On the nature of metrical phonology of Iraqi Arabic: A non-linear approach

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Abstract

The paper is an in-depth study of how the principles and rules of the metrical theory of phonology have found their way to apply to Iraqi Arabic words and expressions. Iraqi lexical items have amassed evidence illustrating that both foot and stress are the hub of phonological designs of parametric prominence entailed in mapping and building up word syllables. Nevertheless, this is not a free-for-all which is far beyond restrictions or exceptions. Some constraints are not imposed to deviate from the metrical norms of Iraqi words nor some exceptions are made to distort their lexical frames, but rather they are adopted to emphasize that any theory's premises are generally the same but its applicable ends are definitely different in so far as the language or the dialect in question is concerned. The paper also digs deep certain metrical phenomena taking place in Iraqi word stress patterns like the extra metrical behavior of some word syllables and segments, and cyclic and non-cyclic parameters of some morphological operations of words.

Keywords: Metrical Phonology; foot, Stress; Prominence; Extrametrical Phenomenon; Iraqi Arabic.

1. Introduction

It is beyond doubt that Metical Phonology (MP) has been an overwhelmingly favorable response to three undeniable issues: it reconsiders the phonological nature of stress in order to improve it and surpasses its traditional parameters, it resurfaces something lost or missing in understanding stress as being a relational notion far more than a distinctive feature and it reshuffles word stress placement by furnishing it not only with a kind of content based on the phonetic implementation of rules but also with a binary branching tree-diagram having two nodes, i.e. strong (S) and weak (W) nodes. It is worth stating that MP is not a theoretical "counter-revolution" against the phonological theory of *SPE* but it is a practical "corrective revolution" whose trajectory is to emerge the layers of metrical structures governed by particular regularities and generalizations.

Suffered a lot of drawbacks to crystallizing a convenient, satisfactory approach to stress, standard generative phonology, i. e. the *SPE* model, has failed to deal in such units as syllables, units beyond syllables, and minor morphemic units.

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This unjustifiable failure initiates a kind of adverse consequence related to both word stress patterns and rhythmical symmetries of items larger than words. Hence, MP is set up to straddle such a gap and to fill such a blank in an attempt to reach a compromise as to how metrical rules and operations can best be used to create a new dimension in the phonology of stress. The portraits of generative rules and processes of the notion of stress are not mere decoration; they need to be thoroughly re-scrutinized and adequately re-designed in order to obtain a school of post-generative thought of phonology whose attraction is chiefly based on its novelty value, i. e. MP.

The present study makes a concerted effort to encompass the underlying representations of word stress patterns of Iraqi Arabic from an MP angle. It is totally devoted to broadening the MP theoretical horizons to empirically involve a variety of Iraqi daily words and expressions whereby it is possible to evince that MP is a theory of phonology that is of a theoretically universal-based orientation on the one side and it is of a language/dialect-specific application on the other side. To reach the utmost level of reliability, validity, and objectivity, this paper relies on different corpus sources taken from Ghalib (1984). The adopted copra or data reflect various lexemes and expressions of daily and colloquial use of Iraqi Arabic. Word phonemic transcriptions side by side with its cognate translations are systematically provided for each example cited.

2. Literature Review

2.1. Feet and Stress: Minor Premises and Major Conclusions

In any language or a dialect, sound segments are systemically incorporated into particular phonological representations, whether being of a linear symmetry or non-linear one. The latter more adheres to the principles of MP than any other domains and makes an ad hoc basis of a hierarchal model of phonological units like the syllable, the foot, and the word. Sound segments are also viewed from the perspective of being the bottom of such a phonological pyramid. All of these phonological units entail some sort of phonetic "perquisites" that make them phonetic entities in prior and hence are accounted for on an articulatory ground (Goldsmith, 1989; Durand, 1990).

Concurrent as it is with the syllable, stress is not usually reckoned as one of the phonological units for different reasons. In the first place, it is a supra-segmental concept whose realm extends above segments (elements) of a syllable. Next, it phonetically embodies a particular degree of force with which a syllable is uttered. Thirdly, it is audibly perceived with a sort of "prominence" whose phonetic values are basically monitored by the extent to which syllabic components are more sonorous than their own adjacent ones (Roger, 2000; Ashby, 2011; Wayland, 2019). As such, stress is of a relational aspect that is possibly identified among syllables instead of among the sound elements of a syllable.

The tangled web of prominence factors among syllables needs something larger to contribute vividly to define it. The foot introduces itself as a phonological unit with recurrent properties that stipulate certain contexts in which stress-placement rules must accord with foot-assignment ones. To put it in practical terms, the overall picture of a hierarchy of phonological units can panoramically be illustrated when an Iraqi word like /waxˡxarit/ "I stood aside" is tree-diagramed as in (1): (Note: R is a rhyme, On is an onset, P is a peak and Co is a coda)

(1)
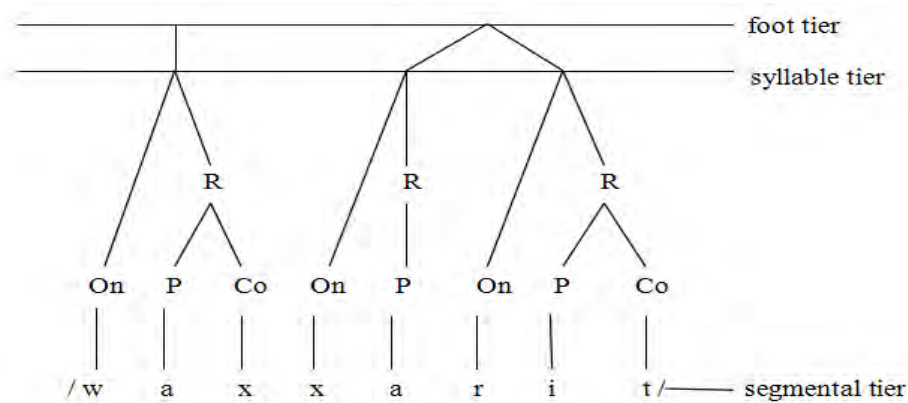
Example (1), then, expresses that the word /waxˡxarit/ is composed of two feet: /wax-/ and /xa-/. The latter carries the primary stress, whereas the former receives the secondary stress (i. e. both of them are stressed with two different grades of prominence). The final syllable /-rit/ is the weakest one and thus it is unstressed.

