Republic of Iraq

Ministry of Higher Education and Scientific Research

University of Misan

College of Education

Department of English

A PHONOLOGICAL STUDY OF THE METRICAL STRUCTURE OF SOME IRAQI ARABIC NURSERY RHYMES

A Thesis Submitted to the Council of the College of Education/University of Misan in Partial Fulfillment of the Requirements for the Degree of Master of Arts in English Language and Linguistics

By:

Mariam Naeem Hassan

Supervised by:

Prof. Balqis I. G. Al.Rashid (PhD)

2020 A.D. **1441 A.H.**

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

﴿ شَهِدَ اللَّهُ أَنَّهُ لَا إِلَٰهَ إِلَّا هُوَ وَالْمَلَائِكَةُ وَأُولُو الْعِلْمِ قَائِمًا بِالْقِسْطِ ۚ لَا إِلَٰهَ إِلَّا هُوَ الْعَزِيزُ الْحَكِيمُ ﴾

سورة ال عمران: ١٨

﴿ There is no God but He: That is the witness of Allah, His angels and those endued with knowledge, standing firm on justice. There is no God but He, the Exalted in Power, the Wise﴾

Al-Imran:18

Ali, A. Y. (1989). *The Holy Qur'an Text Translation and Commentary*. Al-Murgab: That Es-Salasil Publishing.

Supervisor's Report

I certify that this thesis entitled as ***''A Phonological Study of the Metrical Structure of Some Iraqi Arabic Nursery Rhymes''*** has been prepared and written under my supervision at Misan University, College of Education, Department of English in partial fulfillment of the requirements for the degree of Master of Arts in English Language and Linguistics.

Signature:

Supervisor: Prof. Balqis I. G. Al.Rashid (Ph.D.)

Date:

In view of the available recommendation, I forward this thesis for debate by the Examining Committee.

Signature:

Name: Asst. Prof. Tahseen Ali Mhoder (Ph.D.)

Head of the Department of English,

College of Education,

Misan University

Date:

Examining Committee's Report

We certify that we have read this thesis which is entitled as ***"A Phonological Study of the Metrical Structure of Some Iraqi Arabic Nursery Rhymes"*** as an Examining Committee, and examined the student in its contents, and that in our opinions, it is adequate as a thesis for the degree of Master of Arts in English Language and Linguistics.

Signature: ***Signature:***

Name: ***Name:***

Date: ***Date:***

Chairman ***Member***

Signature: ***Signature:***

Name: ***Name:***

Date: ***Date:***

Member ***Member***

Approved by the council of the College of Education

Signature:

Name: Prof. Hashim Dakhil Hussein (Ph.D)

Dean of the College of Education, Misan University

Date:

Dedication

To whom is the credited owner to me for attaining higher studies.....my beloved father

To whom the Almighty- Glory be to Him- placed paradise under her feet, and revered her in His Holy book....Dear mother

Table of Contents

Acknowledgements

First and foremost, all praise and thanks are due to the most Merciful Allah for His blessing, care, and guidance He granted, inspired and provided me in every step until the last word in this work.

I would like to express my deepest gratitude and sincere appreciation to my supervisor Prof. Dr. Balqis I. G. Al-Rashid for her endless support, patience, valuable notes, and immense knowledge. Her guidance and instructions helped me to overcome all problems and difficulties that faced me along the period of writing. Words cannot express how proud and grateful I am to my supervisor.

I would like to express my gratitude to the staff members of the department of English, College of Education, University of Misan starting from the head of the department passing through the rest members each one according to his own position.

I would also like to pay my special regards to all the people whose assistance was a milestone during my study for the master degree. My special thanks go to my classmates for the encouragement and advice they have provided me during my post-graduate studies.

Most importantly, I would like to thank the supportive members, those who share with me the difficult moments, my family. My deep thanks are due to my parents whose love, guidance, and their prayers for me are the reason for my success.

Abstract

The present study attempts to analyze the metrical patterns of Iraqi Arabic (henceforth IA) nursery rhymes. The study specifically deals with assigning the word stress patterns according to Hayes's (1995) metrical theory. The core assumption of this theory is that ''stress is a hierarchy of rhythmic patterns in which one syllable scores relative prominence with relation to an adjacent one'' (Al.Abdely 2011, p.379). Provided that meter and rhythm are the main characteristics of nursery rhymes, the rhythmic meter patterns of IA words of eight nursery rhymes are investigated according to Hayes's (1995) metrical theory, the bracketed grid model.

In the light of Erwin's (2004) rules of stressing IA words, the words of eight IA nursery rhymes are stressed, then the metrical feet are built over words according to the rules and parameters of IA. Hayes (1995) affirms that establishing the metrical structure of words is language-specific. In other words, stressing the words and building metrical feet over words occur after applying the rules and parameters of a specific language. On the other hand, the rhythmic patterns (meter) of each poetic line are given Latin names depending on Wainwright's (2004) classification of metrical feet.

The present study is divided into six chapters. The first chapter presents the problem, objectives, the hypotheses, limits, procedure, and the significance of the study. The second chapter displays a general theoretical background about metrical theory, then presents a discussion of Hayes's (1995) metrical theory. Chapter three is concerned with the theoretical background about Arabic word stress in general and IA word

stress in particular. Then, it provides in detail a discussion about nursery rhymes.

Chapter four is the analytical chapter, it identifies the metrical structure of each word, the feet number, and the feet types within each line of the chosen eight IA nursery rhymes. Chapter five includes an explanation of the results. Chapter six provides the conclusions, recommendations, and suggestions for further research.

List of Abbreviations

Abbreviation	Equivalent
BA	Beat Addition
CA	Classical Arabic
CoCoCo	Continuous Column Constraint
Cont.	Continued
ER	End Rule
H95	Hayes's (1995)
HIA	Hity Iraqi Arabic
IA	Iraqi Arabic
MSA	Modern Standard Arabic
MST	Metrical Stress Theory
SPE	Sound Pattern of English
WSP	Word Stress Pattern

List of Figures

List of IA symbols and Other Symbols Used in the Study

1. The Consonantal System of IA (After Wallace (2004,p.87) adopted from Jasim and Sharhan (2013,p.6))

	LABIAL	INTERDENTAL	DENTAL	PALATAL	VELAR	UVULAR	PHARYNGEAL	GLOTTAL
STOPS								
Voiceless	*p* *ṭ*		*t* *ṭ*		*k*	*q*		*ʾ*
Voiced	*b* *ḅ*		*d*		*g*			
SPIRANTS								
Voiceless	*f* *f̣*	*θ*	*s* *ṣ*	*š*	*x*		*ḥ*	*h*
Voiced	*v*	*ð* *ḏ*	*z* *ẓ*	*ž*	*ġ*		*ʿ*	
AFFRICATES								
Voiceless				*č*				
Voiced				*j*				
NASALS	*m* *ṃ*		*n*					
LATERALS			*l* *ḷ*					
FLAP			*r*					
SEMIVOWELS	*w*			*y*				

2. The Pure Vowels of IA (After Wallace (2004, p.87) adopted from Jasim and Sharhan (2013, p.7))

Types of Vowel		**Front**	Central	**Back**
High	**Long**	*ii*		*uu*
	Short	*i*		*u*
Mid	**Long**	*ee*		*oo*
Low	**Short**			
	Long		*aa*	
	Short		*a*	

3.The Diphthongs System of IA (After Wallace, 2004, p.87, adopted from Jasim and Sharhan (2013, p.7))

Vowel Height	**With glide to *y***	**With glide to *w***
High vowels		*iw*
Mid vowels	*ooy*	*eew*
Low vowels	*aay* *ay*	*aaw* *aw*

4. Other Symbles Used in the Present Study

Symbol	Meaning
'	Primary Stress
.	Unstressed Syllable
˘	Light syllable
–	Heavy Syllable
=	Superheavy Syllable
– ˘	Trochaic pattern
˘ –	Iambic Pattern
– –	Spondaic Pattern
– ˘ ˘	Dactylic Pattern
˘ ˘ –	Anapestic Pattern
σ	Syllable
μ	Mora
< >	Extrametricality
C	Consonant
V	Short Vowel
VV	Long Vowel
X	A Grid Mark Symbol

List of Tables

Chapter One

Preliminaries

1.1 Introduction

Arabic language is a combination of considerable variants. It is worth noting that Arabic can be divided into three variants; Classical Arabic (henceforth CA) which is the language of the Holy Qur'an and religious speech, Modern Standard Arabic (henceforth MSA) which is the language of education and media, or more specifically the language of formal speech, and Arabic dialects that are spoken roughly somewhere else. Concerning the social class and geography, Arabic dialects reveal differences. Gulf Arabic, IA, Egyptian Arabic, Levantine Arabic, Maghrebi Arabic are examples of Arabic Dialects (Albuarabi,2018, p.1372).

