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METRICS OF ARABIC AND HAUSA POETRY

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1. Introduction

Metered Arabic poetry has a tradition extending back perhaps 1500 years (Arberry (1965) p. 1 and references cited there). Arabic meters are quantitative, using an interplay of light and heavy syllables. Light syllables have the form CV (consonant followed by a short vowel) and heavy syllables have the form CVV or CVC (consonant followed by a long vowel or by a vowel plus a coda consonant). In prosodic terms, light syllables have one mora and heavy syllables have two.

In the 8th century, the Arabic grammarian, lexicographer, and metrist, al-Xaliil ibn Ahmad, developed a theory of Arabic poetic metrics. Al-Xaliil's is a generative system with 16 underlying meters and a set of rules which derive the surface variants. All subsequent analyses of Arabic meters have recognized the same 16 meters that al-Xaliil identified, and all those analyses have utilized the basic metrical constituents which al-Xaliil proposed.

In the 19th century, Hausa poets began composing Islamic poetry as a vehicle of religious reform (Hiskett (1975)). These poets eschewed the metrical patterns of traditional Hausa poetry/song, a genre which they considered blasphemous, and chose, instead, the meters of Arabic religious poetry as their model. This worked well because both languages have distinctive vowel length and identical inventories of syllable types. Hausa poets today continue to compose verse in meters of Arabic origin. The metrics of this poetry have been the subject of a number of studies, most notably Galadanci (1975) , whose work has been influential in the study of Hausa poetry among Nigerian scholars, and Hiskett (1975) , the single most extensive study of Hausa poetry. Both these works utilize the analytical system of al-Xaliil.

In this paper, I will present the analysis of al-Xaliil and two other analyses which derive from that of al-Xaliil, viz. Ewald (1825) (as laid out in Wright (1967 [1896, 1898])) and Prince (1989) .[1] I will then claim that these analyses fail to state the generalizations that underlie Arabic meters and, perhaps more importantly, they fail to bring the analysis of Arabic meters into a broader framework of a universal theory of metrics. I will claim that the Arabic meters follow the principles of what I will refer to as "classical generative metrics" (or just "generative metrics" for short). This theory began with Halle and Keyser (1966) and has been applied in numerous studies for three decades. I rely particularly on Prince (1989) for exposition of basic principles and terminology. In order to compare the various analyses, I begin with a straightforward meter which poses few analytic problems for any of the systems discussed here. I then move to a more complex meter to show that not only does classical generative metrics account for this meter without the anomalies seen in the other systems, but also that it

[1]Time considerations will prevent me from discussing a third recent analysis, that of Golston and Riad (1994) . Golston & Riad's proposal is similar to mine in that it construes the true metrical *foot* (what they call the "verse foot") as being a subdivision of the Xalilian "foot". Our analyses differ in crucial ways, however. In particular, they claim that rhythm is an emergent property of metrics rather than being an inherent organizing principle. Following Prince (1989), I claim that the *metrical position*, a rhythmic unit, is the true primitive of metrics.

unexpectedly provides confirmation of a property of beat splitting proposed in Prince (1989).

2. The Meter *Kaamil*

Kaamil was the second most popular meter among Classical Arabic poets and is the most popular Arabic-derived meter among Hausa poets (see figures cited from Vadet (1955) in Schuh (1988) for Arabic and figures for Hausa in Schuh (1988)). The Xalilian analysis for Kaamil is given in (1). Al-Xaliil divided lines into *feet*, separated by slashes in (1). Each foot consisted of a combination of what he referred to as *pegs* and *cords* (metaphors based on tent construction—a verse of a poem in Arabic is referred to as a *bayt* 'house, tent'). The pegs of the most common foot types were iambs of the form v — (a light syllable plus a heavy syllable). The pegs in the schema in (1) are in boxes. Cords consisted of a single heavy syllable or, in the case of Kaamil and one other meter, Waafir, of two light syllables. Al-Xaliil's rule *'iḍmār* allows the cord comprising two light syllables to be realized as one heavy.[2] These alternatives are shown by v v in (1).