Phonologically speaking, the foot has to commence with a stressed syllable including any unstressed ones, and must be terminated before the next stressed one. In conformity with its syllabic tier, the above-mentioned word example consists of three syllables, two of which (the antepenultimate, i.e. the initial, and the final ones) have a three-element template: On, P and Co, but the penultimate, i.e. the pre-final, syllable is of a two-component structure: On and P. The segmental tier, as its label suggests, stands for those sound segments that sketch out the word phonemically.

The metrical skeleton is now required to be attached to any lexical item to reveal the behind-the-scenes prominence relations that keep the phonological representations of particular words from collapsing into the chaos of structures. Being held within word stress patterns, the prominence relations create to-the-point conditions ripe for the relative weight between constituents of a tree diagram. That is, it is necessary to compass which syllable is more prominent than others and which foot is stronger than others (Hogg & McCully, 1987).

Earlier in the introduction of this paper, a reference has been made to the fact that the MP theory carries considerable clout to interpret stress-placement operations within words and expressions and thereby to apply them fruitfully in a form of metrical trees whose branching structure is of two labels (S) and (W). This revised tree-diagramed procedure guarantees that the strictly relational description of S and W would reinforce the necessity of expressing prominence relations in any particular metrically notational system of word stress patterns. So, the entire tree diagrams would be re-drawn to elucidate different feet, different numbers of syllable and different stress-placements that meet the need of the metrical build-up of Iraqi words as in /misˡwadd/ "it has become black" and /ˡbitʃa/ "he cried" of (2) and /ˡwazinha/ "its own weight" and /siˡdʒana/ "he put him in jail" of (3):

(2)
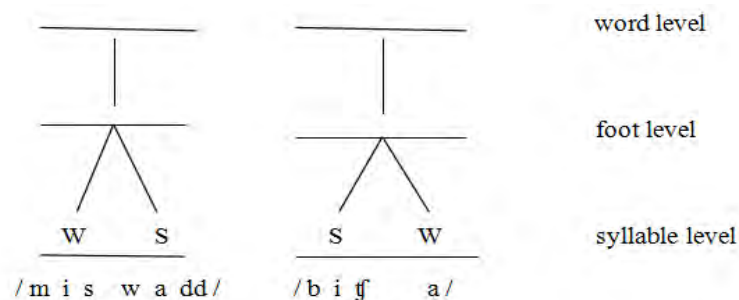
(3)
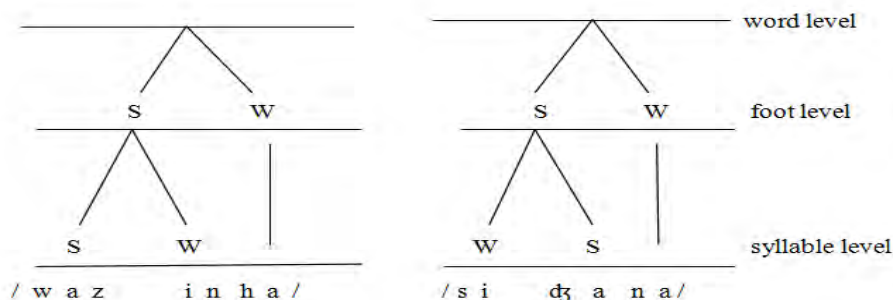
The foregoing metrical trees of Iraqi words track closely with the form of underlying representations that are determined and governed by regularities whose intrinsic principles give the green light to emerge not only phonological details like the light/heavy dichotomy of a syllable weight but also to unveil morphological accounts on which type of affixation is likely involved within the lexically interwoven texture of words in general. For example, the former case is demonstrated by such a heavy syllable as /-wadd/ of the word /miswadd/ and by a light syllable like /si-/ of the word /siʤana /. The latter case is illustrated by suffixes like (-ha) of the word /wazinha/ and (-a) of the word /bitʃa/.

Admittedly, better to subsume the metrical structures of Iraqi lexical items under a system of two-axis rules, even if this cohesion may be particularly burdensome when the boundaries of phonological units are delineated. The system of two-dimension rules underscores a link of another kind: both foot-level rules and word-level rules are set up to operate coincidentally (Halle & Vergnaud, 1987; Giegrerich, 2009). The rules that govern foot-level structures assign feet to syllables in an attempt to specify the degree of stress with which a syllable is emitted. Word levels, however, need to be organized in accordance with certain rules whose assignment is to exceed the parameters of any unit beyond the word.

3. Method

Having twinned prominence with feet and then with words, a metrical study as this paper deals with embraces some sort of a description and analysis of Iraqi data (taken from Iraqi colloquial speech as documented in Ghalib (1984)) depending on a metrically-centered tree diagram whose design is composed of three layers: word, foot, and syllable. This cocktail-based design is saliently viewed as the cornerstone of any metrical representation required to apply to whatever a language or a dialect' lexical items may be. In addition, some metrical notations, i. e. S, W, and angled brackets are also adopted to draw a broader and clearer picture of how Iraqi words' diagramed figures.