From its furthest north-east, located between Tigris and Euphrates, Mesopotamia (the ancient Greek name) the Arabic country is contiguous to Turkey and Iran. Mesopotamian Arabic belongs to Arabic dialects and is a subgroup of Afro-Asiatic languages. It also contains sub-dialects such as southern dialects, Baghdadi, and Maslawi dialect among others. On the one hand, these dialects differ from each other, on the other hand, IA differs from CA and MSA (Lestaric,2006, p.4). For instance, from the phonological point of view, IA contains more consonants and some long vowels than MSA. IA consists of (39) phonemes; eight vowels and thirty-one consonants. Vowels are classified into three short vowels and five long ones, while consonants are divided into 12 voiceless and 19 voiced consonants. Open, closed, and double closed are the syllabic patterns in IA (Albuarabi,2018, p.1374).

On this geographical location (Mesopotamia), Arabs, Syriac, Kurds, Turkmen, etc., people who belong to common Islamic states, naturally exchange culture and language. This exchange has an impact on language at various levels such as phonetics, syntax, morphology, and lexicon. Nursery rhymes are an obvious example of this effect (Al.Shabi,1965, p.9, cited in Albuarabi,2018,p.1373). Iraqi children's rhymes are the data of the present study.

Nursery rhymes are described as a part of oral literature. Oral literature is an old human invention (Lestaric,2006, p.1). They are defined as "short songs and verses often read and sung to, or by, young children" (Macmillan, 2007, p.1024, cited in Kroupova, 2014, p.12). In general, most of the nurseries are without well-known authors. They differ in style, theme, subject, rhythm, and rhyme. Lullabies, finger-plays, riddles, songs, and ballads are types of children's rhymes. They may be designed for fun or for educational goals (Dufter,2011,p.241).

Children's literature has been the focus of academic research for 40 years. It is used in studies related to the history of children's literature, its relationships with culture and pedagogics. Still, children's rhymes have barely been studied, they provide motivating research studies. Due to their unique structure, nursery rhymes have a great impact on different studies. Various methodological approaches can be used in studying nursery rhymes, historical and multicultural approaches, a diachronic linguistic approach, and a neuro-linguistic approach. Pedagogically speaking, nursery rhymes can be used in teaching English because of their broad use in education and media. For instance, the listening skill can be developed by studying and repeating rhymes (Scheiding, 2016,p.v).

Mostly, rhythm and meter are the main characteristics of nurseries, though they are overlapping concepts. Rhythm refers to "the way the sound of a poem moves in a general sense either in part or through its whole length" (Wainwright,2004, p.58), while meter is a "set pattern which recurs line by line" (Wainwright,2004, p.193). Every meter is formed from a sequence of metrical feet. The present study tries to examine these concepts in terms of Hayes' (1995) metrical theory, and specifically the grid model.

Stress exists in many languages. These languages vary from the perspective of which syllable is stressed and which one is unstressed, so a stress system needs a unified theory that can set the basic principles and parameters which are common to all languages (Watson,2011,p.1). Metrical theory achieves this aim. It is developed in the late of the 17th century (Kager,1995,p.368). The main supposition is that "the word-stress patterns universally depend on the underlying organization of words into a hierarchal structure of metrical constituents…" (Huneety and Mashaqba, 2015, p.5). In metrical theory, stress is "a hierarchy of binary branching structures, one is termed strong-weak and the other is weak-strong" (Kager,1995,p.368, cited in Watson,2011, p.6). Stress is a scale of rhythmic units where syllables are analyzed to compose feet and feet to compose words. Foot, on the other hand, is a combination of stressed and unstressed syllables (wainwright,2004,p.188). According to this theory, the parameters are chosen depending on the differences in stress systems for each language (Kehoe,1998,p.2).

Hayes states that stress is "the linguistic manifestation of rhythmic structure" (1995,p.8, cited in Jameel,2016,p.3). Various studies are concerned with the metrical structure of the Iraqi dialect but no one tries to investigate the metrical structure of the IA nursery rhymes.

1.2 The Problem of the Study:

The current study tackles the following problem:

No previous phonological study attempts to investigate the applicability of metrical theory to IA nursery rhymes. Thus, there is a phonological gap that needs to be filled properly by such a study.

1.3 The Objectives of the Study:

The present study is devoted to achieve the following objectives:

1. Studying the phonological aspects of the stress patterns of eight IA nursery rhymes within the framework of metrical phonology.

2. Investigating the syllable patterns to see their complementary role in assigning stress.

3. Applying some metrical rules to show the metrical structure of eight IA nursery rhymes.

4. Proving that metrical theory can succeed in analyzing the rhythmic patterns of eight IA nursery rhymes as it succeeded in analyzing the metrical structure of a variety of Arabic dialects.

1.4 The Hypotheses of the Study:

The study hypothesizes that:

1. Metrical theory is applicable to studying the stress patterns of IA nursery rhymes.

2. Rhythm and meter are the main characteristics of nursery rhymes, so the rhythmic pattern of IA nursery rhymes is best shown in the metrical grid model.

3. The frequency of the rhymes words according to the number of their syllables increases as the syllables number decreases. So, there is an inverse relation between the two.

4. The most frequent type of feet that is characteristic of the eight IA nursery rhymes is the trochaic foot.

1.5 The Limits of the Study:

This study is concerned with only applying Hayes' (1995) metrical theory to the metrical structure of eight IA nursery rhymes.

1.6 The Procedure of the Study:

The procedure that is adopted in this study is as follows:

1. Presenting two theoretical chapters, the first one is concerned with metrical theory in all its aspects and assumptions and reviews previous studies related to the current study; the second one deals with a general overview about the IA word stress and IA nursery rhymes.

2. Eight IA nursery rhymes are analyzed according to Hayes' (1995) metrical theory, specifically the bracketed grid model. More details are discussed in chapter four.

3. Discussing the obtained results.

4. Drawing conclusions in the light of the results of the study.

1.7 The Significance of the Study:

The study is expected to be of value on two perspectives, theoretically and pedagogically. From the theoretical perspective, there is no previous study that examined the rhythmic patterns of IA nursery rhymes in terms of Hayes' metrical approach. From the pedagogical level, the study is

supposed to be of significance to researchers whether they are Arabs or foreigners who are generally interested in studying the metrical structure of the IA dialect and particularly the rhythmic patterns of IA nursery rhymes.

Chapter Two

Metrical Theory and Review of the Related Literature

2.1 Introduction

This chapter addresses the theoretical background of metrical theory, its different versions, parameters, and rules. It also presents a number of the previous studies which are related to the current one.

One of the most striking facts that one can observe about metrical theory is that in all its versions it attempts to investigate the relative prominence patterns of words. Each version is related to the previously established one, as such a new framework tries to eliminate the weak points and develop the strong ones.

2.2 Generative Phonology from Linear to Non-linear Approaches

In (1968), the Sound Pattern of English (henceforth, SPE) which is developed by Chomsky and Halle put the fundamental assumption of linear phonology. Al. Abdely (2011,p.381) elaborates that speech according to SPE is presumed as a "strict sequence of segments and boundaries". Chomsky and Halle (1968) modify the theory of distinctive features which is proposed by Jakopson, Fant and Hall (1951). Chomsky and Halle believe that the utterance and the underlying representation of utterance are formed from a matrix of distinctive features in which each column indicates an individual segment. These segments denote a bundle of unordered features. Then, utterances are made up of a list of ordered segments (MacCarthy,1982,p.64). However, the development of non-linearity and removing the linearity assumption started in the early years

of the 70s of the twentieth century in which the stress assignment depends on syllable instead of segments.

