

The Metrical Structure of the Words of Some Short Qur'anic Chapters

التركيب المتري لكلمات بعض قصار السور القرآنية

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Abstract

The present study attempts to analyse the words of some short Qur'anic Chapters metrically according to Hayes's (1995) parametric metrical theory. This theory assumes that word stress assignment in any language can be accomplished by setting the relevant parameters of that language. These parameters include quantity sensitivity, foot size, iterativity, direction of parsing, and foot dominance. The results of the study show that the frequent type of the Qur'anic words of the investigated eight short Qur'anic chapters are the disyllabic and the trisyllabic words. In addition, the analysis of Qur'anic word stress according to the parametric metrical theory is accomplished successfully by setting the relevant rules and parameters of the Qur'anic language.

Keywords: metrical theory, metrical parameters, extrametricality, Priority Clause Principle, syllable, foot, End Rule, unbounded stress

1-Introduction

Arabic is a language that belongs to the Semitic family of languages. This language is spoken by more than 250 million people in Western Asia and North Africa. More importantly, it is the religious language of about one billion Muslims around the world. The form of Arabic that is spoken by Arab people in everyday situations is called Arabic dialects which differ from one area to another, hence there are numerous dialects in the Arabic world such as the Iraqi Arabic dialect, Egyptian Arabic dialect, Palestinian Arabic dialect, etc. Speakers of all Arabic dialects share two formal Arabic varieties, namely Classical Arabic and Modern Standard Arabic. Classical Arabic (henceforth CA) is the language of the Holy Quran and the language of the pre-Islamic literature. Modern Standard Arabic (henceforth MSA) is a language that is used in education, by the media and in formal sessions. The difference between these two formal varieties is mostly lexical not syntactic.

Along its literature, parametric metrical stress theory has been used to investigate stress systems of different Arabic dialects such as MSA, Hity Iraqi Arabic, Cairene Egyptian Arabic, Palestinian Arabic, among others. However, this theory has never been used to investigate the stress of CA words whether Qur'anic or non- Qur'anic, so the present study attempts to answer the question of whether this theory can be applied to analyse stress in Qur'anic words. Therefore, the present study is based on

the hypothesis that stress assignment in Qur'anic words is best accounted for by using Hayes's (1995) parametric metrical theory.

2- Metrical Theory: Historical Background

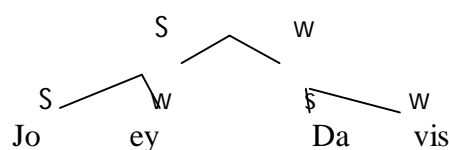
Metrical theory came into existence in the mid 1970s, suggested by Liberman's doctoral dissertation as a part of a theory of intonation, then it was developed by other linguists such as Liberman and Prince (1977), Halle and Vergnaud (1978), Selkirk (1980), Hayes (1980), Prince (1983), Halle and Vergnaud (1987), Hayes (1995), among others. Metrical theory is defined by Crystal (2003) as:

a theory of phonology in which phonological strings are represented in a hierarchical manner, using notions as segment, syllable, foot, and word. This theory was originally introduced as a hierarchical theory of stress, as it was developed to cover the whole domain of syllable structure and phonological boundaries. Stress patterns reflect relations of prominence between syntactic and morphological constituents. The underlying metrical structure of words and phrases are represented in the form of metrical tree whose nodes show the relative metrical strength between its constituents. Patterns of syllabic prominence can also be formally represented through the use of metrical grids. (p.292)

Metrical theory is primarily a theory of stress. It is considered as an improvement to the preceding studies that dealt with stress as a phonetic feature attached to individual segments (Al-Abdely, 2011, p.383)¹. Al-Abdely (2011, p.383) asserts that metrical theory organizes segments into groups of relative prominence defined as syllables which constitute metrical feet, then the feet in turn form words and words form larger units.

The organizing principle of metrical theory, as Liberman (1975, p.45) argues, has been a metrical system which consists of two complementary parts: a theory of metrical patterns (trees), and a theory of metrical grids. Liberman (1975, p.49) defines metrical patterns as trees with a hierarchical organization, with node labels: S (strong) and W (weak) explaining that the notions 'strong' and 'weak' in metrical trees are basically relational. A strong position is strong not because of inherent property of strength but by virtue of being associated with a corresponding weak position. A weak position is weak in relation to its corresponding strong position. In this way it is impossible to have metrical constituents such as [ww] or [ss]. In the tree below, both *Joey* and *Davis* possess [sw] structure which indicates that the first syllable of the two words is stronger than the second. These two words also function as part of a bigger structure in which *Joey* is stronger than *Davis*, hence this larger structure is represented by another [sw] relation.

¹ The researchers have followed the APA style in in-text documentation and in the bibliography.



Figure(1): The metrical tree of the phrase "Joey Davis" (Taken from Liberman (1975,p.49))

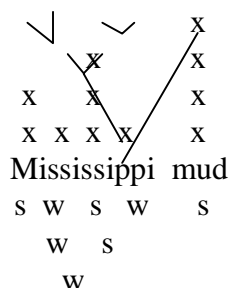
Inspired by musical rhythm, Liberman(1975,p.73) proposes the metrical grid model to express the alternating stress patterns between syllables defining the metrical grid as “a pattern which subdivides intervals of time, in the way that is familiar from musical notation”. According to Prince (1983, p.21), “the grid aspires to the state of music...” and this rhythmicity is necessary for grid construction. To elaborate more on the nature of the grid, it is necessary to identify its structure and the way it represents stress. Hayes and Puppel (1985, p.60) describe the metrical grid as “an abstract set of units arrayed in rows and columns. The height of the columns represents the stress prominence of syllables, while the rows may be viewed as series of rhythmic beats on different levels [layers]²”. The height of each column in the grid, McCarthy and Hayes (2003,p.55) assert, constitutes the stress layer of the syllable at its base; whereas, the phonological significance of the rows lies in their representation of sequences of rhythmic beats. In short, the vertical dimension of the grid represents prominence, while the horizontal dimension embodies rhythm (Kager, 1995, p.385). As far as the construction of the grid, Liberman and Prince(1977) propose a set of rules to project grids from metrical trees. These rules are quoted from Hayes and Puppel (1985, p.60) and stated below:

Grid Construction

- a- Give every syllable a grid mark as a place marker.
- b- Referring to the metrical tree ,add sufficient additional marks to the grid so that the strongest syllable of every strong constituent has a higher column than the strongest syllable of its weaker sister.

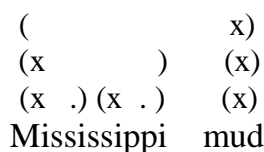
An example of projecting a metrical grid from a metrical tree is shown below in figure (2); the tree form of “Mississippi mud” can be projected into grid by adding a row of Xs as a place marker, then adding additional Xs corresponding to the tree Ss on the next row to represent the foot layer. The process continues till reaching the highest layer which occupies the last X, i.e. the most prominent constituent in the phrase –(mud) in this phrase.