(1) **Xalilian analysis of Kaamil**

v v – [v –] /v v – [v –] /v v – [v –]

In (2) are three verses from a lyric poem in Kaamil by the 13th century Arab poet, Ibn Sahl. In (3) are verses from a poem by the prolific Hausa poet, Mudi Sipikin. The Xalilian scansion is given below each line.[3]

(2) **Example of Kaamil in Arabic:** IBN SAHL (Arberry, p. 134)

alʔarḍu qad labisat ridaaʔan axḍaraa — 'The earth had put on a green robe,
— — v — / v v — v — / — — v —

wa-ṭ-ṭallu yanšuru fii rubaahaa jauharaa — Whilst the dew was scattering pearls on its slopes.'
— — v — / v v — v — / — — v —

haajat faxiltu͡z-zahra kaafuuraan bihaa — 'It stirred and I supposed the flowers were camphor there,
— — v — / — — v — / — — v —
wahasibtu fiiha͡t-turba miskan ʔaðfaraa — And I thought the soil there was pungent musk.'
v v — v — / — — v — / — — v —

wa kaʔanna sausanahaa yuṣaafihu wardahaa — 'And it was as though earth's lilies were embracing her roses
v v — v — / v v — v — / v v — v —
θaɣrun yuqabbilu minhu xaddan ʔaḥmaraa — Mouth kissing red cheek.'
— — v — / v v — v — / — — v —

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[2]My primary source for the Xalilian rules, called *ziḥāfāt* 'deviations' and *ʕilal* 'defects', is Maling (1973) , who states them as did al-Xaliil in terms of the mnemonic spelling of the foot names in Arabic orthography. I have also consulted Galadanci (1975) , who states the *ziḥāfāt* and *ʕilal* in a metrically more principled way in terms of moras and syllables.

[3] Examples of Arabic poetry, translations, and information on poets are from Arberry (1965) . My thanks to Michael Fishbein for helping me with the transliteration. Translation of the Hausa example in (3) is my own.

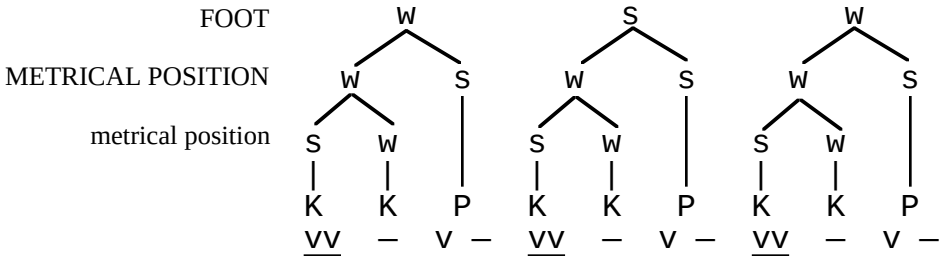
(3) **Example of Kaamil in Hausa:** MUDI SIPIKIN (Sipikin 1971:23)

Wàllaahì in haɗ̃ mun tsayàa mun bincìkaa, — — v — /— — v — / — — v —	'I swear that if we stop and investigate,
Zaa mùi tùnàanii mài yawàa gun zuucìyaa. — — v — /— — v — / — — v —	We will think profoundly in our hearts.'
Dòomin à lootàn nan dà jaahilcìi ƙwaɗ̃ai, — — v — / — — v — /— — v —	'For in that time of great ignorance,
Bà sù san àbîn dà akèe cikii ba na duuniyàa. v v — v — / v v — v — / v v — v —	They didn't know what was going on in the world.'
Kuma bâa kàɗ̃àatuu mài yawàa fa à zaamànîn, v v — v — / — — v — / v v — v —	'And there was not much learning in that time,
Sai dai àkwai hikimàa ƙwaɗ̃ai don gaskiyaa. — — v — / v v — v — / — — v —	But nonetheless there was much talent in truth.'