Non-linear approaches which are represented by autosegmental and metrical phonology contrast with SPE in that the latter analyzed speech sounds into consonants and vowels (sequence of phonemes) and ignored the other phonological properties of speech which are connected with an individual segment such as tone, rhythm, as well as stress (Al.Abdely (2011,p.381), while the basic statement of the former is that "phonological representations are composed of several parallels, independent tiers of segments: tones and phones" (Al.Bay, 2001, p.7, cited in Ali and Abd.Ghani, 2014,p.36).

2.3 Metrical Phonology

Hammond (1995, p.313) defines metrical phonology as "the branch of generative phonology concerned with stress phenomena in natural language". It differs from the past approaches in that it proposes a hierarchal form suggestive of the forms used in the classical analysis of poetic meter. Thus, it is called metrical phonology. Metrical phonology is defined by Pearl (2008) as "the system that determines which syllables in a word are stressed and how much stress each syllable receives compared to all the other syllables in the word" (p.112). Crystal (2008) in his dictionary of linguistics and phonetics describes metrical phonology as a "theory of phonology in which phonological strings are REPRESENTED in a HEIRARCHAL manner, using such notions as SEGMENT, SYLLABLE, FOOT and WARD" (p.304). Moreover, McCarthy and Hayes (2003, p.55) point out that metrical phonology is a sub-branch of generative theories which tries to

identify the characteristics of stress and stress rules. They also mention that metrical phonology goes through different versions but all versions share some properties which are listed below:

1.Typological properties: there are phonetic and phonological differences between stress and other phonological properties such as nasality and voicing. From the phonetic viewpoint, stress is an abstract feature that is represented physically by different mechanisms such as pitch and length, so stress differs among languages. Phonologically, McCarthy and Hayes (2003, p.55) state that stress is distinguished from other properties by the following phonological characteristics:

(a) Culminitivity: it indicates that each word or phrase contains an individual strongest syllable.

(b) The rhythmic distribution of stress: the syllables carrying identical levels of stress occur in equal spaces. For example, words with six syllables in some languages are represented by the following rhythmic distribution: X X' X X' X X', it can be said that no language has a pattern such as X X X X' X' X' .

(c) Hierarchical representation of stress: in stress-timed languages, stress exists in the degree of intermediate levels, primary, secondary, tertiary, unlike other features which are characterized by a limited predetermined number of comparable phonological values.

(d) Stress does not assimilate: stress cannot be tested like other features, i.e.[round] and [back] which can be tested through spreading .

2. Hierarchical Metrical Structure: metrical theory assumes that the phonetic and phonological distinction between stress and other features can be best represented if stress is represented by a hierarchal

organization of rhythmic structure. The metrical grid is the model for representing the rhythmic structure, as shown in the following example (MacCarthy,2003,p.56):

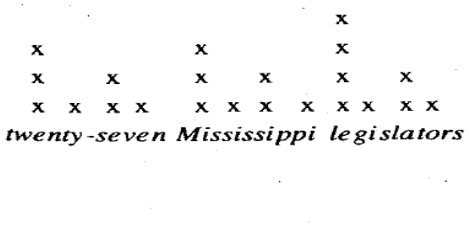


Figure (2.1): Stress Representation on the Metrical Grid

(Adopted from McCarthy, 2003,p.55)

Through metrical representation, the phonological properties mentioned in the previous section can be accurately stated. The example above illustrates how the metrical grid allows the typological properties of stress to be shown. The first property is shown through the highest column, the alternation or spacing between stressed and unstressed syllable also clear, the multiple levels of stress indicate the hierarchical distribution of the rhythmic pattern, and finally, the stressed syllable does not promote another stressed one that comes immediately before or after it.

3. Predictability of Stress: stress is confirmed by rules across languages. For example, stress is penultimate in the Polish language which is different from other languages. Stress rules are non-local, for example, English phrasal stress rules are the rightmost word stress in the syntactic phrase. Non-locality of phrasal stress rules can be described by metrical representations (MacCarthy,2003,p.56).

4. Grouping: the classical notion of rhythmic rules assigns more to rhythm than to the hierarchal structure of beats: rhythm has a set of

continuous beats into phrases. In metrical phonology, the consecutive syllables in a word are grouped into feet. A single prominence characterizes each foot (MacCarthy,2003,p.56).

Kehoe (1998, p.2) illustrates that languages differ in stress placement. Metrical phonology attempts to find a uniformity among stress systems by proposing some parameters. Different stress systems are obtained by selecting a special context for each parameter. The basic metrical theory parameters are described below:

1. Foot-headedness: Foot is the fundamental feature within a metrical framework which consists of the alteration of stressed and unstressed syllables. Iambic foot and trochaic foot are terms of foot types from traditional metrics: iambic indicates the stressed syllable is on the right and trochaic indicates the stressed syllable is on the left.

(a) Syllable Trochee	(b) Moraic Trochee	(c) Moraic Iamb
(X .)	(. X)	(. X)
(σ σ)	(μ μ)	(μ μ)

Figure (2.2): Foot Dominance Types (Adopted from Ali and Abd.Ghani, 2014, p.42)

2. Quantity-Sensitivity: Quantity-sensitivity denotes whether or not the assignment of stress is sensitive to a syllable internal structure. syllables are divided into light (CV) syllables and heavy (CVV) or (CVC) syllables. When stress allocates to a heavy syllable, the stress system of a language is quantity-sensitive. The stress system is quantity-insensitive when stress assignment is not concerned with the structure of a syllable, as shown below:

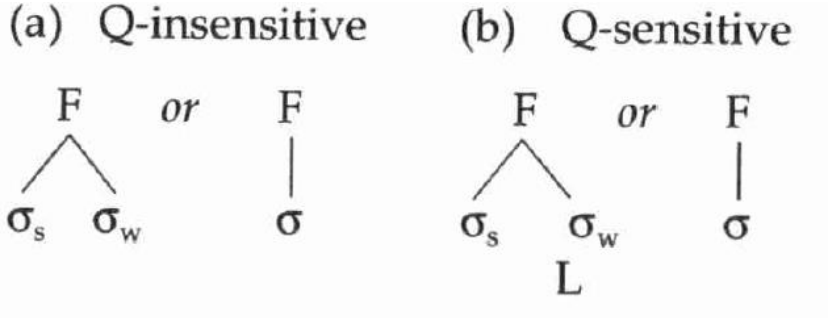


Figure (2.3): Quantity-Insensitive and Quantity-Sensitive System (Adopted from Kager, 1995, p. 372)

3. Directionality of stress parsing: Directionality is another constituent of stress systems. Feet may be formulated from right to left or from left to right.

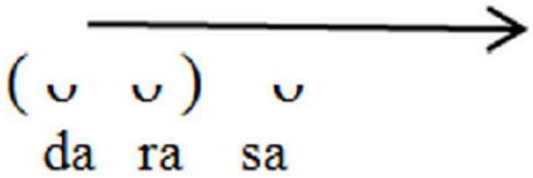


Figure (2.4): Foot Direction in the Arabic Word /darasa/'درس' (studied) (Adopted from Ali and Abd.Ghani, 2014, p.42)

4. Extrametricality: Extrametricality indicates a particular prosodic component that can be a segment or a syllable as invisible for the stress assignment purpose. Marking the last syllable of the word as extrametrical is the most common case. The example below illustrates the application of extrametricality to the final consonant:

(x)

su: <q>

Figure (2.5): The Application of Extrametricality to the Final Consonant of the Word /su:q/ 'سوق'(market) (Adopted from Ali and Abd.Ghani, 2014,p.45)

5. Main stress: Main stress denotes the increment prominence of stress-foot with regards to another stress-foot. The left-most or right-most syllable carries the main stress except for extrametrical syllables. Prince (1983), then Hayes (1995) propose End Rules Left/Right to assign word main stress (Kehoe, 1998, p.2), as shown below:

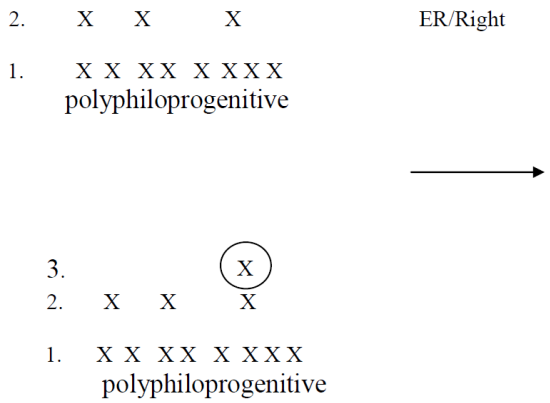


Figure (2.6): End Rules Application to the Word 'polyphiloprogenetive' (Adopted from Prince, 1983, p.26, cited in Jameel (2016, p. 42))

All in all, the present linguistic theory uses principles and parameters, a representational system of rules to explain different phonological aspects. According to Hayes (1985, 1995), metrical theory is used to illustrate stress patterns across languages (cited in Kehoe,1997, p.1).