² The word between the square brackets is of the present researchers.



**Figure (2): Projecting a Grid from the Tree of the Phrase
"Mississippi mud"(Taken from Hayes and Puppel (1985, p.60)**

To sum up, it has been shown that linguists either use both: metrical trees and metrical grids as models for representing stress, or they prefer one of them to the other. This preference of the grid to tree or vice versa is related to the absence of a feature in one model and its presence in the other. As a result, due to the importance of both groupings and rhythm in metrical analysis of stress, some linguists have devised ways of incorporating features of tree and grid in one representation like the bracketed grid model which is characterised by the inclusion of brackets in all layers. Hayes (1995, p.39) uses the bracketed grid model to represent stress. In this grid, every grid bracket holds only one grid mark which is the head of a constituent, while (.) is used to refer to unstressed syllables. Thus, Hayes's grid for "Mississippi mud" would be as follows:



**Figure (3): "Hayes's Grid of "Mississippi
mud" Taken from Hayes(1995, p. 39)**

3- Parametric Metrical Theory

Since the beginning of metrical theory, it has been based on the assumption that stress is the linguistic manifestation of rhythmic structure. Starting with Liberman (1975), he and all metrical phonologists who came after him tried to prove this assumption by adopting certain metrical rules and notations. Hayes, as one of the pioneers in this field, develops a different version of metrical theory which he presents in his doctoral dissertation in 1980 and then it is modified and developed in his 1995 theory published in his book Metrical Stress Theory. Hayes (1995) bases his parametric theory on the typology of rhythmically- based bounded stress rules. Although it shares a lot of features with the previous 1980 theory, it is more constrained and different in some other respects.

Hayes (1995,p.2) considers the foot as the smallest metrical constituent. He builds

his theory on three foot types : moraic trochee, syllabic trochee and iamb. He assumes that this number of foot type is sufficient to account for a large number of asymmetries in systems with bounded stress systems.

Graf (1999,p.26) points out that the minimal bracketed units in this theory are **feet** which represent the lowest metrical constituents grouped into higher layer constituents (words), which in turn, are grouped into higher units and so on. Moreover, in a parametric theory, the stress system of any language constitutes a particular choice from a limited set of parameters. Graf (1999, p. 27) emphasizes that once the relevant parameters are set, the stress rules can be derived. She adds that Hayes (1995) develops a theory which includes a large number of attested stress systems with a restricted set of parameters. These parameters are: size, quantity sensitivity, labelling(dominance), direction of parsing, and iterativity.

4- Metrical Parameters

Metrical theory assumes a hierarchical organization of segments grouped into syllables, syllables into metrical feet, feet into words and so on . In traditional studies of poetic meter, the foot was first recognized as a structure that groups stressed and unstressed syllables together (Davenport and Durham (1998); cited in Al-Abdely (2011, p.386)). According to Hayes(1995,p.2), the foot is the smallest metrical constituent; therefore, the parameters that Hayes establishes in his theory are all parameters related to metrical feet. These parameters are discussed below.

4.1. Size (Boundedness)

According to Hayes(1995), (Kager,1995, p. 370), metrical feet are maximally binary or unbounded. Boundedness refers to the distinction between stress systems in which stresses define a limited distance between each other and from the word edge, and stress systems that do not have such a restriction . The first system constructs feet of maximally two syllables only, while the second builds syllables of unrestricted size.

Hayes in his (1995) theory mainly deals with the bounded rhythmic stress systems, whereby the unbounded stress systems are less focused on. According to Hayes (1995), the unbounded systems are described as systems of “great interest because they appear to follow a universal pattern...”(p.33). This pattern is explicated by Prince's classification of the unbounded stress systems that distinguishes between default- to -opposite side systems, and default - to- same side systems. Accordingly, Prince (1985, p.474) identifies the universal stress pattern of the two types of unbounded systems as follows:

a) *Default – to- Opposite Side*

- i) Main stress is put on the final heavy syllable, if there is no heavy syllable, it is put on the initial syllable.
- ii) Main stress is put on the initial heavy syllable, if there is no heavy syllable, it is put on the final syllable.

b) *Default –to- Same Side*

- i) Main stress is put on the initial heavy syllable, if there is no heavy syllable, it is put on the initial syllable.
- ii) Main stress falls on the final heavy syllable, if there is no heavy syllable, it is put on the final syllable.

This classification is made according to two parameters: quantity sensitivity and the peripherality of stress rules, i.e. the fixed nature of stress is to occur at the word edge when the word lacks heavy syllables. Walker (2000, p.3) notes that the general property of stress patterns is to orient the main stress to a word edge. Walker explains that when the word edge is affected by sensitivity to syllable weight without the use of binary rhythmic structure, the resultant pattern would be called unbounded quantity sensitive stress. This system is called unbounded because there is no restriction on the distance between the main stress and the word edge (Walker, 2000, pp.3-4).

The main concern of the present study is the default –to- opposite side unbounded quantity sensitive stress system since the data used follows this type of stress systems, i.e. the Qur’anic language which is part of CA. To Hayes(1995), the way of building metrical structure for default –to-opposite side systems is different from that for default-to same side systems. Regarding the default- to- opposite type of unbounded systems, Hayes (1995) adopts the analysis suggested by Prince (1976). In Prince’s analysis, an unbounded quantity –sensitive foot template is proposed. This foot is either right or left headed with light syllables occupying weak positions(Hayes, 1995, p.298). Figure (4) depicts this type of foot with the rightmost heavy, otherwise leftmost (the symbol \cup refers to a light syllable and the symbol $_$ stands for a heavy one)

- Foot Construction Form left –headed ,quantity –sensitive unbounded feet
- Word layer Construction End Rule Right

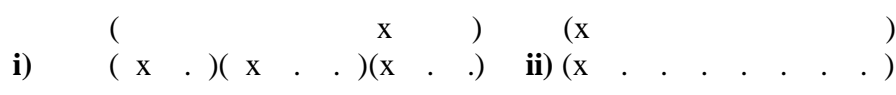


Figure (4) : " Metrical Analysis of Default –to Opposite (rightmost heavy, otherwise leftmost),"i" a word with heavy syllables , "ii" a word with only light syllables Taken from Hayes (1995,p.298)

The mirror image of the above foot is the “leftmost heavy, otherwise rightmost with right headed foot and End Rule Left” (Hayes, 1995, p.298).