Unlike al-Xaliil, whose generative account sets up underlying patterns with rules accounting for surface variants, Ewald (1825) gives a taxonomy of surface patterns. He groups the meters according to what he considers to be the metric structure of the basic foot type for each meter. He has four such groupings: *iambic*, *antispastic*, *amphibrachic*, *anapæstic*, and *ionic.* For each meter he lists the variants of the meter itself and also the variants for each foot. Thus, for example, he includes Kaamil among his "iambic" meters, presumably because each foot consists of two iambs (counting v̲v̲ as the light portion of the first iamb). Ewald lists both the full, or *acatalectic* version of Kaamil, illustrated in (2), where the last foot of a line is realized v̲v̲ — v —, and a catalectic version, where the last foot is realized as v̲v̲ — —. For al-Xaliil, both versions have the same underlying form, with catalexis being derived by applying the rule *qaṭʕ* to the last foot. As al-Xaliil formulates the rule, it has the effect of dropping a mora from the final syllable and combining the remaining mora with the single mora of the preceding light syllable to create a heavy syllable. Though the principles underlying al-Xaliil's and Ewald's analyses are different, the structural description of the illustrative lines of verse in Kaamil above ends up being the same, viz. linear groupings of feet having the form v̲v̲ — v —.

The Arabic meters have been the subject of a number of modern generative accounts. Most of these, e.g. Halle (1966) , Maling (1973), Prince (1989), have not been metrical analyses of Arabic verse *per se*, but rather have been reformulations of the Xalilian *system* in modern generative terms. Maling (1973), the most extensive such study, is an attempt to capture the generalizations of al-Xaliil's rules (his *ziḥāfāt* and *ʕilal*—see fn. 2) in terms of traditional linear generative phonological rules. Prince (1989) applies classical generative metrics to describe the Xalilian meters in terms of metrical trees which project feet comprising alternating (*W*)*eak* and (*S*)*trong Metrical Positions* (MP's). He interprets the Xalilian pegs (P) as projecting from strong metrical positions and the cords (K) as projecting from weak positions. Under Prince's analysis, Kaamil would have the structure in (3). Prince views a cord as being invariably a heavy syllable, with the light-light variant in Kaamil being a *resolved* cord (p. 68). By Prince's (1989:55) principle of Maximal Articulation all metrical branching must be binary. Al-Xaliil's two cords in each foot therefore fall under a single W position, which projects two sub-positions, a phenomenon which Prince refers to as *beat splitting*.

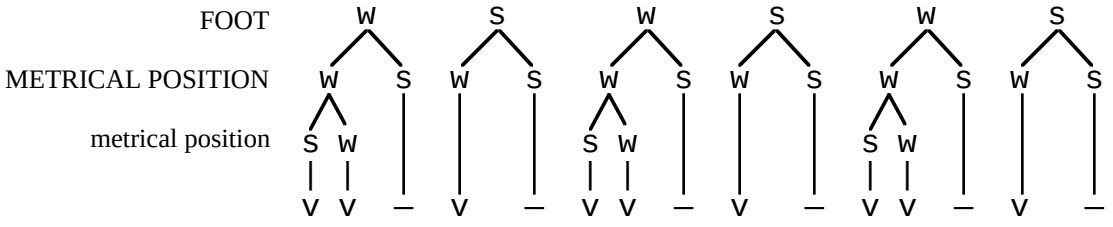
(3) **Prince's (1989) analysis of Xalilian feet for Kaamil**



A fundamental problem with all the modern generative analyses mentioned above is the assumption that the units of the Xalilian system are the primitives of Arabic metered verse. That this is a problem is not so evident in Maling (1973), because she does not cast her analysis in terms of a theory of metrics. It is, however, evident in Prince's analysis. When one looks at how the structure in (3) matches the syllables of a line of verse, there is something amiss as compared with the way metrical analyses have been applied to poetry in languages such as English or Greek. In particular, the S METRICAL POSITIONS project a single element in Al-Xaliil's analysis, viz. a Xalilian peg (P), but in lines of verse, Xalilian pegs always comprise two syllables. Similarly, the first sub-position in each FOOT appears to project a unit, viz. a Xalilian cord (K), but this position frequently comprises two light syllables in Kaamil, i.e. the so-called "resolved" version of the cord. In all other applications of generative metrics known to me, immediately pre-terminal nodes of a metrical tree project single syllables.