4. Metical Phonology and Parametric Prominence of Iraqi Words

Of the bare essentials that have extremely quickened the birth and then the growth of the conceptual track of MP is that MP, in essence, is brought about as being of two distinct versions of outlining the notion of stress. The first, albeit traditional, one is set forth to detach stress from the realm of *the SPE* model and to spell out in detail how it is supposed to be a structural position (Liberman & Prince, 1977; Halle & Vergnaaud, 1978). As has been stated so far, to be a structural position, stress has to be tackled in relation to both feet and syllables of given words. The foot, by its phonological nature, is typically conceived of as having two syllables: strong and weak depending on the degree of stress according to which they are pronounced.

Strikingly, the floating-issue is that the structural position of stress is represented and perceived differently as to how the words of a particular language or a dialect employ it. Iraqi Arabic, as seen in the previous examples, is a variety that draws firm lines of demarcation among stressed, unstressed, heavy, and light syllables. Its word syllabic templates and suffix attachments are "potent forces" in showing stress-placements.

In the second and more amended version of MP, theorists' eyes have been cast not only to elaborate on the old version in which stress is fundamentally viewed as a relational device among feet and syllables but also to force the pace on stress patterns in the light of a four-parameter set: right/left dominant, bounded/unbounded, left to right/right to left and quantity-sensitive/quantity-insensitive (Hayes, 1981; Prince, 1985). What is worth noting in dealing with these typological parameters is that all of them work simultaneously and the Iraqi Arabic word stress is, in a way or another, involved in them.

To begin with, Iraqi Arabic is an unbounded dialect whose words are governed by the following stress pattern: a primary-stress syllable performs a function of the head and thus it has a tight rein on monitoring all of the preceding or following syllables. This parameter, in turn, greatly strengthens the case of the Iraqi stress system which stipulates that the primary stress is not placed at a fixed distance from word boundaries but rather at a variable one. It is "enticed" into heavy syllables (i. e. syllables whose structures are terminated by a long vowel or a diphthong or by a short vowel followed by a consonant) and sometimes super-heavy syllables (i.e. syllables whose structures end in a long vowel followed by one consonant or a short vowel followed by two consonants) without regard to the distance that isolates the heavy or super-heavy syllable from the peripheral of the word. The primary or the main stress would be thus located on either the first (the penultimate) or the final syllable on the condition that the words in question are of disyllabic structures.

The allocation of primary stress in Iraqi disyllabic words resides in how syllables are patterned in pre-final and final word positions. Several possibilities are available relying very much on whether the syllables are internally light, heavy, or super-heavy. In disyllabic words of a final super-heavy syllable, that syllable receives the main stress and hence it becomes more metrically prominent than the first as in /miqˈdād/ "a proper name", /ɣirˈbīl/ "a sieve", /miqˈyās/ "measure" and /tʃafˈtʃīr/ "a scoop" whose metrical trees are illustrated with a dominate right node because of stress falling on the last syllable:

(4)
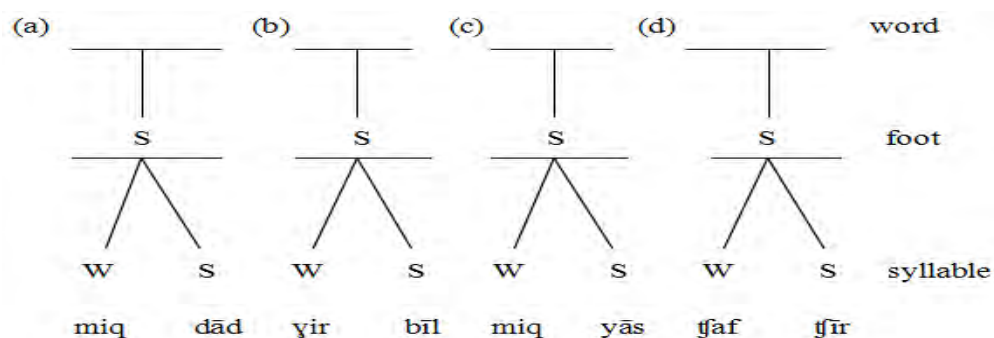
Contrasting with (4), some other Iraqi disyllabic words whose syllables are of initially heavy structures may sometimes change tack of stress placement in a way that the primary stress is allocated on the first syllables instead of the final ones. As such, metrical trees would have a dominate left node as in /ˈsitra/ "a jacket", /ˈxirda/ " coins", /ˈṣāfi/ "pure" and /ˈrāʃi/ "sesame paste" of (5):

(5)
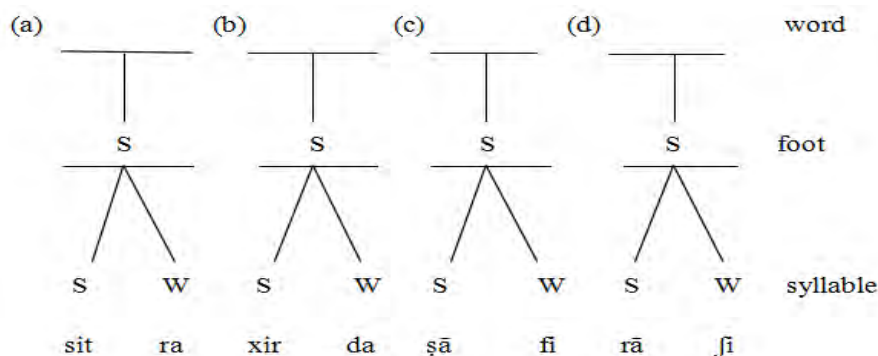
In all of the foregoing metrical representations, Iraqi disyllabic words of both types have only a single rhythmical foot whether a strongly prominent syllable is of a right-hand node or a left-hand node.