4.2.Quantity Sensitivity

As far as stress assignment is concerned, languages are either quantity sensitive or insensitive. Quantity sensitivity is described by Kager (1995, pp.371-372) and Graf (1999,p.27) as the parameter that determines the way heavy and light syllables are distributed in terminal nodes of feet. So, when no restriction holds, and all syllables are treated as light or " equally heavy", the foot is quantity insensitive. In quantity sensitive feet, heavy syllables are stressed and may not be lodged in weak position .

4.3. Labelling (Dominance)

Under labelling parameter, Hayes(1995,p. 54) proposes that feet have either initial or final prominence. Graf (1999,p.28) remarks that this parameter determines the location of the head within the foot. Accordingly, left dominant feet show left –

stress, other heads are the word's secondary stresses.

5-Metrical Rules and Principles

In the process of foot construction, in addition to setting a list of language specific parameters, there are rules that should be followed so as to be secured from having ill –formed metrical structure . Relevant to this study are five rules illustrated below, the first two are related to the grid well-formedness, whereas, the remaining three are rules of stress assignment applied during foot construction.

5.1.The Continuous Column Constraint

The main idea of this rule is to have an inviolable constraint on metrical representation which guarantees that there is no gap in any column of the grid (Hayes, 1995, p.34). Following Prince's (1983, p.33) idea which says that “a column must have entries at every layer up to its peak”, Hayes (1995, p.34) formulated a rule which he calls the Continuous Column Constraint (henceforth CoCoCo). The CoCoCo reads as follows: “*A grid containing a column with a mark on layer $n+1$ and no mark on layer n is ill- formed . Phonological rules are blocked when they would create such a configuration*”(Hayes,1995, p.34).

5.2.Faithfulness Condition

Faithfulness condition is a rule that defines the relation between grid structure and bracketing structure. Hayes (1995) follows Hammond's (1984) and Halle and Vergnaud's (1984) postulation that there is a one- to- one correspondence between grid structures and bracketing structures; that is, every domain contains a single grid mark, and every grid mark is included within a single domain (p.41). This rule is termed as the Faithfulness Condition and is formulated as follows: “*Grid Marks must be in one-to –one correspondence with the domains that contain them*” (Hayes, 1995,p.41). Moreover, Hayes (1995, p.41) states that this condition is applied to all stages of derivation and it is capable of blocking the application of any rule that may lead to violating it.

5.3.Extrametricality

Extrametricality is considered as a fundamental concept in metrical phonology since its introduction by Liberman and Prince (1977, p.297) which they refer to by treating final syllables as "underlyingly non-syllabic" or extrametrical. Hayes (1995) defines extrametricality as a rule which “designates a particular prosodic constituent as invisible for purposes of rule application: the rules analyze the form as if the extrametrical entity were not there” (p.57). Furthermore, according to Hayes (1995, p. 58), there are two domains for extrametrical elements: segmental extrametricality i.e. consonants extrametricality, and higher level extrametricality in which syllables, feet, and words can be rendered extrametrical. The extrametrical element is usually put between angle brackets < >.

5.4.Priority Clause Principle

Hayes(1995) puts a restriction on the construction of degenerate feet. Degenerate feet are those “single light syllables in systems that respect syllable weight, and single

syllables in the quantity insensitive systems. These are the smallest logically possible feet in these systems” (Hayes, 1995, p.86).

These kinds of feet are severely avoided in Hayes's (1995) theory. Hayes (1995) proposes that languages put a strong ban on creating such kinds of feet, but the ban is relaxed only in case the degenerate foot is needed to avoid violating the CoCoCo (p.87). As a result, Hayes formulated a rule for prohibiting degenerate feet that includes strong and weak prohibitions. This rule according to Hayes (1995, p.87), is read as:

Foot parsing might produce degenerate feet under the following conditions:

- **Strong prohibition** *absolutely disallowed .*
- **Weak prohibition** *allowed only in strong position, i.e. when dominated by another grid mark .*

More interestingly , Hayes (1995) points out that the ban on degenerate feet predicts the possible word shape in a language. Considering that each word should have at least one foot, and since degenerate feet are avoided, thus there is no degenerate sized words. This minimal word requirement holds only for lexical categories since functional words do not need to be independently footed. Yet, languages which have minimal lexical words consisting of only one foot, apply a weak prohibition to degenerate feet (p. 88).

In the case of languages that put a strong prohibition on constructing degenerate feet, Hayes (1995, p.95) proposes the Priority Clause Principle to prevent this kind of feet appearing at the beginning and in the middle of parsing. Stray syllables at the end of parsing can be solved by extrametricality. Priority Clause Principle is phrased by Hayes (1995, p.95) as follows: “*If at any stage in foot parsing the portion of the string being scanned would yield a degenerate foot , the parse scans further along the string to construct a proper foot where possible*”.

5.5.End Rule

The End Rule or ER for short, is a rule that assigns prominence within the grid at word layer as well as at phrasal layer and sentence layer. It was first proposed by Prince(1983, p.25) who speculates that since little information is carried over from the tree to the grid, it is better to follow a direct route to the match –up by dealing with terminals only, i.e. instead of assigning prominence to every node, it is better to assign it only to terminals.

Prince (1983, p.27) states that this rule takes the burden of assigning stress to constituent structure in the grid. It also plays the role of connecting the prosodic layers in the grid (syllables , feet ,words , phrases). For the parametric metrical theory, Hayes (1995, p.61) adopts the ER reformulating it in the following simple steps:

- *Create a new metrical constituent of maximal size at the top of the existing structure .*
- *Place the grid mark forming the head of this constituent in the (left/right) available position.*

6- The Syllable Structure of CA

It is widely accepted that the syllable plays a very important role in the placement of stress in words. As defined by Crystal(2003, p.447), a syllable is “ a unit of pronunciation typically larger than a single sound and smaller than a word”. Therefore, in order to study Arabic word stress, it is important to be familiar with the types and the nature of syllables in Arabic.

According to Al-Ani(1983, p.133), Bishr(2000, p.510), Omar(2006, p.307) and Anees(2007, p.150-153), Arabic has five types of syllables and as follows:

- 1- Light syllable (cv)⁴ as in /kæ tæ bæ⁵/ “he wrote”.
- 2- Heavy closed syllable (cvc) as in /qol/ “say (imperative)”.
- 3- Heavy open syllable (cv:) as in /la:/ “no”.
- 4- Superheavy syllable (cv:c) as in /na:r/ “fire”.
- 5- Superheavy syllable (cvcc) as in /bæhr/ “sea” .

Al-Ani(1983, p.133) and Bishr(2000, p.510) added another superheavy syllable of the type (cv:cc) as in the words /mæ ha:mm/ “tasks” and /ra:dd/ “returned back”. Omar(2006,p.307) notices that the most common syllable types in Arabic (MSA and CA) are the light (cv) and the heavy (cvc) syllables, whereas the less common type is the superheavy syllable (cvcc) which occurs only at pauses. Al-Ani(1983,p.133) comments that the first four syllable types can occur word initially, medially or finally, with the last one only occurring at pauses.