If we abandon the notion that the Xalilian pegs and cords are primitives from which feet are built and look, instead, at the actual syllabic make up of a line of verse, the correct generative metrical analysis becomes immediately obvious. The Xalilian pegs are paired W-S positions, i.e. iambic feet. The Xalilian cords are likewise paired into feet. These feet are anapests when the first cord in a pair is resolved as vv. They could be interpreted as iambs when the first cord in a pair is realized as — inasmuch the foot then comprises a single syllable in a metrically weak position paired with a single syllable in a metrically strong position, though in Arabic meters, the traditional labelling of foot types as iambs, trochees, anapests, and dactyls turns out to have only limited use. In metrical tree notation, the structure in (4) is clearly the correct one for Kaamil. I have shown all feet as maximally articulated, i.e. with the W position as split where this is an option. The interpretation of these split positions as S W (as opposed to W S or unlabeled) is discussed further below.[4]

(4) **Generative metrical analysis of feet for Kaamil**



[4]An issue which I will not take up here is metrical structure above the foot level. Prince (1989:55) proposes a principle of Uniformity which groups alternating W and S feet into metra and alternating W and S metra into lines. There is some evidence for grouping feet into metra in Arabic, e.g. in Kaamil, each metron would be a pairing of an anapestic and an iambic foot. Evidence is less clear for labelling the feet, and even less the metra, as alternating W and S. Note that the *metra* of Kaamil in this analysis correspond to Xalilian "feet".

3. The Meter *Basiiṭ*

Kaamil lends itself well to an analysis in terms of classical generative metrics because lines admit no variation other than the alternatives v̲v̲ and because lines of Kaamil can be broken down into anapestic and iambic feet, which have clear W-S rhythmic properties. Some meters do not lend themselves so obviously to this type of analysis. One such meter is Basiiṭ. The Xalilian analysis of this meter is given in (5).

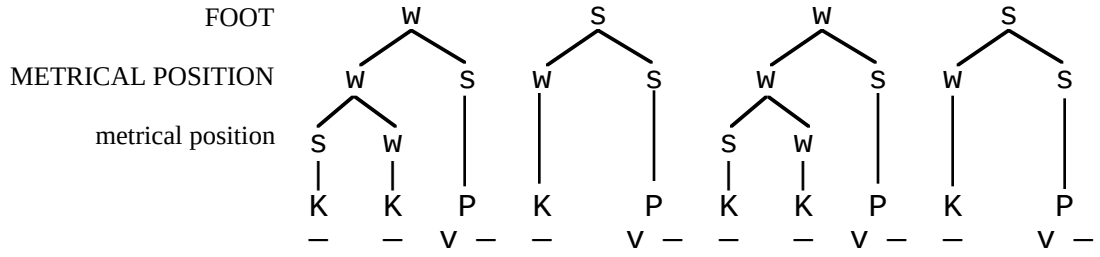
(5) **Xalilian analysis of Basiiṭ**

– – [v –] / – [v –] / – – [v –] / – [v –]

In contrast to Kaamil, where each Xalilian foot has four positions which can be readily interpreted as alternating W and S, the Xalilian feet in Basiiṭ alternately have three and four syllables. Moreover, there is no obvious way to break the line down in terms of alternating W and S.

Prince (1989) gives the analysis in (6), but this analysis has the same problems as those pointed out with his analysis of Kaamil, viz. pegs are treated as metrical units even though they always disyllabic, and in the first and third feet we are presented with the counterintuitive situation with two heavy syllables in a W position and an iamb in the S position.

(6) **Prince's (1989) analysis of Xalilian feet for Basiiṭ**



There is, however, a more fundamental problem with al-Xaliil's representation of Basiiṭ and, as a consequence, with Prince's, which is a generative metrical reinterpretation of al-Xaliil. The problem is that al-Xaliil's *underlying* representation never appears as such in actual Basiiṭ verse, a fact which becomes apparent when one examines lines of Arabic verse rather than al-Xaliil's abstract account of it. Consider the following typical lines of verse in Basiiṭ by the 6th century poetess al-Khansā':

(7) **Example of Basiiṭ:** AL-KHANSĀ' (Arberry, p. 38)

ʔinnii ʔariqtu fabittu͡llayla saahiratan — — v — / v v — /— — v — / v v —
'I was sleepless, and I passed the night keeping vigil,

kaʔannamaa kuḥilat ʕaynii biʃuwwaari — — v — / v v — / — — v — / — —
'As if my eyes had been anointed with pus.'