2.3.1 Metrical Theory Versions

Metrical theory originated during the late of the 17th century as a sub-branch of nonlinear phonology in which autosegmental phonology is the main branch. It was proposed by Liberman (1975) and refined by Liberman and Prince (1977), Hayes (1981,1995) among others. Together, metrical theory and autosegmental phonology, attempt to develop an approach which differs from linear phonology. Word stress was the demonstrable field of metrical phonology, despite the fact that metrical theory was also used to investigate unstressed phenomena, for example, syllable structure and vowel harmony (cited in Kager, 1995,p.368). Liberman (as cited in Gills et al,1995,p.55) views stress as follows:

> *Stress is not a phonemic feature of individual vowel in a word(as earlier generative accounts, exemplified in Chomsky and Halle's sound patterns of English, would have it), but that stress is a relative property to be captured, in a hierarchal structure. Stress is conceptualized in terms of relative prominence of syllables. A node is strong not by virtue of some inherent property, but because its sister node (in a binary branching structure) is weak.*

Metrical theory goes through a number of versions. The beginning of metrical theory started with Liberman (1974) and Liberman and Prince (1977). Hayes (1980,p.6) states that the original work on metrical theory is that of Liberman and Prince (1977), which is an exhaustive establishment of Liberman ideas. Liberman and Prince (1977) develop a thorough version of stress representation. As it is mentioned earlier, stress was described as a characteristic of an individual vowel (Chomsky and Halle, 1968, p.19). In contrast, Liberman and prince (1977), (cited in Hayes, 1980, p.7) state that stress is to be organized as a substance of correlative prominence jointly with other syllables, rather than as a

property for each single vowel. According to metrical theory, stress is represented by pair branching (tree structures), each branch of sister nodes is categorized as S W or W S, according to the stronger node:

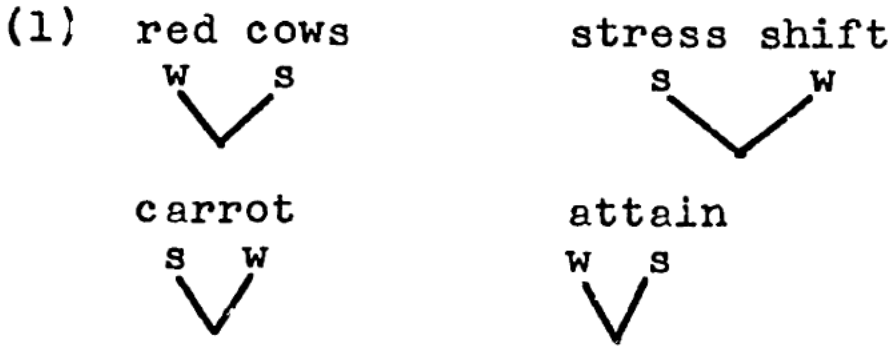


Figure (2.7): Liberman and Prince's Tree Structure (Adopted from Hayes,1980,p.7)

Liberman and prince (1977) develop a second model of representation: The metrical grid. They propose this in their study of the English rhythmic rules. They believe that rhythm rules can be applied when there is a stress clash in metrical representation. Goldsmith (1990,p.192) remarks that stress clash refers to "a situation in which adjacent vowels are stressed".

For example, the rules of rhythm are responsible for stress shift when a stressed word is followed by another close stressed one as shown in the following examples (Hammond,1995,p.326):

thìrtéen	thìrtéen mén → thírtèen mén
Mìnnesóta	Mìnnesóta Míke → Mínnesòta Míke
Tènnessée	Tènnessée áir → Ténnessèe áir
Mòntána	Mòntána cówbòy → *Móntàna cówbòy

Figure (2.8): Hammond's Examples on Stress Shift (Adopted from Hammand,1995,p.326)

Briefly, Liberman (1975) and Liberman and Prince (1977) apply their metrical framework to the English stress system. It can be concluded that their approach misses universality (Jameel,2016,p.14).

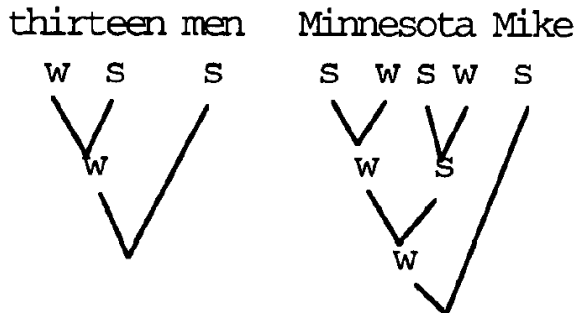


Figure (2.9):Liberman and Prince's Representation of Stress Clash

(Adopted from Hammond, 1995,p.324)

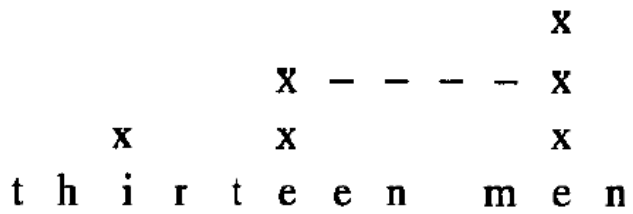


Figure (2.10): Liberman and Prince's Grid Representation

(Adopted from Hammond,1995,p.327)

Later on, Prince (1980) introduces the possibility of the theory of grid only. He maintains that stress can be assigned by putting words in rows. (Kager, 1995, p.369). In his article "Relating to the Grid", he (1980) cancels the need for the tree representation and identifies rules for stress assignment in the sense of a metrical grid framework. The representation which relies on the metrical grid achieves the goal of giving a complete description of word and phrase stress, refines rhythm rules, and develops universal components with various parametric aspects across languages. Although Prince's notion of the metrical grid has its own advantages, yet

it is not regarded as a complete theory for application. Therefore, it was developed later by Selkirk (1984) (Garf, 2001, p.28).

In the light of Prince's (1980) representation of the metrical grid, Selkirk (1984) develops a number of rules which account for universal principles. These rules are of three types:

1. Text-to-Grid Alignment rules: These rules present the first level of formulating the grid on the basis of the segmental patterns, up to the main stress (Graf,2001,p.28).

2.Grid Euphony rules: These rules verify that the derived structure resembles the "Platonic ideal" (Selkirk 1984,p.55) of the "Principle of Rhythmic Alternation", which is parallel to Prince's "Perfect Grid" (cited in Graf,2001,p.28)

3. Grid Transformation rules: These rules are applied to the forms derived from the application of the rules above (Graf, 2001,p.28).

From (1980) up to (1995), Hayes gives an essential body of principles by developing the previous versions of metrical theory. Hayes attempts to broaden the limits of metrical theory to cover a substantial number of typological properties across different systems while transporting the core of the theory to a specific number of parameters. Hayes's approach is called parametric stress theory. In the parametric approach, grammars are put apart into crucial principles. Grammars are composed of specific rules, identified in respect to parameters that are supported by universal grammar. Restricting the number of parameters limits the indicative power of the theory (Kager,1995,p.370).

Hayes (1995, henceforth H95) is a modified and expanded version of Hayes's (1987) which tries to present a description of universals and

particulars of language in the framework which depends on typological investigations across 150 languages (Tanaka,1997,p.394). The core of H95's metrical theory which is described as unique when compared to the previous metrical versions, can be summarized in the following points:

1. Regarding the universality of language, H95 modifies the idea that units bearing stress are not moras but are universally syllables. He affirms that "stress contrasts may not occur within heavy syllables, nor may syllables be split between feet" (p.401,cited in Tanaka,1997, p.395).

