages of word lists, 8 tables, 13 figures, 90 entries
in the bibliography, and 3½ pages of index. But one does not need many words to
announce the appearance of an extremely valuable book. This one is.

The author’s goal is modest enough. He has set out to describe ‘some of the
phonetic elements that are used to cause differences in lexical or grammatical
meaning in the languages under consideration’ (xiii). The approach is phonemic
in the broadest sense. He is ‘not concerned’, as he goes on to say, ‘with phonetic
description for its own sake’ (xiv). Since this is in fact true, a more faithful title
for the book might be The phonetic bases of some West African phonemic contrasts.

The study is further restricted by treating only of those ‘more unusual sounds’
(xiii) which were either omitted or inadequately described by Westermann and
Ward in their Practical phonetics for students of African languages (1933). Al-
though Ladefoged has had extensive experience with African languages, he has
limited this description to those which he could study systematically with the
facilities provided by universities in Senegal, Sierra Leone, Ghana, and Nigeria.
(We are not told how much time he spent in each place.) Since he limited himself
to the study of only those contrasts which he could elicit from native speakers
(xiv), the total number of languages is only sixty-one. In consequence, what the
survey lacks in comprehensiveness it makes up in uniformity. These languages
represent West Atlantic, Mande, Voltaic, Kwa, and Benue-Congo (of Niger-
Congo), in addition to Chadic (of Afro-Asiatic), Nilo-Saharan, and Krio. A single
family, Kwa, is represented by thirty-one languages. This disproportion is prob-
ably due to the availability of informants in Ghana and Nigeria, where Kwa
languages are well represented. The author claims that his investigation covered
‘nearly all the languages spoken by large groups of educated people’ in the four
countries in which he studied (xiii); but it is still true that West Africa was not
systematically covered. The triangle between Monrovia (Liberia), Abidjan (Ivory Coast), and Ouagadougou (Upper Volta) is not represented by a single language.

The bulk of the discussion is devoted to the consonant contrasts. Although vowels and tones are said to present relatively little of phonetic interest, Ladefoged has, in my opinion, made a notable contribution to our knowledge of the so-called tense and lax vowels. His contributions to the study of the consonants are so numerous that choosing examples is difficult. Some of these may interest only Africanists, like the contrast between an alveolar tap and what ‘appears to be a retroflex flap’ (30) in Hausa, but others will figure importantly in our understanding of linguistically significant phonetic events. In this category is the description of implosive and coarticulated stops. We learn from Ladefoged that the dichotomies egressive/ingressive and simple/coarticulated are too simple to account for the phonetic realities. Henceforth no one describing African languages should allow himself the luxury of using casually the terms ‘implosive’ and ‘glottalic’.

Ladefoged has also touched on some matters which have a bearing on linguistics more generally. He himself recognizes that his work ‘has some relevance to the problem of the nature of universal phonetic categories ... Addicts of distinctive feature theory’, he says, ‘will find plenty of new material here which challenges description in terms of the existing categories’ (xv). In his opinion too his data ‘make it possible to correlate a number of less usual articulations with the corresponding acoustic features’ (xvii). In three instances his discoveries challenge claims made by others about phonological universals. Thus he overthrows Hockett’s claim (1955) that no language has both kp and kw (11); and by showing that Idoma has five, if not six, points of articulation for the nasals, he refutes Hockett’s claim that the maximum is only four. Contradicting both Ferguson and Hockett, who suggest that no language has nasal continuants articulated at more places than the stops, Ladefoged points out that Igbira has four stops but five nasals (24).

Ladefoged has described his tests (18–20), his equipment (xvi), and his charts, plates, and tables (14) with great care. There is enough acoustic paraphernalia here to satisfy the most demanding of instrumental phoneticians, but there is also enough discussion to make it all useful for the student trained only in articulatory phonetics. The latter should find comfort in the fact that Ladefoged recognizes the value of the observer’s visual and auditory perception, for he writes that ‘instrumental phonetics may be a very powerful aid and of great use in providing objective records on the basis of which we may verify or amend our subjective impressions. But even the most extensive array of instruments can never be a substitute for the linguist’s accurate observation and imitation of an informant’ (xviii).

Discussing implosives, Ladefoged says that ‘Sounds with a glottalic airstream mechanism were found in some West African languages; but they were not as common as the literature implies’ (6). As a matter of fact, among the 56 word lists provided in the appendix, only three have implosive $b$, for which there is always a downward movement of the glottis with or without laryngealized voicing; these are Igbo and Kalabari (Kwa languages) and Kambari (Benue-Congo), all in Nigeria. But a downward movement of the larynx also occurs, sometimes
though not always, in ?b, with a particular mode of vibration of the vocal cords (16). ?b occurs only in Fula and Serer (West Atlantic) and in Hausa, Bura, and Margi (Chadic); all but Serer were studied with Nigerian informants. What the word lists conceal is that Yoruba gb and Idoma gb are also characterized by ingress. The complete picture for the first is velaric ingress and pulmonic egression, for the second velaric and glottalic ingress and pulmonic egression. The phonemic notation, in other words, has concealed a significant fact about the production of stops: ingress is more widespread than the lists lead one to imagine.

It seems to me that Ladefoged could have improved his study by giving more information about the distribution of the phonetic features which he so ably discusses. Since he had the data at hand, he had no need to use such terms as 'some' (6) and 'few' (7). A set of maps showing such distributions would have immensely raised the value of the book.

The rest of my comments are perhaps inconsequential when compared with the overriding merit of A phonetic study. The location of the plates, bound in after the text, is a nuisance, since they figure so importantly in the discussion. Similarly, since the vowel tracings in Figures 9 and 10 are identified only by numbers, it would have been better to have Table 6, which illustrates the vocalic contrasts, on the same page with these figures. (But the fault may be the publisher's and not the author's.)—The map showing the languages and home towns of the principal informants could have been improved in at least one way. Since the languages are grouped according to Greenberg's classification on page 43, this classification might have been made explicit in the listing of the names which accompanies the map on page xix. As it is, there is nothing to show that Kissi (no. 18) is West Atlantic and Loko (no. 20) is Mande. (I wonder if Ladefoged uses Greenberg's classification without really committing himself to it. He says of his legend only that it shows 'the typological spread' of the languages [xiii], not their genetic relationship, which is explicit in Greenberg's system.)—In an otherwise excellent subject index I miss any reference to 'phoneme', 'phonemic', and 'orthography', although these subjects are touched on more than once.

Ladefoged's book is the first monograph to appear in connection with The journal of West African languages; five others have already been promised. A considerable amount of field research has been carried on under the aegis of the West African Languages Survey, which was organized with Ford Foundation support in 1960 under the chairmanship of Joseph H. Greenberg. This first work is a credit to the Survey and augurs well for its future.


Reviewed by F. Gomes de Matos, University of Recife, Brazil

This preliminary work by a young Chilean linguist1 presents the rudiments of descriptive linguistics for students taking the course in General Linguistics offered

1 See Sol Saporta and Heles Contreras, A phonological grammar of Spanish (Seattle, 1962).