Unlike all Arabic dialects, CA permits the superheavy syllable of the type cv:c to occur word initially, medially, and finally(Anees,2007,pp.154-155). In this respect, Bishr(2000, p.510) reveals that the fourth superheavy syllable, i.e. the cv:c type can occur word initially and medially when its coda consonant is followed by an identical consonant which begins the following syllable (this is called consonant gemination in Arabic) like the word /dʕa:l li:n/ “those who went astray”⁶ and /mud ha:m mæ ta:n/ “dark green(in colour)”.

7- CA Word Stress Rules

At word layer, stress is assigned to the most prominent syllable in a word. The present study adopts the stress rules of CA stated by McCarthy (1979, p.461). According to him, one of the properties of CA is that stress can retract an infinite number of syllables from the right boundary of a word, as opposed to some Arabic dialects in which stress can retract maximumally three or four syllables. Theoretically speaking, the foot in CA can be of an infinite size (when all syllables before the last are light). Below, are the CA stress rules adopted from McCarthy(1979,p.460):

- Stress a final superheavy syllable. e.g. /kæ ʔri:m/ “generous”
- Otherwise, stress the rightmost non-final heavy syllable. e.g. /sʔ ʔra: tʕæn/ “a way”
- Otherwise stress the first syllable. e.g. /ʔkæ bæ ru:/ “they grew old”

⁴ ‘c’ is a symbol of consonant, ‘v’ is a symbol of short vowel, and ‘v:’ symbolizes long vowels.

⁵ The researchers follow Roach(2000) for transcribing Arabic vowels and the IPA system for transcribing Arabic consonants.

⁶ The translation of the Qur’anic words is taken from Al-Hilali and Khan (1996) *Translation of the Meaning of the Noble Quran in the English Language*.

8- Metrical Parameters of CA

Metrical theory is based on a number of parameters according to which metrical foot is constructed. These parameters are language specific; and once they are set for any language, metrical rules can be derived, and the foot construction in that language becomes an easy task to do. According to the characteristics of CA, metrical parameters are set. These are illustrated below:

8.1.Size(Boundedness)

Metrical feet are either binary or unbounded. CA stress belongs to the unbounded stress systems and, accordingly, the foot constructed in CA is called unbounded foot (Hayes,1980,p.111). Ali and Abd.Ghani (2014,p.41) describe an unbounded foot as a foot that is built over two or more syllables or moras, one of which is strong and the other(s) is weak.

Hayes(1995,p.296), following McCarthy(1979), and Baković(2004,p.203) classify CA stress as belonging to the Default-to-Opposite side unbounded system; with the rightmost heavy syllable taking the primary stress, otherwise the leftmost syllable takes the stress.

Nevertheless, there is a third foot type which is called a degenerate foot, see section 5.4). Some languages allow constructing degenerate feet, others strongly prohibit them. CA, like all Arabic dialects, strongly prohibits constructing degenerate feet. The reason goes back to the fact that there is no degenerate size lexical word that consists of one single light syllable in CA to force foot parsing build a degenerate foot. Hence, when foot parsing algorithm detects a single light syllable that might form a degenerate foot, foot parsing scans further rightward to construct a foot over the next heavy syllable according to the Priority Clause Principle.

8.2.Quantity Sensitivity

According to McCarthy(1979), CA is sensitive to the weight distinction between heavy and light syllables. CA, like other Arabic dialects, is characterized by having two degrees of syllable heaviness: heavy and superheavy. McCarthy (1979); as cited in Hayes,1980, p.130) suggests that the canonical rime template in Arabic permits maximally two segments. As such, the final /c/ of the superheavy syllables is seen as later attached to the preceding segments. Consequently, McCarthy (1979, p.453) regards superheavy syllables as having two rimes: one ordinary and one degenerate, with the latter consisting of one consonant.

8.3. Dominance, Direction of Parsing, and Iterativity

CA foot is left dominant, i.e. the leftmost syllable represents the foot head. The direction of foot parsing is leftward (foot parsing begins from right to left) (McCarthy,1979,p.461; Hayes,1980,p.130).

Iterativity, on the other hand, indicates that foot construction is either iterative or non-iterative. CA foot building is non-iterative; however, Kager(1995,p.373) assumes that having non-iterative foot at one edge and an iterative foot at the opposite edge results in bidirectional systems. Hence, although CA foot is non-iterative when only one foot is constructed in a word with light syllables, it is iterative when the word has more than one heavy syllable. By the same token, Bacović(2004,p.203) refers to iterativity in unbounded systems stating that heavy syllables impose semi-iterative foot

construction in languages with quantity sensitive stress systems (such as CA).

8.4. Extrametricality and End Rule

As defined earlier, extrametricality rule renders a particular prosodic constituent as invisible in the process of metrical rule application (Hayes, 1995, p. 57). For CA, following Hayes (1980) and J. McCarthy (personal communication, March 20, 2016), all final consonants are extrametrical in the process of foot parsing, hence, final /cvc/ is structurally a light syllable /cv/ after applying consonant extrametricality, and final superheavy syllables /cv:c/ and /cvcc/ become /cv:/ and /cvc/ when their final consonants are rendered extrametrical.

Moreover, the present study assumes an optional syllable extrametricality in CA for words ending in the heavy syllable /cv:/ to avoid receiving stress by this syllable when the ER/right is applied. Syllable extrametricality, is adopted by Al-Abdely (2011) who utilizes it for Hity Iraqi Arabic words, and by Ali and Abd. Ghani (2014) who use it with MSA words. Finally, in CA, the ER /right version is applied to the word layer. To sum up, the preceding rules and parameters for CA words can be summarized in the following points:

- ❖ **Foot Construction:** form left-headed, quantity sensitive unbounded feet from left to right. Hayes (1995) shows the unbounded foot construction of a language like CA (see figure 4).
- ❖ **Syllable extrametricality** (optional).
- ❖ **Consonant extrametricality.**
- ❖ **Word layer construction :** End Rule/right.
- ❖ **Degenerate feet are strongly prohibited.**