In a different vein, Iraqi tri-syllabic words contravene the unbounded stress system and make a notable exception to the general rule of word stress patterns. The primary stress is placed at an invariable distance from the peripheral of a word. It is usually segregated from the right or the left word boundary. Such words as /saˈhaba/ "he pulled him", /biˈlaʔa/ "he swallowed it", /ʔaṣˈṣabit/ "I become angry" and /baˈrikit/ "I congratulated (somebody)" are all stressed medially, i. e. on the penultimate syllable regardless of its internal structure as seen in (6):

(6)
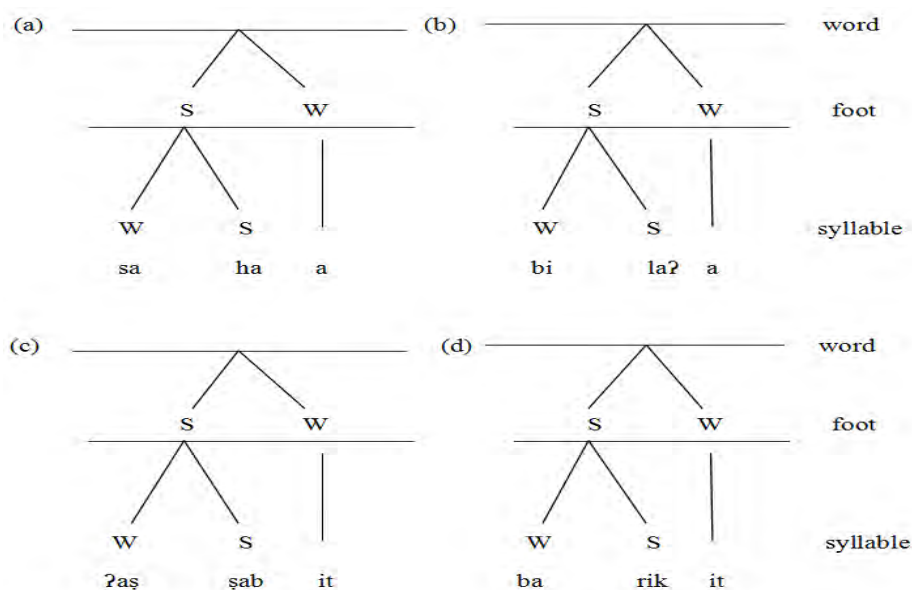
The above-mentioned discussion of both a bounded parameter of Iraqi word stress patterns and the one of right-left dominant spark off the binary aspect of stress which is usually known as the "counting-by-two" stress rule (McCarthy, 1985; Hayes, 1995). It is chiefly dictated by a number of principled regularities which come into operation according to two criteria: the type of direction of the word edge, i.e. the right hand (the end) or the left hand (the beginning), and the phonological nature of the templates of which word syllables are composed. In fact, the two criteria capture two types of differences in the realm of word stress placement: the first difference is an accurate mirror of the third parameter in which there is a possibility for constructing feet to be initiated either with the right edge or the left edge, while the second one lays down the fourth parameter which spotlights how the internal structure of the syllable has undue influence on foot structure. In connection with the constraints provided by the rule of counting by two and the differences given by stress placement within words,

Iraqi Arabic is subsumed under those dialects which are of quantity-sensitive feet because metrical trees are designed on the rhyme ground whereby both heavy and light syllable should be taken for granted. The binary aspect illustrates a rather veiling, complex stress system of different Iraqi Arabic lexical items. The rules governing such a counting-by-two aspect undergo the "option-open" strategy in which nothing relating to pattern Iraqi word stress is left or remains suspending.

The binary aspect of Iraqi stress entails the following rules: The primary stress falls on the last syllable on the condition that such a syllable is structured as super-heavy as shown in /dikaˈkīn/ "shops" and /taħaˈmīl/ "suppositories" of (7):

(7)
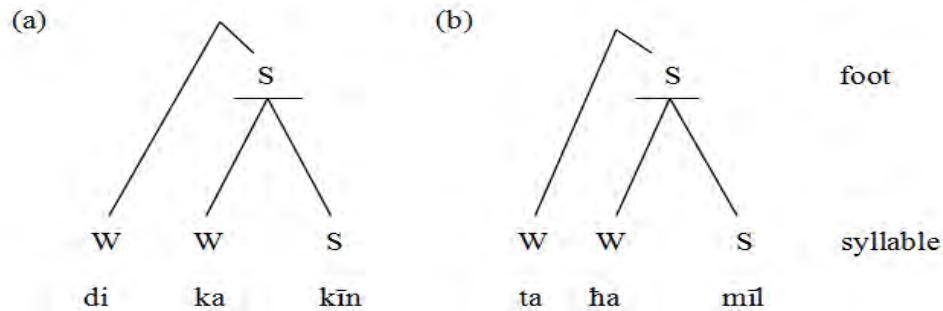
In (7), the first syllables /di/ and /ta/ of the above examples construct monosyllabic feet which are metrically given special treatment. They should be de-stressed, namely, they are elided, and then the syllables dominated by them are attached either to the preceding (left-dominate) or the following (right-dominate) feet (Hays, 1995). For this reason, the weak syllables /di-/ and /ta/ are attached to the right-dominate feet whose construction is composed of two syllables /kakīn/ and / ħamīl/ respectively.