ʔarʕaa͡nnujuuma wamaa kulliftu riʕyatahaa — — v — / v v — / — — v — / v v —
'Watching the stars—and I had not been charged to watch them,

wataaratan ʔataɣaššaa faḍla ʔaṭmaari v — v — / v v — / — — v — / — —
And anon wrapping myself in the ends of ragged robes.'

waqad samiʔtu walam ʔabjaḥ bihii xabaran	‘For I had heard—and it was not news to
v — v — / v v — / — — v — / v v —	rejoice me,
muḥaddiθan jaaʔa yanmii rajʕa ʔaxbaari	One making report, who had come repeating
v — v — / — v — / — — v — / — —	intelligence.’

Hausa verse in Basiiṭ shows similar variants, as in the following lines from the late Sa’adu Zungur’s *Waƙar Bidi’a* [Song of Heresy]:[5]

(8) **Example of Basiiṭ in Hausa:** SA’ADU ZUNGUR (Zungur 1968:1)

Allaahù yaa yi ùmùr̃nii duk ga Àl’ummàa,	‘God has ordained that the whole nation,
— — v — / v v — /— — v — / — —	
À kân riƙòn igiyàr̃sà da tattalin jàma’àa.	Should cling to His rope and care for their
v — v — /v v — /v v — v — / v v —	fellows’
Kuma kâr̃ a ràrrabà don kooyìi dà Àl’ùmmai,	‘And we should not become divided and
v v — v —/v v — / — — v — / — —	copy the nations,
Dà sunkà saaɓà ùmùr̃nii sunkà bar ɗaa’àa.	That have disobeyed His ordinance and left
v — v — / v v — /— — v — / — —	their submission.’
Yȧu gàa shi mun saaɓà juunaa mun zamoo bambam,	‘Yet see, today, we are divided one from
— — v — / — v — /— — v — / — —	the other and at variance,
Bisà kân Hàdiisìi na Mànzoo Annabìn saa’àa.	In accordance with the tradition of the
v v — v — /— v — / — — v — / — —	Messenger, the blessed Prophet.’

It is here that Ewald’s (1825) analysis is useful, because Ewald presents only the occurring surface variants. We can therefore determine from Ewald what the real patterns in verse are without counting thousands of lines of Arabic poetry. For Ewald, the “base” of Basiiṭ is as in (9a), with common variants for each foot in (9b):[6]

(9) **Ewald’s (1825) account of Basiiṭ**

a. “Base”: v — v — / v v — / v — v — / v v —
b. Variants: — — v — / — v — / — — v — / v̲ v̲ —
(— — in the last foot appears only as the last foot of a verse)

Presumably, Ewald considers the variants in (9a) to be the “base” because they are the more frequent in lines of verse. Al-Xaliil’s underlying representation, however, more closely resembles the variants in (9b). Al-Xaliil derives the (9a) variants by deleting the second mora of the first cord of each foot by the rule *xabn*. In the Xalilian system the final foot obligatorily undergoes *xabn*, or, as an alternative in the the final foot a verse, an entirely different rule, *qaṭʕ*, mentioned above, which converts — v — to — —. Not only is the entire scheme baroque, it provides no explanation for why this meter has just those variants in (9) or why certain variants are preferred over others.

On the other hand, Ewald’s “base” variant in (9a) lends itself directly to an analysis in terms of the generative metrical tree in (10). Positions which allow either a light or heavy syllable are indicated as v̲. Only the variant with a split W metrical position is shown in the last foot:

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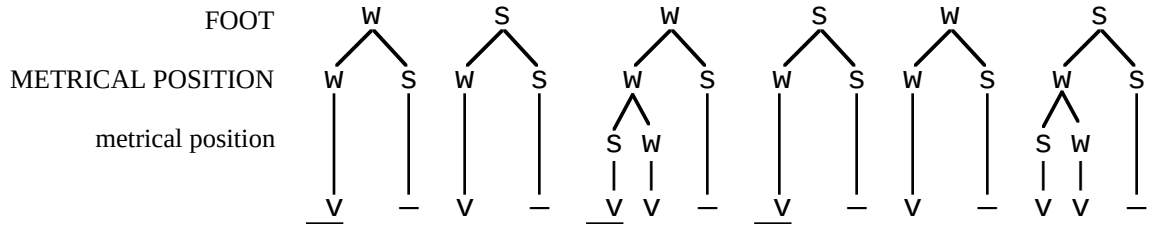
[5]The text was originally published in Zungur (1968). The translation is from Abdul˚adir (1974).
[6]There a few other rare variants, e.g. the first and third “feet” can be realized — vv —, but the “full” underlying Xalilian variant never occurs.

(10) **Generative metrical analysis of feet for Basiiṭ**



In terms of traditional foot types, a line of Basiiṭ consists of a pair of half lines, each of which has the form iamb-iamb-anapest. As in Kaamil, the first and fourth feet can be interpreted as iambs even when the the first metrical position is filled by a heavy syllable inasmuch as the foot consists of a single syllable in a weak position paired with a single syllable in a strong position. Hausa allows a variant which apparently does not exist in Arabic, viz. Hausa allows vv in the first and seventh metrical positions (the initial cords of the first and third Xalilian feet). This is seen in the initial position of the third and fifth lines of (8). Note that these lines begin with a syllable sequence identical to Kaamil. An example of vv in the seventh metrical position is seen in the second line of (8).

Of particular interest is the third foot of (10), where the obligatorily split W metrical position can be realized as vv or as — v. Prince (1989:52-53) addresses situations of this type, noting that when a metrical position is split, the subdivided positions must always be in a S W relation in order to retain metricality. He relates this directly to the rhythmic properties of music, noting that in music, when beats are split the accent will always fall on the first member of the split beat, as in (11):

(11) ♩ → ♪♪ , not → *♪♪

Prince cites a number of pieces of evidence from the stress-based system of English metrics for this claim. The evidence shows that in split metrical positions, a [-stress] [+stress] configuration invariably results in unmetricality. Bruce Hayes (p.c.) has referred to this as "the dawn's early light" phenomenon, based on the first line of "The Star Spangled Banner". Compare the real first line in (12a) and an unmetrical construct in (12b). Words in small caps are in strong metrical positions, words in lower case are in weak positions. Acute accent represents primary stress, grave accent is secondary stress, and no accent is unstressed. The position of interest is underlined:

(12) a. Òh SÁY can you SÉE by the DÁWN'S éarlỳ LÍGHT?

b. *Òh SÁY can you SÉE by the DÁWN'S redúced LÍGHT?

The v v — feet in Basiiṭ provide confirmation for Prince's claim from a system of *quantitative* metrics. I claim that it is not a feature to specific to Basiiṭ nor an artifact of the analysis that the configurations — v — and vv —, but not *v — —, are metrical possibilities for the feet in question. While I cannot, at this writing, produce any additional empirical backing from Arabic metrics for this observation, I have found the same pattern to hold in a variety of meters in Hausa (see in particular Schuh (1995)). Within Basiiṭ, Hausa extends this possibility in a way which does not occur in Arabic, viz. the — v — alternative is allowed in the fourth Xalilian foot as well as the second.

An example is the opening line of the poem in (8), seen in (13).[7] Hausa thus treats the two halves of a line in Basiiṭ as symmetrical whereas in Arabic they differ subtly.

(13) Kà ɗaurà niyyàa à kân waaƙàa kanàa addu'àa. 'Confirm your intent to sing as you pray.'
v — v — / — v — / — — v — / — v —

Of interest in comparing the structure in (10) with al-Xaliil's underlying pattern for Basiiṭ in (5) is the fact that the pegs of his second and fourth feet do not form constituents. The pegs in Kaamil and the pegs of the first and third feet of Basiiṭ do form constituents at the foot level in that they are iambic feet. However, in the second and fourth Xalilian feet of Basiiṭ, the light syllable of the peg belongs to the W metrical position and hence is in most direct constituency with the *preceding* syllable, i.e. al-Xaliil's cord, not with the following syllable, which forms part of al-Xaliil's peg.