9-Data Analysis

The present study attempts to analyse word stress of Qur'anic language according to Hayes's (1995) framework of metrical theory by using the bracketed grid model. As the Qur'anic language is part of CA, the parameters set for CA can work to build metrical feet on Qur'anic words. To accomplish this aim, the words of eight short Qur'anic Chapters are taken as data samples. These Qur'anic Chapters are the following: /ʔælfætɪhæh/ "*the opening*", /ʔæf ʃærħ/ "*the opening forth*", /ʔæl ʕæsʕr/ "*the time*", /ʔæl kəuθær/ "*a river in paradise*", /ʔæl fi:l/ "*the elephant*", /ʔæl ʔixla:sʕ/ "*the purity (of faith)*", /ʔæl fælæq/ "*the daybreak*", /ʔæn na:s/ "*the mankind*" Chapters. In the eight aforementioned Chapters, there are 117 words that can be assigned stress. These words are transcribed and syllabified according to the Qur'anic recitation of Al-Minshawi, a well-known Egyptian Qur'anic reciter. Then they are classified into four categories according to the number of their syllables; that is, monosyllabic, disyllabic, trisyllabic, and tetra syllabic words. The process of building metrical feet over these words is preceded by assigning them primary stress according to McCarthy's (1979) CA word stress mentioned in section 7. The table below shows the number and the percentage of each word category:

Table (1): the Number and Percentage of the Analysed Words

Word Category	No.	%
Monosyllabic words	9	7.69
Disyllabic words	56	47.86

Trisyllabic words	44	37.60
Tetra syllabic words	8	6.83
Total	117	99.98

As shown in the above table, there are only 9 monosyllabic words, constituting 7.69% out of the total number of words. These words have only two syllable patterns, i.e. heavy syllable like /ma:/ “*what(a relative pronoun)*” and /qul/ “*say(imperative)*”, and a superheavy syllable like /xusr/ “*loss*”. These words carry stress on the sole syllable they have. Metrical foot construction; however, differs according to whether the monosyllabic word has a heavy syllable or a superheavy syllable, as shown in the following examples:

(x) ER/right

(x)

ma:

(x) ER/right

(x)

qul

(x) ER/right

(x)

xus<r>

As with all words ending with a consonant, consonant extrametricality is applied to monosyllabic words of the superheavy syllable type like the word xus<r>, nevertheless, it cannot be applied to monosyllabic words with a heavy syllable type (cvc) since it will leave the word with a light syllable that can form a degenerate foot which is strongly forbidden in CA, as shown below:

(x) ← a degenerate foot

qu<l>

Disyllabic words are the frequent category in the analysed data. There are 56 disyllabic words with 47.86% of the total number of words. These disyllabic words take the following syllable patterns: (_ _), (_ _), (_ _), (_ _), (_ _⁷), (_ _) and (_ _). For each pattern, a Qur’anic word is analysed metrically. This Qur’anic word is taken as a representative for words with the same syllable pattern, the same position for stress assignment and follow the same metrical rules, see the examples below:

1- (_ _) (x) ER/right

(x .)

¹tæ ræ “*see*”

The word /tæ ræ/ is a disyllabic word with two light syllables. Stress placement rules put word stress on the initial light syllable resulting in the stress pattern: (¹ _ _). For this word, foot construction rules build one foot over the two light syllables.

2- (_ _) (x) ER/right

(x .)

¹ʔæ hæ<d> “*the One*”

⁷ The symbol _ stands for a superheavy syllable.

This is a disyllabic word that consists of one light and one heavy syllables. For words with this syllable pattern, stress goes to the initial light syllable causing the word to take the following stress pattern: (¹ _ _). To assign metrical feet to this word, the first step is making its final consonant extrametrical, then building a single foot over the remaining two light syllables.

3- (_ _) (x) ER/right
(x .)
ʃæɪ rɪ “evil”

/ʃæɪ rɪ / is a disyllabic word with a heavy- light syllable pattern. Word stress is normally carried by the heavy penult resulting in the following word's stress pattern: (¹ _ _). Metrical foot construction rules build one foot over the heavy penult and the subsequent light syllable.

4- (_ _) (x) ER/right
(x .)
ʃu:læ<d> “He is begotten”

In the word above, stress is attracted by the heavy penult which makes the word's stress pattern sounds as: (¹ _ _). Metrical foot construction rules render the final consonant extrametrical, then one foot is built over the heavy syllable and the following light syllable.

5- (_ _) (x) ER/right
(x)
ræ¹ hi:<m> “merciful”

/ræ hi:m/ is a disyllabic word that consists of one light and one superheavy syllables, therefore, primary stress is carried by the superheavy syllable according to the rules of CA word stress which makes the word's stress pattern read as: (_ ¹ _). According to the metrical foot construction rules, degenerate feet are strongly forbidden, thus the initial light syllable cannot form a degenerate foot. By the Priority Clause Principle, this syllable is left unfooted, and the parsing scans further to construct a foot over the next heavy syllable. As a result, the only foot that is constructed in this word is over the heavy syllable /hi:/ after making its final consonant extrametrical.

6- (_ _) (x) ER/right
(x) (x)
tæd^s ʌ li:<l> “go astray”

For the above word, stress is normally attracted by the superheavy syllable. Accordingly, the word's stress pattern is (_ ¹ _). Metrical foot construction rules make the final consonant extrametrical and build two feet over this word: the first foot is built over the final heavy syllable, and the second is constructed over the initial heavy syllable.

Both patterns numbers 2 and 4 are analysed differently if they end up with a heavy (cv:) syllable type. See the examples below:

(_) (x) ER/right
(x)
ʔɪ ˈðɑ: “if”

(_ _) (x) ER/right
(x)
ˈjʊs <ra:> “relief”

Moreover, there is a difference noticed in stress placement and in metrical rule application to the (light- heavy) pattern. This difference is attributed to the type of a heavy syllable the word ends up with. For example, both / ʔɪ ðɑ:/ and /ʔæ hæd / follow the (light-heavy) syllable pattern, still / ʔɪ ðɑ:/ is stressed finally, while /ʔæ hæd/ is stressed initially. Metrical foot construction rules also differ accordingly: for /ʔɪ ðɑ:/, the metrical foot is built over the final heavy syllable leaving the initial light syllable unfooted by the Priority Clause Principle, whereas in /ʔæ hæd/, consonant extrametricality makes the final heavy syllable a light one which paves the way to build a foot with initial prominence.

The last disyllabic syllable pattern, i.e. (_ _), which is represented by the only example word in the entire data (/dʰɑ:l li:n/ “those who went astray”) is analysed below:

(x) ER/right
(x)
¹ dʰɑ:l <li:n>⁸

The word /dʰɑ:l li:n/ which has a superheavy-superheavy syllable pattern is one of the rare words in the Holy Qur’an in which two superheavy syllables come together (Anees, 2007,154). It is usually assigned stress on its final syllable, but because of the Qur’anic environment that necessitates the vowel lengthening of the initial syllable; the last superheavy syllable is rendered extrametrical to avoid assigning it primary stress by ER/right.