2. H95 believes in asymmetrical foot inventory. Davenport and Durham (1998,p.149, cited in Ali and Abd.Ghani,2014,p.42)) define foot as "an organizing structure for combining syllables, or more precisely for combining stressed and unstressed syllables". H95 delineates the asymmetric foot to a universal inventory that was proposed by the psychologists (Bolton 1894 and Woodrow 1909), according to which the recognized rhythmic set of elements is built on the differences between these elements such as duration and intensity. The string of elements that differ in duration can be identified as iambic, while the string of elements that differ in intensity can be identified as trochaic (Hayes,1995,p.33 cited in Tanaka,1997, p.395)). H95 distinguishes three kinds of feet:

a. Iamb: Languages which belong to this type have a right dominant foot and allow the following syllables: (LL), (LH), (H) and (L) (Ali and Abd.Ghani,2014,p.42)

b. Syllabic Trochee: In languages from this type, the foot in the final light syllable remains unparsed (Hulst and Ewen, 2001,p.225)

c. Moraic Trochee: Languages which are related to this type construct feet depending on the moraic structure rather than on the syllabic

structure in that foot can be built by a heavy syllable or by two light syllables (Hulst and Ewen, 2001,p.225).

Languages belong to syllabic trochee and moraic trochaic are called trochaic languages and are characterized by having a left dominant foot and allow the following syllables (H), (LL), and (L).

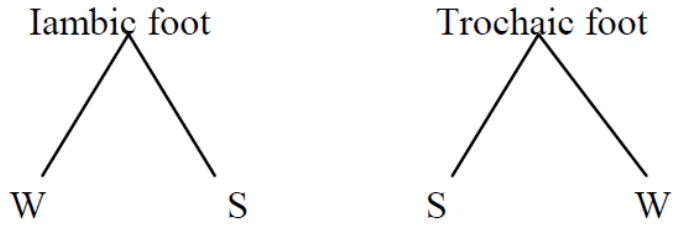


Figure (2.11): Types of Feet (Adopted from Dimmendaal,2012,p.2)

H95 illustrates that these three types are sufficient to be a group of metrical units indicating the bounded stress systems. He adds that Moraic Trochee and the Iamb denote quantity-sensitive languages while syllabic Trochee denotes Quantitative-insensitive. H95 proposes ITL (Iambic/Trochaic Law) due to the fact that foot types vary across languages and reflect different rhythmic structures, as stated below:

a. Elements contrasting in intensity naturally form groupings with initial prominence.

b. Elements contrasting in duration naturally form groupings with final prominence (cited inTanaka,1997,p.396).

3. He contends that syllable weight divides into two types: syllable quantity and syllable prominence.

4. According to Kager's (1989) strict binary hypothesis, Hayes (1995,pp.87-400) believes that parametric choice involves a weakened version:

"Strong/Weak Prohibition on Degenerate Feet Degenerate feet are forbidden (entirely/in weak position). Under the weak ban, weak degenerate feet are removed at the end of the word phonology" (cited in Tanaka,1997,p.398).

This restriction to avoid the degenerated foot and which is proposed by H95 is called the Priority Clause Principle (Jameel, 2016, p. 39).

5. He develops further parameters for foot parsing such as the locality parameter.

It is important to shed light on the basic conception of metrical stress theory. Besides, the idea that metrical stress theory is a theory of representing stress location across languages, is also used for representing an organization of principles in the phonological system. The core declaration of Metrical stress theory as stated by Tanaka is that:

> *Metrical structure functions as an organizing principle in the phonology of a particular language and even in the phonological component of UG* (1997,p.400).

This statement explains the stress nature: stress does not have an authentic physical or phonetic property but depends on other physical features. Pitch is a phonetic indication for tone in tonal languages and intonation in intonation languages; duration indicates vowel length in some languages and consonant length in others. Loudness or intensity is not the authentic property for stress as stated by Fry's (1955,1958), cited in (Takana,1997, p.401). That is why stress depends on other physical properties such as pitch and duration. However, the metrical structure cooperates with other phonological phenomena. This set of phenomena can be proposed as confirmation for the metrical structure existence which lacks phonetic correlation.

The connection between metrical patterns and other phenomena can be stated from the perspectives of height (grid), boundary (brackets), size and type (foot inventory). The metrical patterns are represented by the bracketed grid framework in H95 (Takana,1997,p.402).

The bracketed grid model is the most popular framework in metrical phonology. Halle and vargand in (1987) introduce Hayes bracketed grid model as the core part of their framework. Linguistically, a grid is defined as " a set of lines, each line defining a certain subgroup of the stress bearing elements" (Oostendorp,1993,p.323). Bracketed grid is defined as " pairs consisting of a set of complex objects (the lines) and one total ordering relation defined on those objects (the above relation). These, on the other hand are a set of simple objects (the nodes) with two relations defined on them (dominance and precedence) "(Oostendorp,1993,p.325).

2.3.2 Metrical Theory Models

There are two types of representation (i.e. models), namely the metrical tree and the metrical grid (Ali and Abd-Ghani,2014,p.37). They are explained below:

2.3.2.1 Metrical Tree

Relying on the works of Liberman and prince (1977), Hayes (1980) among others, metrical theory assumes that the system of stress across languages can be explicated by metrical trees (Pendy,1989, p.3), as shown in the example below:

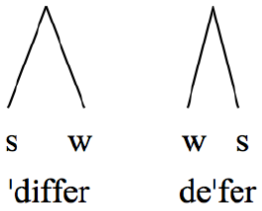


Figure (2.12): Metrical Tree Representation

(Adopted from Pendy,1989,p.3)

The central idea of metrical tree is to express the hierarchal structure of stress in its own representation. Metrical tree is represented by binary branching forms, each node is marked as (s w) and (w s). Consider the metrical tree of the word 'Alabama' (Kager,1995,p.368).

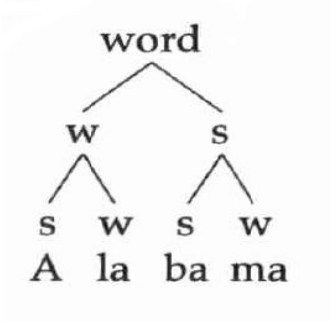


Figure (2.13): Metrical Tree of the Word 'Alabama'

(Adopted from Kager,1995,p.368)

In the example above, the first node from the bottom is stronger than the second one and the third syllable is stronger than the fourth syllable, besides, there is a strong-weak relationship between the superior branches themselves. Kager (1995,p.368) illustrates that in tree representation, stress is represented as a relational feature: a strong node is strong due to its existence near to the weak node. Pandey (1989, p.3) states that

metrical tree is useful in that it helps in accounting for the stress notion as relative prominence, and it helps to show other degrees of stress. Segments in the metrical tree are categorized into syllables, syllables into feet, feet into words, and words into larger units (Ali and Abd.Ghani, 2014, p.38). Metrical tree can represent the internal form of words, as in the following example:

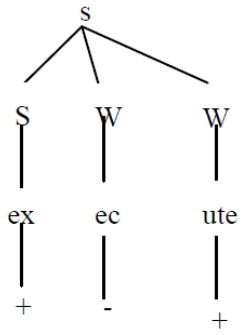


Figure (2.14): The Representation of the Inner Structure and Stress of the Word 'Execute' (Adopted from Ali and Abd.Ghani,2014,p.38)

2.3.2.2 Metrical Grid

Liberman and prince (1977) evolve the metrical grid as a model for rhythmic representation. They raise two points for discussion. first, Grids are vital in the conceptualization of the rules of rhythm. Second, the grid arrests the speaker's perception of stressed syllables more precisely than metrical trees and SPE phonology. They develop metrical grid to arrange the abstract elements in columns up to each syllable. The syllable prominence is represented by the height of the column (Hayes,1983,p.366). Crystal (2008) defines a metrical grid as follows:

> A FORMALISM used in some approaches TO METRICAL PHONOLOGY to display HIERARCHAL PATTERNS of SYLLABIC PROMINANCE presented graphically in columns(for relative prominence) and rows (for rhythmic

structure). Each syllable is assigned a position on metrical grid, strong syllable being assigned progressively higher layers in the grid (p.303).