When ended in a light syllable, a word does not have the main stress on that syllable but rather it receives it on the penultimate (pre-final) heavy syllable as seen in /qiˈbalti/ "you (fem.) agreed" and /ħaˈṭetti/ "you (fem.) inserted (something)" of (8):

(8)
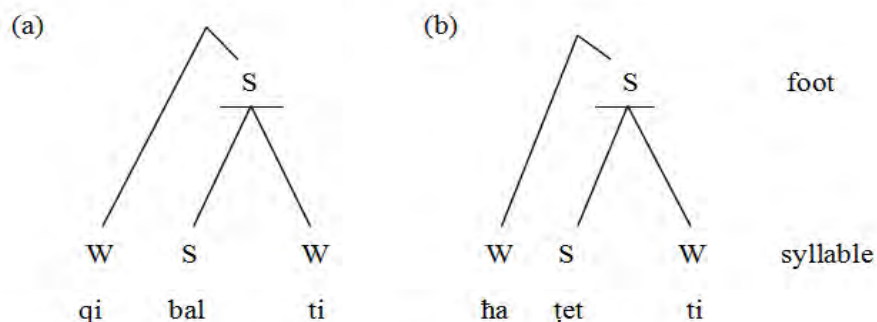
Metrical trees of (8) are not looked upon as a replica of those of (7) simply because the heavy syllables /bal/ of the word /qibalti/ and /ṭet/ of the word /ħaṭetti/ are not final but penultimate and this provokes considerable debate on whether these heavy syllables build up the left dominate foot side by side with the first weak syllables /qi/ and /ħa/ or the right-dominate foot accompanied with the last weak syllables /ti/. Practically speaking, there are two propitious compromises that are possibly made to relieve such a debate. In the first place, a particular sort of a foot must come into existence depending on the fact that the two words /qibalti/ and /ħaṭetti/ are affixed with the (-ti) feminine suffix which commonly chips away at the morphological shape of the word stems /qibal/ and /ħaṭet/ whose feet are right-dominate in origin. Here, these feet are depicted as strong ones on the basis that they are

branching because of having heavy syllables. In the second place, getting back to the basics of delineating foot boundaries within words manifests that the foot is the outcome of a stressed syllable (i. e. a strong one) with or without following unstressed syllables (i. e. weak ones) up to (but not including) the next stressed syllable. So, being stressed syllables followed by unstressed syllables, both /bal/ and /ṭet/ of /qiˈbalti/ and/ħaˈṭetti/ formulate feet with the construction of WS.

In other cases, a word may neither be patterned with a final super-heavy syllable nor with a pre-final heavy one, and this paves the way for light syllables to be in effective control in the overall Iraqi word stress. That is to say, the primary stress is allocated on the antepenultimate syllable in accordance with the stipulation that it must not be isolated by any syllables from the right side of the initial heavy syllable in a word. This can best be elucidated by such Iraqi words as /munˈfaʔila/ "she is agitated" and /munˈtafixa/ "it is blown up" of (9):

(9)
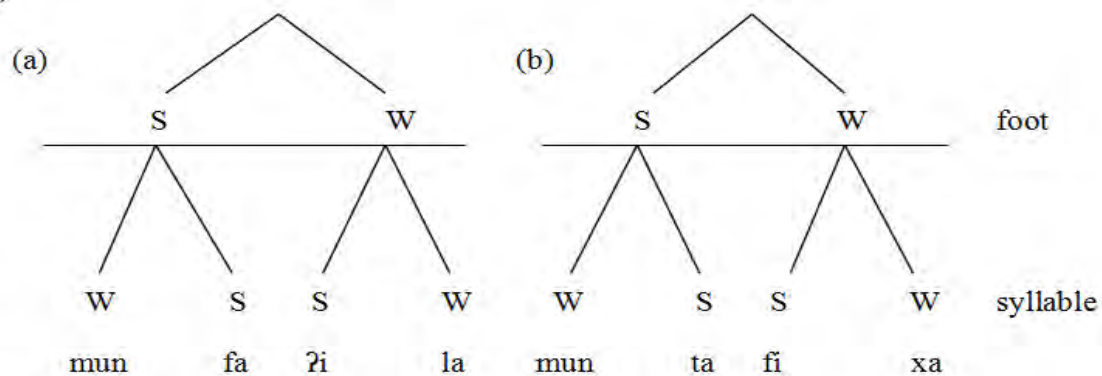
Apparently, examples in (9) do not exhibit the phenomenon of des-tressed mono-syllabic feet since both words are composed of four syllables setting up similar foot designs with SW.

Some Iraqi lexical items may be structured completely with zero heavy syllables, so the primary stress is placed on the light syllable after applying the counting-by-two rule from the beginning (left) of the word as in /ˈxawana/ "traitors" and /ˈsafala/ "bastards" of (10):

(10)
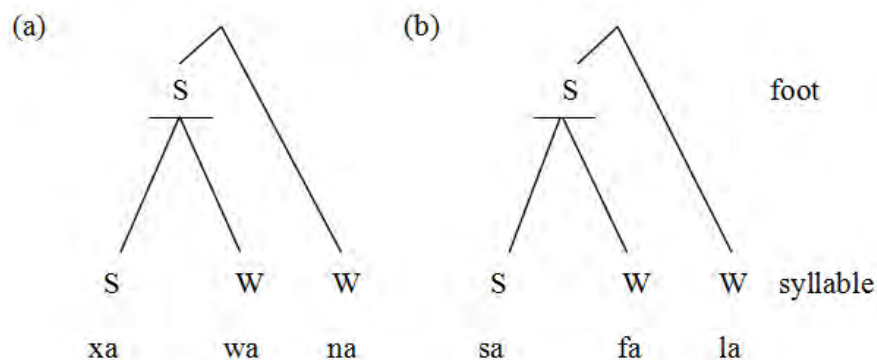
The metrical trees illustrated in (10) are mirror images of those shown in (7) where the right side of those of (7) appears on the left side of those of (10). Once again in (10), de-stressed monosyllabic feet emerge on the right edge of the words in a way that their weak syllables /na/ and /la/ are seemingly attached to the preceding feet whose structures comprise both strong and weak syllables: /xa/ and /wa/ of the first word, and /sa/ and /fa/ of the second word.

