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Short review of A. A. al-Nassir (1993) *Sibawayh the Phonologist: A Critical Study of the Phonetic and Phonological Theory of Sibawayh as Presented in His Treatise Al-Kitab*

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A. A. al-Nassir: Sibawayh the Phonologist: A Critical Study of the Phonetic and Phonological Theory of Sibawayh as Presented in His Treatise Al-Kitab. Library of Arabic Linguistics, Monograph No. 10. London, New York: Kegan Paul International, 1993. xx+130 (+12pp. unpaginated Arabic translation of title page, Editor's Note, and Introduction). £55. ISBN 0-7103-0356-4.

Sibawayh, the greatest of Arabic linguists, was a Persian who lived in Basrah, Iraq, during the second half of the 8th century AD. His treatise Al-Kitab 'the book' is a comprehensive study of the Classical Arabic language, loosely organized into chapters that treat different topics in a rather haphazard fashion. Sibawayh the Phonologist (henceforth SP) brings together Sibawayh's various observations and thoughts on matters of phonetics and phonology, making them accessible to non-specialists for further study and exploration.

SP is organized into seven chapters: a brief description of the historical setting; two chapters on phonetic description and allophonic alternations; three chapters on morphophonemic alternations; and a conclusion that summarizes the author's observations about Sibawayh's phonetic and phonological theory. (The book also includes a very useful glossary of Arabic technical terms and a bibliography -- somewhat less useful, because it contains no items published after 1983.)

Figuring out Sibawayh's phonetic or phonological theory is

no simple task. The goal of Al-Kita'b is principally taxonomic, focusing on the classification of speech sounds and the phonological processes that affect them. Any taxonomy has a theory that underlies it, of course, but the theory underlying the taxonomy of Al-Kita'b is not expressed overtly. Instead, it must be inferred from other clues: the ordinary meaning of the Arabic words used in the classification; the way the classification is actually applied to Arabic; and sometimes a brief (often cryptic) explanation.

A couple of phonetic examples drawn from SP will illustrate the difficulties. Sibawayh divides the Arabic consonants (actually, the ``letters'') into two classes called majhu'r and mahmu's. The majhu'r consonants are these: b, d, ḍ, g, ʔ, ḏ, z, ḡ, dʰ, tʰ, zʰ, m, l, n, r, w, j, ʃ, aː, iː, and uː. The mahmu's consonants are these: t, k, f, θ, s, ʃ, x, h, h, and sʰ. The words majhu'r and mahmu's themselves mean `uttered loudly' and `whispered', respectively. Sibawayh's explanation, quoted by al-Nassir, is even less help: ``The majhu'r is a letter fully supported in its place and the flow of breath is impeded until the support is completed and the sound flows on...[The mahmu's is] a letter weakly supported in its place and the breath is allowed to flow with it.'' The actual classification seems to

correlate pretty well with voicing. True, tʰ, q, and ʔ are listed as majhuʔr, but there's reason to believe that the first two consonants may have been voiced at the time of the composition of Al-Kitaʔb, and the third certainly involves significant laryngeal activity.

Somewhat more mysterious is the term mustaʔliya 'raised', applied by Sibawayh to the consonants dʰ, tʰ, zʰ, sʰ, q, ʁ, and χ, but no others. Sibawayh describes these consonants as 'elevated toward the velum', and following this SP identifies mustaʔliya featurally as [+high]. Though tongue height is a necessary condition, it cannot be a sufficient one, because other [+high] consonants, k and j (and ɟʔ), are not classified as mustaʔliya. X-ray studies of the reflexes of the mustaʔliya consonants in the modern Arabic dialects show that they all share uvular place of articulation, as primary place for q, ʁ, and χ, and as a secondary place for the 'emphatics' dʰ, tʰ, zʰ, and sʰ (Al-Ani 1970, Ali and Daniloff 1972, Bukshaisha 1985, Delattre 1971, Ghazeli 1977, McCarthy 1994). Therefore, mustaʔliya must refer to the raising **and retraction** of the tongue body that are characteristic of uvular articulation.

Though he was obviously a skilled observer of the phonetic scene, Sibawayh's conception of phonological structure was

unfortunately based on the ḥarf, the 'letter', as smallest unit. This orthographic orientation leads to difficulties in accounting for certain kinds of phonological alternations. For example, Arabic has a process of closed syllable shortening, seen in /jaraː lwaladu/ → jara lwaladu 'the boy ran'. For Sibawayh (SP, p. 31), this is a rule of deletion of a ḥarf, because in the Arabic consonantal script the change is from jrʔ to jr. (The symbol for ʔ is also the mater lectionis for aː.) Likewise, compensatory lengthening, as in /muʔmin/ → muʔmin 'believer', is analyzed by Sibawayh as substitution of one ḥarf for another (SP, p. 86), because the orthographic transformation is from mʔmn to mwmn. (The symbol for w is also the mater lectionis for uː.) A final example: a phonological rule elides a short vowel between double consonants, yielding a geminate (/radada/ → radda 'he returned'). Sibawayh is concerned to explain why the same rule does not affect quwila 'he was addressed' (SP, p. 60) -- a puzzle, until one realizes that quwila is orthographically qwwl, with the **look** of double consonants.

Sibawayh's concern with the teleology of sound change will have a more familiar ring to it, at least in some circles. A central explanatory device for Sibawayh was the notion of phonological strength, which determines the victor and the

vanquished in processes of assimilation and elision. In its concluding chapter, SP collects and summarizes all of this material. Significantly, both positional and intrinsic strength of segments are recognized as relevant factors.

But the respect in which Sibawayh's conception of phonology seems most modern is his view of the rule-governed nature of phonological alternations. For Sibawayh, there is an underlying form, different from the surface, to which determinate phonological processes apply. He is exceedingly careful in establishing the various contextual conditions on these processes, as in his account of the umlaut process called ʔima:la, with its triggering and blocking segments and sequences (SP, pp. 91f.).

The book is nicely bound with a well-designed dust-jacket. Unfortunately, it is printed in a small and somewhat blurry typeface, evidently the product of a laser-printer rather than a true typesetter. The text is marred by a very large number of typographical errors, though few interfere with the sense, and the phonetic transcription relies on many ad hoc expedients. On the whole, the physical presentation of the book is disappointing, especially in view of its relatively brief text and extremely high price.

SP offers a convenient and useful collection of Sibawayh's insights into phonetic and phonological structure. It should be

accessible to phonologists or historians of linguistics who are not Arabists, if they have a nodding acquaintance with Arabic phonology. SP also touches on some themes, such as phonological strength, that are of interest in contemporary phonological theory, thereby increasing its value.

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