While the metrical tree exhibits the nodes of relative prominence, it neglects the representation of rhythmic alternation between the strong and weak syllables. In addition to clash, Liberman (1975) proposes metrical grid for the representation of rhythmic structure (Kager,1995,p.369). Metrical grids are obtained from the metrical tree by a number of rules; the rules of grid construction are explained below. The place of the marker is assigned, as follows (Hayes,1984,p.55):

1. Each syllable is allocated by a mark on the grid lowest level.

2. The strongest syllable of each phonological word is assigned a mark at level two.

3. The strongest syllable at level three is assigned an additional mark more than its weak sister. These rules are applied in the following example:

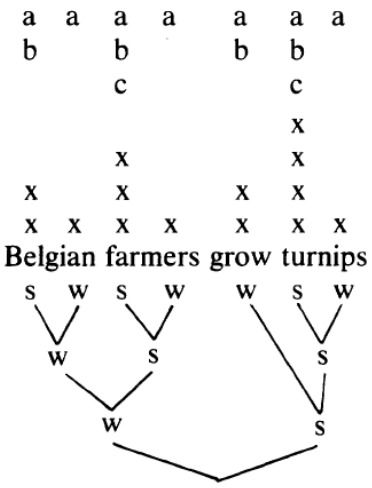


Figure (2.15): Grid Construction Rules (Adopted from Hayes,1984,p.35)

To sum up, the metrical tree and metrical grid are two models of representation in metrical theory. Each model is special per se. Goldsmith (1990,p.170) mentions that the two models share the following ideas in common:

1. It is essentially the study of stress and other suprasegmental features such as the foot that is shared between the two models.

2. Rhythm and sensitivity are the most important characteristics that determine the patterns of stress.

4. The hierarchal representation differs in both models, yet both of them have the same goal of representing the hierarchal structure which exists among stress patterns and syllable rhymes.

They are different in that tree represents hierarchy, constituency, and stress while grid represents hierarchy without constituency that is used to determine rhythm (Dresher, 1996, Cited in Ali and Abd. Ghani, 2014, 39).

2.3.3 Metrical Parameters

The metrical theory of stress that Hayes comes to develop after surveying more than three-hundred languages proposes the following parameters (Pendy, 1989, p.5):

Quantity-sensitivity: Quantity-sensitive (QS) vs. Quantity-insitive (QI)

Boundedness: Bounded vs. unbounded

Dominance: Left-dominant (Id) vs. right-dominant (rd)

Directionality: Left-to-Right (LR) vs. Right-to-Left (RL)

They are explained below.

2.3.3.1 Quantity-sensitivity

Quantity-sensitivity refers to the distribution of feet into light and heavy syllables. Roach (2000,p.98) states that a heavy syllable "either has a syllable peak which is a long vowel or diphthong or vowel followed by a coda", he also points out that "weak syllables have a syllable peak which is the schwa vowel….". Languages vary according to syllable weight. Perlmutter (1995,p.316) declares that "syllable weight is [...] the concept that explains co-occurrence restrictions among segments with quantity". Thus, languages are either quantity-sensitive or quantity-insensitive depending on stress assignment.

2.3.3.2 Boundedness

According to Hayes (1980), (as cited in Pearl,2008,p.117), boundedness indicates how long a metrical foot may be. Kager (1995,p.370) reveals that boundedness is the fundamental difference that can be seen among systems in which stresses occur within a restricted space from each other and from the edges of the word, other systems are not limited in this way. Boundedness counterpart is unboundedness. Unbounded feet are not limited in size while bounded feet are composed of only two syllables.

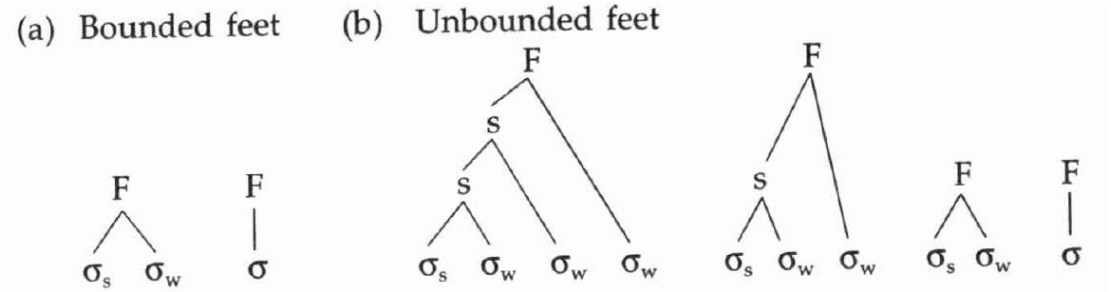


Figure (2.16): Head Initiated Feet (Adopted from Kager,1995,p.371)

There is a third type of foot which is known as the degenerated foot which includes only one syllable (Ali and Abd-Ghani,2014,p.41). Languages may allow or disallow the degenerated foot, so they differ in this respect (Pendy,1989,p.9).

2.3.3.3 Dominance

In light of the dominance parameter, languages may be left dominant or right dominant. Languages with initial stressed syllables are classified as left-dominant languages while languages with final stressed syllables are classified as right-dominant languages (Pandy,1989,p.7). Generally, a recessive node does not branch, so that feet that are left-dominant should be with a left branching and the right branching for right-dominant feet (Kager,1995,p.371).

2.3.3.4 Directionality

The order of the stressed syllables can be linked together into feet. Metrical feet can be raised from the left direction of the word or the right direction (Kager,1995,p.373).

2.3.4 Metrical Theory Rules

In addition to the parameters of foot construction mentioned above, H95 lists a number of principles and rules, these rules are stated below:

2.3.4.1 The Typological Properties of Stress Rules

Section (2.4,p.5) offers the surface typological properties of stress distribution, this section focuses on the rules that assign stress.

1. Free and Fixed Systems: The traditional idea of the typological rules of stress is that there are free and fixed stress systems. They denote the

phonemic state of stress for each language. The fixed stress location is predictable and can be assigned by a number of rules, while the free stress system is unpredictable and must be listed lexically. Such a typological property is insufficient to classify the stress system of a language. For example, in most languages, the stress location is restricted to a specific word location such as the last three syllables in Spanish. In Polish which is characterized by a penultimate stress position, it is acceptable to have words with antepenultimate stress assignment (Hayes,1995,p.31).

2. Rhythmic and Morphological Systems: Hayes (1995,p.31) states that a rhythmic stress system refers to the system that depends on syllable weight. In other words, it relies on the distance between stress and the boundaries of the word. A morphological stress system is concerned with the morphological structure in that a certain syllable of the root carries the main stress while affixes are unstressed or have a weak stress, the English stress system is a good example of a morphological stress system.

3. Bounded and Unbounded Stress Systems: According to the rhythmic system, languages can be divided into bounded and unbounded systems. In a language with a bounded system, the stress attaches to a limited boundary distance such as the English stem stress. In contrast, stress attaches to an unlimited boundary distance; for instance, stress in unbounded systems can be as follows: the stress would be the rightmost in a word containing a heavy syllable. If a word has no heavy syllable, stress would be on the initial syllable (Hayes,1995,p.32).

2.3.4.2 Formal Characteristics of Stress Rules

The discussion above displayed the general properties of typological rules of stress. In the present section five metrical rules are illustrated, as follows:

2.3.4.2.1 Locality

Stress rules differ from other formal rules that operate properties in some ways. Most rules of feature implement locality constraints, instead rules of stress are described as non-local. For example, the phrasal stress rules are operated as follows: the main stress locates on the rightmost syllable within a word (Hayes,1995,p.33).

Liberman and Prince (1977,p.262, (cited in Hayes,1995,p.33) state that the rules of stress which are characterized by non-locality can be explained by the hierarchal representation due to the fact that within a metrical grid framework, the heights layer is phonologically relevant. Prince (1983,p.27) believes that phrasal stress rules of English strengthen the higher grid mark in the phrase with string-adjacent from the right boundary (Cited in Hayes,1995,p.33).