Trisyllabic words are 44 in number constituting 37.60% of the total lexical words in the analyzed data. These words follow nine syllable patterns: (_ _ _), (_ _ _), (_ _ _), (_ _ _), (_ _ _), (_ _ _), (_ _ _), and (_ _ _). Below, are nine example words with each standing for one of the nine patterns analysed metrically according to Hayes’s (1995) parametric metrical theory.

1- (_ _ _) (x) ER/right
(x . .)
ˈfæ ʕæ læ “he did”

⁸ The Qur’anic words are syllabified according to the contexts of Qur’anic verses they are put in. For example the process of assimilation, syllable blending, long vowel shortening among others affect the pronunciation and hence the syllabification of adjacent Qur’anic words. This may result in changing the syllable type or syllable number of a word. In this study, the emphasis is on the syllable patterns, stress assignment and metrical rules application rather than discussing the syllabic change that results in the given words.

/fæ ʕæ læ / is composed of three light syllables which forces stress to retract to the initial syllable due to the absence of a pre-final heavy syllable. This gives the following stress pattern: (¹ _ _). For this word, one single foot can be constructed which is over the three light syllables of the word.

2- (_ _) (x) ER/right

(x . .)

¹kuʔu wæ<n> “co-equal or comparable”

The word above is a trisyllabic word with a light –light- heavy syllable pattern. According to CA word stress, the first light syllable attracts the word stress; hence the word takes the following stress pattern: (¹ _ _). Metrical rules render the final consonant extrametrical and build a single foot over the three light syllables with the leftmost syllable being the prominent one.

3- (_ _) (x) ER/right

(x .)

fæ ʔæy tæ “you have finished”

/fæ ʔæy tæ/, a trisyllabic word with a light-heavy-light syllable pattern. Word stress is attracted by the heavy penult which makes the word takes the stress pattern: (_ ¹ _). The foot construction process begins by building one foot over the heavy penult and the subsequent light syllables, then the initial light syllable is left over unfooted by the Priority Clause Principle.

4- (_ _) (x) ER/right

(x . .)

¹ʔæn qæ d^hæ “weighed down”

In a trisyllabic word with heavy-light-light syllable pattern such as the above word, stress is put on the heavy antepenult which results in the following stress pattern: (¹ _ _). Foot construction rules build one foot over the heavy syllable and the subsequent light syllables.

5- (_ _) (x) ER/right

(x .)

ʔɪ ʔla: hɪ<n> “God”

/ʔɪ la: hm/ is a trisyllabic word with a light – heavy- heavy syllable pattern. Stress is received by the heavy penult; hence, the word’s stress pattern is (_ ¹ _). Metrical foot construction rules render the word’s final syllable extrametrical and build one foot over the heavy penult and the following light syllable. The initial light syllable is left over unfooted by the Priority Clause Principle.

6- (_ _) (x) ER/right

(x . .)

¹keɪ dæ hʊ<m> “their plot”

This is a trisyllabic word with a heavy-light-heavy syllable pattern. The pre-final heavy syllable that attracts stress is the antepenultimate syllable. This gives the following stress pattern: (¹ _ _). The foot construction process works as follows: the final consonant of the word is rendered extrametrical, then one metrical foot is constructed over the initial heavy syllable and the subsequent light syllables.

7- (_ _) (x) ER/right

(x) (x .)

tær 'mi: hi<m> “striking them”

/tær mi: him/ consists of three heavy syllables. The pre-final heavy syllable that attracts stress is the penult /mi:/ which makes the word take the following stress pattern : (_ ¹ _ _). Metrical foot construction rules render the final consonant extrametrical, and build two feet for this word: the first foot is built over the heavy penult and the following light syllable; the second foot is built over the initial heavy syllable.

8- (_ _ _) (x) ER/right
(x .) (x)

næs tæ 'ʔi:<n> “we ask for help”

The word above is composed of three syllables with a heavy- light- superheavy syllable pattern. Primary stress is put on the final superheavy syllable, therefore this word has the following stress pattern: (_ _ ¹ _). According to metrical rules, the final consonant is rendered extrametrical, then with parsing from right to left, two feet are constructed: one foot is built over the final heavy syllable; a second is built over the initial heavy and the following light syllable.

9- (_ _ _) (x) ER/right
(x) (x)

ʔæ ba: 'bi:<l> “(birds) in flocks ”

/ʔæ ba: bi:l/ is a trisyllabic word with a light –heavy- superheavy syllable pattern. Primary stress is assigned to the final superheavy syllable, thus the word’s stress pattern is (_ _ ¹ _). Metrical rules render the final consonant extrametrical and build two feet over this word: the first foot is built over the final heavy syllable; the second is constructed over the heavy penult. The initial light syllable is left unfooted by the Priority Clause Principle.

Trisyllabic words also have two syllable patterns that end with a heavy syllable and analysed metrically according to the type of the final heavy syllable. The light-heavy-heavy syllable pattern is assigned primary stress on the penultimate syllable whether the final heavy syllable is an open syllable or a closed one. Yet, metrical foot construction rules differ for each case. For example, in a word like /ʔi 'la: him /, the final consonant should be made extrametrical to turn the final heavy syllable into a light one so as to prevent ER/right from assigning prominence to the last heavy syllable if footed. The second word with the same syllable pattern is / tæ 'wa: sʕu/. This word ends with an open heavy syllable which urges syllable extrametricality to be applied to avoid assigning prominence to the final syllable. In both words, the initial light syllables are skipped over by the Priority Clause Principle. The same process works on the heavy- light-heavy-syllable pattern except for the application of the Priority Clause Principle as there is no initial light syllable in this pattern.

Finally, there are only 8 tetra syllabic words constituting 6.83% of the total data. Interestingly, there are seven syllable patterns of this type which means that only one pattern is repeated. These patterns are as follows: (_ _ _ _), (_ _ _), (_ _ _), (_ _ _), (_ _ _ _), (_ _ _ _), and (_ _ _ _). The following tetra syllabic Qur’anic words are analysed metrically:

1- (_ _ _ _) (x) ER/right

(x . . .)

¹dʒæ ʕæ læ hu<m> “made them”

/dʒæ ʕæ læ hu<m>/ is a tetra syllabic word with a (light- light-light-heavy) syllable pattern. In such words, stress retracts to the initial light syllable when there is no non-final heavy syllable to anchor to. Therefore, the word’s stress pattern is (¹ _ _ _). Metrical foot construction rules make the final consonant extrametrical and build one foot over the four light syllables.

2- (_ _ _) (x) ER/right

(x . . .)

¹ʃa: nɪ ʔæ kæ “he who hates you”

This word is composed of four syllables (heavy-light-light-light). Since the only pre-final heavy syllable is the initial syllable, therefore it is the one that carries primary stress. Thus, the word’s stress pattern is (¹ _ _ _). Metrical stress rules assign one foot to this word which is constructed over the heavy syllable and extends to the last light syllable.