5. Extrametricality of Iraqi Words

Casting our eyes back to the foregoing section led to a very much crucial notion concerning some monosyllabic feet whose metrical status within trees is de-stressed. Such de-stressed feet gear up for a more satisfactory concept, namely, the concept of extrametricality (Hayes, 1982, 1983, 1984; Prince, 1983). At word fringes, extrametricality takes place when a syllable becomes "unseen" to the rules of designing metrical trees. For Iraqi Arabic, both tri-syllabic and polysyllabic words are usually subject to the phenomenon of extrametricality and their final syllables entirely play "subservient" roles in accepting a rule that marks them extrametrical. In other lexical contexts, it is not the final syllables but the final sound segments that are highly affected by extrametricality and seem to be "floating".
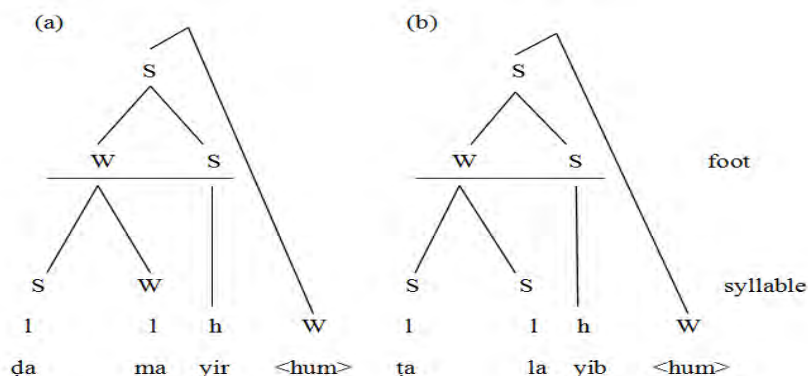
It is worth noting that the extrametrical aspect of Iraqi tri-syllabic and polysyllabic words comes into being if and only if other word syllables than the final ones receive the primary stress. This constraint points out that initial, antepenultimate or penultimate syllables must be metrically strong or more prominent, and in addition, it proposes that extrametrical final syllables are prior to the right fringe of foot construction. Being at the peripheral of a word, the right-side foot should be built up once not iteratively in Iraqi Arabic regardless of whether stressed syllables of such a foot are of a heavy or light structure.

In such Iraqi tri-syllabic words as /fuˈraʃti/ "you (fem.) covered (something)" and /saˈbūna/ "soap", the primary stress falls on the penultimate heavy syllables though their templates are divergent: the first is ended in a vowel and a consonant while the other is terminated with a long vowel. Furthermore, the last syllable would be "invisible" to metrical trees as illustrated in (11): (Note that the letter l is a light syllable, the letter h is a heavy syllable and the angled brackets enclose extrametrical syllables)

(11)
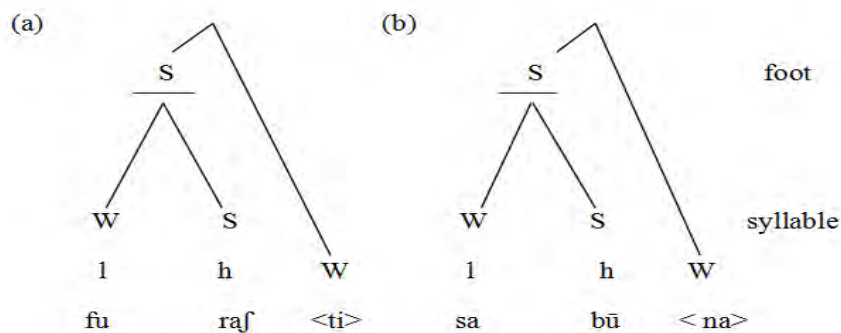
Iraqi polysyllabic words vary considerably in terms of which syllable may receive the main stress for two reasons. In the former case, most, if not all, of polysyllabic words are syntactically constructed as being one-word sentences with different word genders and word numbers. The other reason is that these long words have a unique linguistic structure within which some prepositions, i. e. /il/ "to" and /ʔal/ "with", maybe "contained" and make integral elements originated in their lexical skeleton as in /ʕaxaðit-il-hum/ "I took something on behalf of them" or /Suda-ʔal-yā/ "Alas". Polysyllabic words like /ḍamaˈyirhum/ "their own consciousness" and /ṭalaˈyibhum/ "their troubles" have four syllables and the main stress is located on the penultimate syllables: /yir/ of the first word and /yib/ of the second one. The final syllables are floating and thus they comply with the rules of extrametricality as shown in (12):

(a)