2.3.4.2.2 The Continuous Column Constraint (CoCoCo)

The second feature of stress rules is the intent to amplify the prior existing contrasts, through making the strong syllable stronger and the weak syllable weaker. Prince (1983,p.33) initiates the idea of continuous column constraint to apply an incorruptible constraint to metrical representation due to the fact that metrical grid does not have any gap (cited in Hayes,1995,p.34).

Additionally, Hayes (1995,p.95) contends that the grid which has a mark on layer n + 1 and layer n with no mark, can be described as ill-formed, so phonological rules are obstructed when there is such an organization. As such, the continuous column constraint draws the following argument: if a syllable represents a rhythmic beat on one layer, it has to represent a rhythmic beat on each one of the lower layers.

2.3.4.2.2.1 Making the strong stronger and the weak weaker

Hayes (1995,p.35) lists a number of cases in which the Continuous Column Constraint depends on the patterns of constructing the weak weaker and strong stronger. These cases are listed below:

a. **Landing Stress for Stress Shift:** The rhythmic rules are applied in the case of stress shift as in the phrase *thirteen men*. Prince (1983, p.33) proposes that these rhythmic rules of stress shift receive the Move X form. As such, one grid mark moves at a moment alongside its layers. Move X solves the stress clash, the movement must be directed where the stress clash takes place along the row, as shown in the following example (Hayes,1995,p.35):

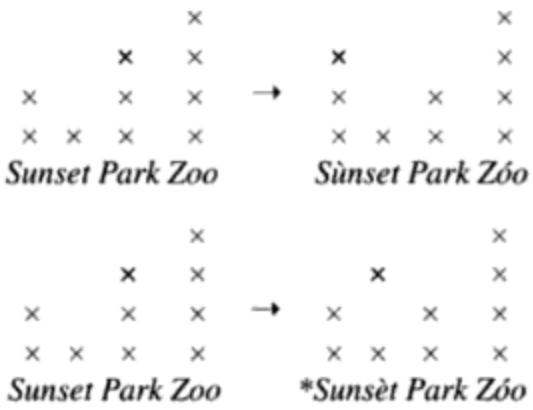


Figure (2.17): Application of Move X Rule (Adopted from Hayes,1995,p.35)

b. **Immobility of Stress Beat:** Another way of resolving stress clash is by moving the weaker stress instead of the stronger stress. It is mentioned in the preceding (Move X) rule that the movement must take place where the clash occurs, the strong stress movement cannot happen in the absence of making discontinuous columns (Prince,1983a, p.33; cited in Hayes,1995,p.36). Prince (1983)

states that one x will be moved at a time as it is illustrated in the example below:

Figure (2.18): The Movement of the Weaker X (Adopted from Hayes,1995,p.36)

c. **Main Stress Placement:** Another way of getting the strong column stronger is the main stress placement rule. In the light of this rule, stress chooses a subcategory from other syllables within the word; accordingly, stress B chooses the right or the leftmost as the main stress from these stressed syllables, as it is clarified below (Hayes,1995,36):

Figure (2.19): Main Stress Placement (Adopted from Hayes,1995,p.63)

d. Destressing: Hammond (1984) selects another way of making the weak weaker depending on Prince's point of view by applying the destressing rule. The rule reveals that it is always the weaker stress that is moved if there are two unequal strong stresses (cited in Hayes,1995,p.36).

2.3.4.2.3 Extrametricality

Liberman and Prince(1977) introduce the notion of extrametricality which becomes the fundamental concept of Hayes's (1981) metrical framework (Khalifa,2017,p.83). Kager (1995,p.379) states that

extrametrical units are not explored by the rules of metrical stress. It can be said that extrametrical elements are neglected by stress rules assignment.

Extrametricality appears to be at the boundaries of the field. Angled brackets< > are used to enclose an extrametrical segment. Roca and Johnson (1999,p.223) explain that ‘‘extrametricality is the exclusion of the designated peripheral element from the computations in the metrical grid’’ (cited in Khalifa,2017,p.57). Kager (2007, cited in Khalifa,2017,p.83) asserts that extametricality is invisible to the rules of stress assignment.

2.3.4.2.3.1 Extrametricality Motivation

The notion of extrametricality appears in the circumstances of stress assignment. If the initial or final syllables were ignored, the simpler rules of stress assignment could be formulated (Hayes,1981,1983;Halle and Clement, 1983;Hogg and MacCully, 1987). English verbs neglect the final consonant, as it is shown in the examples below, (khalifa,2017,p. 84).

a'ttend /ə'ten<d>/

re'main / rɪ'meɪ<n>/

a's tonish /ə'stɒnɪ<ʃ>/

In the above examples, the rules of stress assignment can be formulated by using extrametricality as follows: in *attend* and *remain* the heavy syllable is stressed while in *astonish* the penultimate syllable is stressed. Prince(1983,p.29) points out that only the edges of the word can be extrametrical (cited in Khalifa,2017,p.85).

2.3.4.2.3.2 Restricting Extametricality

Kager (1995, p.379) illustrates that extrametrical elements are limited to the peripherality condition. The condition indicates that ‘‘ a constituent may be extrametrical only if it is at designated edges (left or right) of its domain)’’ (Hayes,1995,p.57 cited in Khalifa, 2017, p.85). Hayes lists the following points in constraining extrametricality:

1. Regarding constituency, the elements that can be marked as extrametrical are: segment, syllable, foot, phonological word, affix.

2. Only the constituent at the edge of the word can be extrametrical in the light of the peripherally condition.

3. The right edge is the unmarked edge for extrametricality in applying the edge markedness restriction.

4. The rules of extrametricality are blocked if it designates the entire word as extrametrical.

2.3.4.2.4 End Rules (ER)

Primary and secondary stresses from the MST perspective, differ in degree not in quality. In other words, primary stress is more powerful than secondary stress. As such, MST suggests the construction of an extra layer above the foot structure that already exists (Prince,1983,p.411).

Pintupi	Wargamay	
(x)	(x)	Word layer
(x •)(x •)	(x •)(x •)	Foot layer
a. **pú**.[ŋ.**kà**.la.ʈu	b. ɟu.ɽ**á**.gay-**mì**.ri	

Figure (2.20): The Word Layer (Adopted from Prince,1983,p.412)

In the above example, the additional layer of structure is called the word layer. At this layer, each foot and unfooted syllable is grouped into a unit, assigned by parentheses. In both cases (a) and (b) the word component has two feet and an unfooted syllable. This word component includes a head, assigned by X. There are two options for placing the head. It may be placed on the rightmost foot or on the leftmost foot of the head. In this example, X is placed on the leftmost foot depending on the culminitive stress feature, primary stress is indicated by a syllable with two Xs; secondary stress is indicated by a syllable with one X. An unstressed syllable is indicated by a dot (**.**). Primary stress is produced from a secondary stress due to the fact that the head of the word unit is derived from the heads of feet. Both stresses are similar in quality, marked by the X grid mark. They contrast only in the degree of stress, marked by an additional X (Prince,1983,p.412).

Prince (1983) posits End Rules for formulating the word constituent. Hayes (1995:61, cited in Prince,1983,p.412) explains the influence of these rules (End Rules Left/Right), as follows:

1. They create a new metrical constituent of a maximal size at the top of the existing structure.

2. They place the right mark forming the head of this constituent in the (leftmost/rightmost) available position.

2.3.4.2.5 Faithfullness Condition

There is a relation of correspondence between grid representation and bracketed grid representation. In expressing this view, Hammond (1984), Halle and Vergand (1987) state that each structure consists of an individual grid mark, and each grid mark is involved in an individual

structure. This demand is called the faithfulness condition (Cited in Hyes,1995, p.41)

Hayes (1995,p.380) posits that ‘‘Grid marks must be in one-to-one correspondence with domains of which they are heads’’. Hulst (2008,p.182) clarifies that the faithfulness condition denotes that each grid mark is the head of some remarkable domain and that each domain is included within a remarkable head.

2.4 Review of the Related Literature

This section deals with previous studies related to the current study. It starts with findings related to metrical theory then findings related to nursery rhymes. Studies on metrical theory include Iraqi studies, Arabic studies, and Foreign studies. A number of researchers are mentioned as they adopt different models and different versions of metrical theory to achieve their objectives. Studies on nursery rhymes explore the theoretical notion of nursery rhymes and the metrical analysis of some rhymes.