3- (_ _ _) (x) ER/right

(x . . .)

jʊ ¹wæs wɪ sʊ “he whispers”

/jʊ wæs wɪ sʊ/ consists of four syllables with a light- heavy- light- light syllable pattern. On this word, stress goes to the heavy antepenult which makes the word’s stress pattern realised as (_ ¹ _ _). Metrical rules build one foot over the heavy antepenult and the subsequent light syllables leaving the initial light syllable unfooted by the Priority Clause Principle.

4- (_ _ _) (x) ER/right

(x . . .)

hɪ ¹dʒa: ræ tɪ<m>⁹ “a stone”

This is a tetra syllabic word with a light-heavy-light- heavy syllable pattern. In this word, stress is placed on the pre-final heavy syllable which is the heavy antepenult /dʒa:/. Accordingly, the word’s stress pattern is (_ ¹ _ _). The foot building process starts with applying consonant extrametricality to the word’s final consonant, then building one foot over the heavy antepenult and the subsequent light syllables. The first light syllable is left unfooted by the Priority Clause Principle.

5- (_ _ _) (x) ER/right

(x . .) (x . .)

s^ʕa: lɪ ¹ħa: tɪ “good deeds”

This is a tetra-syllabic word with a heavy-light-heavy-light syllable pattern. Stress is attracted by the pre-final heavy syllable which is the penult /ħa:/. The word’s stress pattern, accordingly, is (_ _ ¹ _). For metrical foot construction, two feet can be constructed for this word: the first is built over the heavy penult and the following light syllable; the second is built over the initial heavy syllable and the next light syllable.

⁹ This word is written as /hɪ dʒa: ræ tɪn/ in isolation, but pronounced and syllabified as /hɪ dʒa: ræ tɪm/ due to assimilating the final /n/ with the initial /m/ of the following word, i.e /mɪn/.

6- (_ _ _) (x) ER/right

(x) (x) (x .)

næf fa: θa: tɪ “those who practice witchcraft”

/næf fa: θa: tɪ /is a tetra syllabic word with a heavy-heavy-heavy- light syllable pattern. The pre-final heavy syllable that receives the primary stress is the penult /θa:/, hence the word's stress pattern is: (_ _ ¹ _). Metrical rules build three feet over this word: one foot is built over the penult and the following light syllable, the second foot is built over the heavy antepenult; the third foot is built over the initial heavy syllable.

7- (_ _ _) (x) ER/right

(x) (x) (x .)

ʔæʕ tʕei ʰna:kæ<l>¹⁰ “we have granted you”

For this word, primary stress is received by the heavy penult giving the word the following stress pattern: (_ _ ¹ _). Metrical foot parsing starts by making the final consonant extrametrical. Parsing leftward, three feet are constructed: the first foot consists of the heavy penult and the following light syllables, the second is built over the heavy antepenult; the third foot is built over the initial heavy syllable.

One final point to mention is that tetra syllabic words do not exhibit a distinction between words ending with heavy close and heavy open syllables like in the case of disyllabic and trisyllabic words.

10-Conclusion

The present study investigated the syllable patterns of one hundred and seventeen Qur’anic words. After setting the relevant parameters for CA, word stress was assigned; and metrical feet were built over each syllable pattern by the use of bracketed grids to monosyllabic, disyllabic, trisyllabic and tetra syllabic words. Out of the four word types, monosyllabic and tetra syllabic words are the less frequent types scoring 7.69% and 6.83% of the total number of words. This indicates that disyllabic and trisyllabic words are the frequent Qur’anic words in the analysed data.

It is noticed that the influential factor that affects the placement of stress and hence the application of metrical foot construction rules is the type of syllables a word is composed of as seen in the disyllabic words and trisyllabic words with the same syllable pattern but different syllable type.

In addition, the analysis of word stress of the eight Qur’anic Chapters showed that assigning stress and building metrical feet over the Qur’anic words was successfully accomplished by setting the parameters of CA word stress system with the aid of some metrical rules like ER/right, the Priority Clause Principle, and extrametricality. Accordingly, the present study’s hypothesis which states that the Qur’anic word stress can be best accounted for by the use of this theory is verified and thus

¹⁰ This word is written in isolation without the final /l/, but the process of syllable blending blends the /l/ of the following word, i.e /ʔæʕ tʕei ʰna:kæ/ (after eliding the glottal stop and the following short vowel) with the word /ʔæʕ tʕei na:kæ/ to become /ʔæʕ tʕei na:kæʕl/.

accepted. Moreover, this study reinforces the validity of Hayes's (1995) parametric metrical theory as a universal theory of stress.

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Appendix

The following Qur'anic words¹¹ represent the corpus of the present study:

No.	The Qur'anic Word	Its Meaning	No.	The Qur'anic Word	Its Meaning
1	ʔæ ʃu: ðʊ	<i>I seek refuge with (Allah)</i>	21	sʰɪ ra: tʰæl	<i>the path</i>
2	bɪl la: hɪ	<i>in Allah</i>	22	(sʰɪ ra: tʰæl) mʊs tæ qɪ:m	<i>the straight path</i>
3	ʃeɪ tʰa: nɪr	<i>Satan</i>	23	læ ði:næ	<i>those</i>
4	ræ dʒi:m	<i>the cursed</i>	24	ʔæn ʃæm tæ	<i>You(Allah) have bestowed Your Grace</i>
5	bɪs mɪl	<i>in the name</i>	25	yeɪ rɪl	<i>not...</i>
6	la: hɪr	<i>Allah</i>	26	mæy dʰu: bɪ	<i>those who earned Allah's Anger</i>
7	ræh ma: nɪr	<i>the Most Gracious</i>	27	dʰa:l li:n	<i>those who went astray</i>
8	ræ hi:m	<i>the Most Merciful</i>	28	ʔæ læm	<i>have We not</i>
9	ʔæl hæm dʊ	<i>praise and thanks</i>	29	næʃ ræh	<i>(We) opened</i>
10	lɪl la: hɪ	<i>to Allah</i>	30	sʰæd ræk	<i>your breast</i>
11	ræb bɪl	<i>the Lord</i>	31	wæ dʰæʃ na:	<i>(we)removed</i>
12	ʃa: læ mi:n	<i>mankind, jinn, and all that exists</i>	32	wɪz ræk	<i>your burden</i>
13	ʔær ræh ma: nɪr	<i>the Most Gracious</i>	33	ʔæl læ ði:	<i>which</i>
14	ma: lɪ kɪ	<i>The Owner and the ruling Judge</i>	34	ʔæn qæ dʰæ	<i>weighed down</i>
15	jəʊ mɪd	<i>the day</i>	35	dʰæh ræk	<i>your back</i>
16	(jəʊ mɪd)di:n	<i>the day of Resurrection</i>	36	ræ fæʃ na:	<i>We raised high</i>
17	ʔɪ ja: kæ	<i>You(Allah)</i>	37	ðɪk ræk	<i>your fame</i>
18	næʃ bʊ dʊ	<i>we worship</i>	38	ʔɪn næ	<i>verily</i>
19	næs tæ ʔi:n	<i>we ask for help</i>	39	ʃʊs rɪ	<i>hardship</i>
20	ʔɪh dɪ næsʰ	<i>guide us</i>	40	jʊs ra:	<i>relief</i>