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              S                              S
           /     \                        /     \
          /       \                      /       \
     W        S                     W        S
    /  \      |      \             /  \      |      \
   S    W     |       W           S    S     |       W     foot
   |    |     |       |           |    |     |       |
   l    l     h       W           l    l     h       W     syllable
   ḍa   ma   yir   <hum>          ṭa   la   yib   <hum>
```

(a)   (b)

As hinted above, extrameticality can possibly be introduced as being a bilateral-faceted phenomenon whose major impact does not only cover the final syllable of a word, but it also includes a final consonantal segment. In Iraqi Arabic, the final consonant sound /t/ in such words as /ˈtsawagit/ "I went shopping" and /ṣaloˈnāt/ "saloons" is extrametrical and hence becomes floating in terms of the metrical tress of (13): (Note that extrametrical consonants are enclosed between two brackets)

(13)

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(a)                              (b)
          S                              S
        / | \                          / | \
       /  |  \                        /  |  \      foot
      S   |   \                      /   S   \
     /|   |    \                    /  /   \  \
    S  W  W                        W  W    S       syllable
    |  |  |                        |  |    |
   tsa wa gi(t)                    ṣa lo  nā(t)
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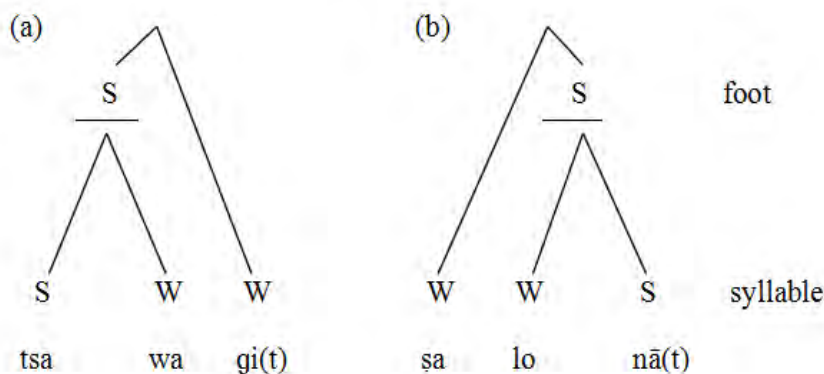
The metrical diagrams of (13) illustrate that extrametricality of the final consonants generally creates a "fait accompli" on the overall of word syllabic templates whereby the final syllable /git/ of the word /tsawagit/ is notably changed from a heavy syllable into a light one. This syllable weight-based shift highlights that all of the word syllables become light and the primary stress falls on the antepenultimate (initial) syllable. On the other hand, though being extrametrical and realized invisibly, the /t/ consonant of the word /ṣalonāt/ does not tack on something to the final syllable /nāt/ because the latter, with or without /t/, remains heavy and receives the main stress.

6. The Morphological Dimension of Iraqi Metrical Rules

In the previous section, both Iraqi tri-syllabic and polysyllabic words were explicated as being complex words to which suffixes are attached and of whatever grammatical classes may be. In addition, the most salient landmark that distinguishes those words is that their last syllables are tacitly suffixes of a masculine/feminine-based dichotomy. This is, in part, attributed to the grammatical category of "person" which is usually marked in verbs by virtue of certain personal pronouns whose distinctions are clearly made in Iraqi Arabic.

In Iraqi Arabic, word stress placement is, to some extent, stipulated by the type of morphological operation to which words are affixed. Stress patterns of complex words are not necessarily analogous to those of simple or underived words. In some cases, when attached to word stems, suffixes alter

stress allocations in such a way that the primary stress would fall on those suffixes. However, in other cases, whether being suffixed or not, syllables of certain words maintain their own stress locations.

Consistent with the philosophy of the theory of Lexical Phonology in dealing with the lexicon, metrical rules generally expose the morphological operation of word suffix attachments with the aid of two lexical concepts: a cycle block and a non-cycle block (Halle, 1990; Halle & Kenstowicz, 1991). While the latter necessitates that the Stress Erasure Convention (Halle et al, 1991; Orgun, 2002) tends to be relegated to metrical word representations of previously assigned rules and this means that they are still active and available after attaching suffixes, the former confirms that previously rule-assigned metrical structures of lexical items have to be eliminated by the Stress Erasure Convention after adopting each suffix attachment and thus the rules of stress patterns must be re-applied once again.

In Iraqi Arabic, words of particular syllable structures (i. e. tri-syllabic and polysyllabic ones) bring both blocks in effect. Apparently, three-syllable words whose last syllable is a suffix are highly affected by the non-cycle block in that stress placement usually remains as it is whether the suffix is attached or not as in /xiˡṣam/ (stem) and/xiˡṣam-ta/ (complex) "she finished it", and /siˡħab/ (stem) and/siˡħab-a/ (complex) "he pulled it". In a case like this, stress is located on the heavy penultimate syllable. This phenomenon is lucidly shown in (14): (Note that l is a light syllable, while h is a heavy syllable)

(14) Non-cycle block

Word stem	xi	ṣam		si	ħab	
	l	h		l	h	
Complex word	xi	ṣam	\<ta\>	si	ħab	\<a\>
	l	h	l	l	h	l
			(Extrametrical)		(Extrametrical)	

Conversely, Iraqi polysyllabic words are usually governed by the rules of the cycle block to the extent that stress shifts are notably the most distinguishable property of their syllable structures. Stress falls on any syllable of the word stem (often on the final one), but whenever attached to such a word stem, the suffix would receive the primary stress instead. What makes Iraqi multi-syllabic words more outstanding is that they are mostly suffixed derivationally and inflectionally and when actively applicable, the cycle block imposes constraints on stress placement to be placed on inflectional suffixes rather than on derivational ones. Such words as /wadˡdēt/ (stem) and /waddēt-il-hiy-ˡyā/ (complex) "I had sent it to him" and /ḍamˡmēt/ (stem) and /ḍammēt-il-hiy-ˡyā/ (complex) "I had kept it for him" are good examples of the above-mentioned phenomenon as seen in (15): (Note that the letters sh refer to a super-heavy syllable)