4. Conclusion

The system of metrics for Arabic poetry proposed by al-Xaliil some 13 centuries ago remains a useful frame of reference for Arabic meters and poetic traditions derived from meters of Arabic poetry, such as that of Hausa. However, the Xalilian system is idiosyncratic to this single tradition, rendering opaque any relationship between Arabic metrics and other systems of metrics. Moreover, it does not provide an explanatory account of the realizations of meters in actual verse.

Published generative accounts of Arabic meters have not fared much better than al-Xaliil himself on either count for the reason that these generative accounts were recasting al-Xaliil's system rather than considering Arabic poetry. If we look at the poetry itself, Arabic meters turn out to conform in a straightforward way to the canons of classical generative metrics, which has the *metrical position* as its basic unit. This paper demonstrated this with two Arabic meters, Kaamil and Basiiṭ, showing in the latter case that the quantitative Arabic metrical system conforms to a generalization noted by Prince (1989) that a split metrical position is always realized as S W.

REFERENCES

Abdulƙadir, Ɗ. 1974. *The Poetry, Life and Opinions of Sa'adu Zungur*. Zaria, Nigeria: Northern Nigerian Publishing Company, Ltd.

Arberry, A. J. 1965. *Arabic Poetry*. Cambridge: Cambridge University Press.

Ewald, G. H. A. 1825. *De Metris Carminum Arabicorum Libri Duo*. Braunschweig.

Galadanci, M. K. M. 1975. "The poetic marriage between Arabic and Hausa." *Harsunan Nijeriya* 5:1-16.

[7]Though Hausa poets do allow this variant, there is nonetheless a tendency to conform to the canonical Arabic structure. In the 170 lines of Sa'idu Zungur's *Waƙar Bidi'a* from which the lines in (8) and (13) are taken, 108 have the variant — v — in the third Xalilian foot (56 have vv — and 4 have — —, also not a variant found in Arabic, which requires that this position be split), whereas only 5 lines have the — v — variant in the fourth Xalilian foot (95 have vv — and 70 have — —).

Golston, C. and T. Riad. 1994. "Prosodic metrics." Paper presented at the Annual Meeting of the Linguistic Society America, 1994.

Halle, M. 1966. "On the metrics of pre-Islamic Arabic poetry." *Quarterly Progress Report of the Research Laboratory of Electronics 83,* pp. 113-116. Cambridge, MA: MIT Press.

Halle, M. and S. J. Keyser. 1966. "Chaucer and the study of prosody." *College English* 26:187-219.

Hiskett, M. 1975. *A History of Hausa Islamic Verse*. London: School of Oriental and African Studies.

Maling, J. M. 1973. "The theory of classical Arabic metrics." Doctoral dissertation, MIT.

Prince, A. 1989. "Metrical forms." In P. Kiparsky and G. Youmans (ed.), *Phonetics and Phonology, Volume 1: Rhythm and Meter*, pp. 44-80. San Diego: Academic Press.

Schuh, R. G. 1988. "Préalable to a theory of Hausa poetic meter." In G. Furniss and P. J. Jaggar (ed.), *Studies in Hausa Language and Linguistics in Honor of F.W. Parsons*, pp. 218-235. London & New York: Kegan Paul.

Schuh, R. G. 1995. "The metrics of three Hausa songs on marriage by Dan Maraya Jos." Ms., UCLA.

Sipikin, M. 1971. *Tsofaffin Waƙoki da Sababbin Waƙoki na Alhaji Mudi Sipikin* [Old and New Songs by Haj Mudi Spikin]. Zaria, Nigeria: Northern Nigerian Publishing Company, Ltd.

Vadet, J. 1955. "Contribution à l'histoire de la métrique arabe." *Arabica* 2:313-321.

Wright, W. 1967 [1896, 1898]. *A Grammar of the Arabic Language*. Cambridge: Cambridge University Press.

Zungur, S. 1968. *Waƙokin Sa'adu Zungur* [Songs of Sa'adu Zungur]. Zaria, Nigeria: Northern Nigerian Publishing Company, Ltd.