No.	The Qur'anic Word	Its Meaning	No.	The Qur'anic Word	Its Meaning
42	fæ ræy tæ	<i>you have finished(your occupation)</i>	57	(ʔæ læm)tæ ræ	<i>have you(O Muhammad) not seen</i>
43	fæn sʰæb	<i>devote yourself to Allah's</i>	58	keɪ fæ	<i>how</i>

¹¹ The repeated words are counted only once.

		<i>worship</i>			
44	ræb bɪ kæ	<i>your Lord</i>	59	fæ ʃæ læ	<i>he did</i>
45	fær yæb	<i>turn all your intentions and hopes(to your Lord)</i>	60	ræb bʊ kæ	<i>Your Lord</i>
46	wæl ʃæsʳ	<i>by Al-Asr 'the Time'</i>	61	ʔæsʳ hæ: bɪl	<i>the owners</i>
47	ʔɪn næl	<i>verily</i>	62	fi:l	<i>the elephant</i>
48	ʔɪn sa: næ	<i>Man</i>	63	yædʒ ʃæl	<i>He Makes</i>
49	xʊsr	<i>loss</i>	64	keɪ dæ hʊm	<i>their plot</i>
50	ʔɪl læl	<i>except</i>	65	tædʳ li:l	<i>go astray</i>
51	ʔa: mæ nu:	<i>believed in Islamic Monotheism</i>	66	tʳeɪ ræn	<i>birds</i>
52	ʃæ mɪ lʊsʳ	<i>they did</i>	67	ʔæ ba: bi:l	<i>in flocks</i>
53	sʳa: lɪ hæ: tɪ	<i>good deeds</i>	68	tæɪ mi: hɪm	<i>striking them</i>
54	tæ wa: sʳəʊ	<i>recommend one another</i>	69	hɪ dʒa: ræ tɪm	<i>stones</i>
55	bɪl hæq qɪ	<i>to the truth</i>	70	sɪdʒ dʒi:l	<i>baked clay</i>
56	bɪsʳ sʳæbr	<i>to the patience</i>	71	dʒæ ʃæ læ hʊm	<i>He made them</i>

No.	The Qur'anic Word	Its Meaning	No.	The Qur'anic Word	Its Meaning
72	ʃæsʳ fɪm	<i>an empty field of stalks</i>	86	(læm)jæ lɪd	<i>He begets not</i>
73	mæʔ ku:l	<i>has been eaten up</i>	87	(læm)ju: læd	<i>He is not begotten</i>
74	ʔɪn na:	<i>verily, We</i>	88	jæ kʊl	<i>there is</i>
75	ʔæʃ tʳeɪ na: kæl	<i>We have granted you</i>	89	kʊ fʊ wæn	<i>co-equal or comparable</i>
76	sʳæl lɪ	<i>pray</i>	90	ræb bɪl	<i>the Lord</i>
77	wæn hæɪ	<i>and sacrifice</i>	91	fæ læq	<i>the daybreak</i>
78	ʃa: nɪ ʔæ kæ	<i>he who hates you</i>	92	ʃæɪ rɪ	<i>the evil</i>
79	ʔæb tæɪ	<i>is cut off from posterity and every good thing</i>	93	ma:	<i>What(relative pronoun)</i>
80	qʊl	<i>Say(O Muhammad)</i>	94	xæ læq	<i>He has created</i>
81	hʊ wæl	<i>He is</i>	95	yɑ: sɪ qɪn	<i>the darkening(night)</i>
82	la: hʊ	<i>Allah</i>	96	wæqæb	<i>The night as comes with its darkness</i>
83	ʔæ hæd	<i>The One</i>	97	ʃæɪ rɪn	<i>The evil</i>
84	ʔæl la: hʊsʳ	<i>Allah</i>	98	næf fa: θa: tɪ	<i>those who practice witchcraft</i>
85	sʳæ mæd	<i>the Self-Sufficient Master whom all creatures need</i>	99	ʃʊ qæd	<i>The knots</i>

No.	The Qur'anic Word	Its Meaning
100	ħa: sɪ dɪn	<i>envier</i>
101	(ʔɪ ða:)ħæ sæd	<i>(when)he envies</i>
102	ræb bɪn	<i>The Lord</i>
103	na:s	<i>Mankind</i>
104	mæ lɪ kɪn	<i>king</i>
105	ʔɪ la: hɪn	<i>the God</i>
106	wæs wa: sɪl	<i>the whisperer</i>
107	xæn na:s	<i>the whisperer who withdraws after whispering</i>
108	jʊ wæs wɪ sʊ	<i>he whispers</i>
109	sʊ du: rɪn	<i>breasts</i>
110	dʒɪn næ tɪ	<i>jinn</i>
111	sʰæ dæ qæl	<i>He has spoken the truth</i>
112	la: hʊl	<i>Allah</i>
113	ʕæðʕi:m	<i>Almighty(Allah)</i>
114	ʔærsælæ	<i>He sent</i>
115	ʔɪ ða:	<i>When(a relative pronoun)</i>
116	kəʊ θær	<i>Al-Kawthar ‘ a river in Paradise’</i>
117	ræb bɪ kæ	<i>your Lord</i>

الخلاصة:

يتناول هذا البحث دراسة نبر الكلمات القرآنية لبعض السور القصيرة وذلك بحسب نظرية النبر المترية (metrical stress theory) لهيز سنة ١٩٩٥. تقترض هذه النظرية أن عملية نبر كلمات اي لغة في العالم يمكن ان تتم بتوجيه المعايير والضوابط الخاصة بكل لغة. وهذه المعايير تشمل: معيار تأثر اللغة بثقل المقطع وحجم الوحدة المترية التي تسمى بالتفعيلة (foot) وتكرارية التفعيلة واتجاه بناء التفعيلة واتجاه رأس التفعيلة. وقد اظهرت النتائج ان الكلمات الثنائية والثلاثية المقطع هي الكلمات الاكثر شيوعا من ضمن كلمات السور القصيرة الثمان ، كما واطهرت الدراسة فاعلية نبر الكلمات القرآنية باستخدام النظرية المترية في اطار المعايير والقوانين الخاصة باللغة القرآنية