(15) Cycle block

Word stem	wad	dēt			
	h	sh			
Complex word	wad	dēt	il	hiy	\<yā\>
	h	sh	h	h	h
					Extrametrical
Word stem	ḍam	mēt			
	h	sh			
Complex word	ḍam	mēt	il	hiy	\<yā\>
	h	sh	h	h	h

Extrametrical

Finally, it is of great significance to throw some light on how the foot plays a large part in the structural description of some Iraqi word stems whose final two-consonant clusters are often separated by anaptyctic vowels. Strikingly, the cast-iron rule of vowel insertion, when activated, determines the nature of the second consonant to be one of the following sonorant consonants: /m, n, l, r, w, and y/. Thus, word stems like /ʔilm/ "a science", /firn/ "an oven", /buxl/ "miserliness", /xasr/ "waist", /ħaṣw/ "stones" and /ṭily/ "a lamb" show vowel anaptyxis in final consonant clusters so that their anaptyctic counterparts would be like the following: /ʔilim/, /firin/, /buxil/, /xasir/, /ħaṣuw/ and /ṭiliy/.

On a prosodic ground, Iraqi anaptyctic words imply two simultaneous criteria: the stem-final syllable must be made up of a rhyme branched into a nucleus filled with a short vowel (i. e. /i/ or /u/) and of a coda with a sonorant consonant. So, it has to be the head of a foot because it becomes heavy as a result of inserting a vowel as in (16): (Note that ω stands for a word, F for a foot and σ for a syllable)

(16)
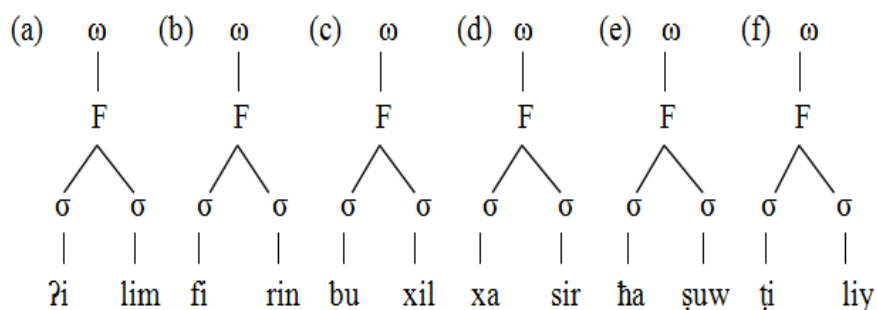
7. Results and Discussion

One result, par excellence is that Iraqi word stress patterns are the product of putting metrically prominence relations into effect within the hierarchal orbit of phonological units. Metrical feet of Iraqi words and their parametric prominence have to be construed as being "masterpiece" operations in which shadows are thrown on the phonology of Iraqi words from the angle of blending in thoroughly stress patterns with feet. This metrical state of affairs, by itself, produces an entire framework according to which metrical trees and grids set forth special standards commonly estimated via a set of principled regularities and applicable rules.

Next, Iraqi extrametrical syllables and sound segments have a highly influential role played in mapping, albeit crystallizing, the concept of floating constituents within words of different syllabic structures. Whether applied to a syllable or a segment, extrameticality makes phonological constituents behave as if they were "stealth" and metrical rules would be accordingly unable to assign them to foot constructions. Furthermore, it has been evinced that extrametrical syllables find an echo in de-stressed feet because both of them have a "suspended" status in terms of metrical trees of words

To round off this discussion, it is possible to sum it up reporting that the morphological operation of Iraqi complex words represented by suffix attachment is decisively incorporated into a kind of metrical rules known as extrametricality whose application considerably varies according to two different copies of lexical blocks. In turn, this provides strong motivation for granting the morphological dimension of Iraqi words special status in dealing with their metrical representations. It is clear that the morphology of Iraqi words, in a way or another, seizes control over their metrical phonology.

8. Conclusion

There can be no doubt that the metrical phonology of Iraqi Arabic words carries with it wider implications of how foot and prominence are, in most cases, shaded into each other whereby both of them contribute substantially to word stress patterns. Variable as they are, the metrical parameters of syllable prominence attribute foot constructions to bi-directional-based behavior at the word peripherals. Foot directionality is essential of right-left variable depending on which syllable, among other word syllables, is heavy or super-heavy, i. e. the one receiving the primary stress, and on where such a syllable is found, i. e. at the right or the left edge of a word.

Facing these facts leads to having a glance at the concept of extrametricality and its floating manifestation in the metrical representation of Iraqi words. Extrametricality is not a "chimera" since it is something idiosyncratic that makes some word syllables or some segments embellished with its peculiar application. It is, in fact, at the heart of the metrical scene of foot makes-up when it makes a notable exception to prevailingly metrical rules. It throws some light on a uniquely recalcitrant problem in MP because it triggers off "ghost" units to vanish from foot representations and thus it influences the way in which metrical rules apply.

Importantly enough, aided with particular principles of Lexical Phonology, MP provides a detailed analysis of the morphological operations that generally affect the entire word formations. It outlines a double-track procedure in which both lexical and metrical rules have remarkably interacted in the form of two blocks, i. e. cyclic and non-cyclic. However, their application is mainly a matter of priority: lexical rules or metrical rules.

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