2.4.1 Studies on Metrical Theory

2.4.1.1 Iraqi Studies

Al.Abdely (2011,pp.379-380) conducts a study to analyze the stress patterns of Iraqi Arabic, especially, Hity Iraqi Arabic (henceforth HIA). His study depends on Hayes’s (1995) metrical theory in the analysis of the data. He attempts to determine the primary stress in 500 HIA lexical words which consist of only four syllables. The data analysis of this study is recorded on tapes in which people are asked to speak about their families, favorite jobs, foods, etc.

It can be concluded that Al.Abdely's study inquires about the primary stress patterns of HIA. The study displays that metrical theory is capable of accounting for stress location in dialects as well as classical languages. Additionally, it examines stress location in lexical words of four syllables in the light of metrical theory. It is obvious that metrical theory succeeds in anticipating stress patterns in HIA by applying some metrical rules such as end rules, priority clause principle, weak local parsing, and extreametricality. The researcher achieves the following results:

1. Hity variant depends on syllable weight in assigning stress, so it is a quantity-sensitive language.

2. Feet are known as moraic feet and they are binary in HIA. The degenerated foot is disallowed in HIA.

3. Exatrametricality can be applied to the segmental level to determine the accurate stress patterns, in which the consonant is marked extrametrical. Also, it can be applied to the prosodic level in which the whole syllable is marked extrametrical.

4. There is no specific position for determining stress in HIA lexical words, in such a case all syllables are predicted to carry stress.

5. Feet parsing is done from left to right edges.

6. Lexical words with four syllables are good for dividing them into moras to avoid the complexity in patterns and details.

7. The last superheavy syllables are stressed after applying the final syllable extrametrical. The heavy syllable next to the last one is stressed where the last syllable is not super heavy while applying extrametricality to the final syllable. Finally, the third syllable before the end is stressed

after applying foot extrametricality and end rules right (Al-Abdely,2011,p.399).

Ali and Abd. Ghani (2014,p.35) identify word stress patterns in Modern Standard Arabic. They state that word stress in phonological theory is given great emphasis in Arabic among other languages; the metrical theory is one of these theories. Ali and Abd.Ghani trying to dissect the primary stress patterns of stressed words, particularly monosyllabic, disyllabic, trisyllabic in the view of metrical theory and depending on its two models metrical tree and metrical grid, and explore how metrical theory can show the accurate place of stress in the word.

In this study, Ali and Abd.Ghani (2014,p.50) conclude that lexical word stress in MSA can be analyzed in terms of Hayes' (1995) metrical theory by adopting a number of rules such as extrametricality, end rule right, and priority clause principle. To illustrate stress in two different ways, they use metrical tree and metrical grid. Metrical tree is used to represent the hierarchal structure of the prosodic word while the metrical grid is used to represent the prosodic structure which is related to stress assignment in MSA such as the prominence of the stressed syllable. They sum up the following conclusions:

1. MSA is described as a quantity-sensitive language due to its dependence on syllable weight to determine stress placement.

2. MSA is described as moraic trochees because all of its feet are binary and degenerated feet are not permitted.

3. Exrametricality can be employed in two aspects; segmental and prosodic. The former means to assign stress location accurately, whereas the latter means to assign the primary stress placement.

4. After rendering the final consonant extrametrical and applying end rules right, stress is put on the final superheavy syllable in disyllabic words and on the pre-final syllable in light-heavy syllable patterns. While in heavy-heavy syllable patterns stress is located on the pre-final syllable after rendering the final syllable extrametrical. On the other hand, the stress in trisyllablic word is put on the final superheavy syllable after making the final consonant extrametrical and after applying end rules right, and on the prefinal heavy syllable if there is no superheavy syllable after rendering the final syllable extrametrical. In other cases, stress is put on the initial syllable after rendering the final consonant, the final syllable or the final foot extrametrical.

Jameel (2016,p.x) devotes her study to analyzing the stress patterns of words and phrases of the Qur'anic language. She uses Hayes' (1995) metrical grid model in examining the stress patterns of eight short Qur'anic chapters. She (2016,p.x) states that Qur'anic language is a rhythmic language so Hayes's metrical theory can account for the rhythmic patterns of Qur'anic chapters depending on Hayes's statement "stress is the linguistic manifestation of rhythmic structure".

Jameel's study examines the metrical structure of eight Meccan short Qur'anic chapters by adopting phrasal stress rules. The results can be summarized as follows (Jameel,2016,pp.394-395):

1. One hundred and seventeen lexical words are categorized into monosyllabic, disyllabic, trisyllabic, and tetrasyllabic words. The study reveals that disyllabic and trisyllabic words are the central rhythmic patterns while the recurrent words are monosyllabic and tetrasyllabic which are ranged between 7.69% and 6.83%. The study also states that

Qur'anic language is quantity-sensitive due to its reliance on syllable weight in assigning word stress.

2. The first and second hypotheses were verified which state that Hayes's (1995) metrical theory is applicable to assigning stress to Qur'anic words and phrases and the backed grid model successfully accounted for the rhythmic patterns of Qur'anic language.

3. The study explores the differences and similarities between English and Classical Arabic in applying phrase stress rules. Classical Arabic differs from English in the BA (Beat Addition) [1] rules, are employed pretonically due to the position of the strongest beats which occur at the end of all verses. Classical Arabic is similar to English in applying Move X rules. Qur'anic language has leftward stress in compounds and rightward stress in phrases. In this case, the third hypothesis of the study which claims that the relative prominence belongs to universal patterns among languages is varified.

2.4.1.2 Arabic Studies

Mahmoud (2015,p.iv) deals with aspects of the phonology of English loanwords in Jordanian Urban Arabic. She tries to show which Jordanian Urban Arabic speakers utilize some more English loan words and how these loan words are accommodated. She raises two main research questions. First, what are the phonological restoration strategies experienced by female university students of Jordanian Urban Arabic?, second, is there any connection between the recurrent use of English and

[1]Beat Addition rules are originated by Selkrik (1984) then developed by Hayes (1984) who states that BA "Freely add additional marks to the grid columns, provided the relative prominence relation specified in the tree are preserved".

English loan words and the phonological restoration strategies participants use?

The study depends on questionnaires in collecting data. Two groups are formed; participants who are specialized in English and those who are unspecialized. The data are analyzed from the perspective of three theories one of them is Hayes' (1989) metrical theory. Metrical theory is used to present the metrical structure and lexical stress shift of the analyzed data. Drawing on a number of distinctive feature rules, moraic and metrical rules are connected to strategies that loan words tolerate. The study shows that the specialized group is more probable to use English loan words and to preserve the English phonemes, and the final consonant clusters than the unspecialized one (Mahmud,2015,p.iv).

Huneety and Mashaqba (2016,pp.2-3) examine stress patterns of Bedouin Jordanian loan words, especially in the north of Jordan according to Hayes' (1995) metrical theory. Their data consist of 120 words produced by 32 native speakers in the north of Jordan, 16 males/females of different ages (35-70) and from different educational levels (19 at the primary level) and (13 at the secondary level), which belong to four dialects: Bani Hassan Arabic, Bani Xalid Arabic, Sarhan Arabic, ʔ il-Jabal Arabic.

The data are translated into English language. Research data are of two types; firstly, recorded conversations of 14 members. They are asked to talk generally, taking into consideration that the conversations should contain loan wards. Secondly, 18 members are chosen to read 120 loan words loudly (Huneety and Mashaqba,2016,p.3).

The researchers show that loan words are quantity-sensitive depending on two parameters syllable weight and directionality. Stress location is restricted by the following rules:

1. Stress is attached to the last superheavy syllables.

2. Stress is attached to the penultimate syllable if it is heavy, otherwise the antepenultimate syllable carries stress (Huneety and Mashaqba, 2016, p.3)

Finally, the study reveals that Bedouin Arabic loan words in the north of Jordan are right-headed feet due to their direction from left to right and the degenerated foot is excluded. Then, this dialect is different from other Bedouin dialects in the south which are described as having iambic stress patterns (μ 'μ) (Huneety and Mashaqba, 2016, p.12).

Khalifa (2017,p.xv) conducts a contrastive metrical analysis study of main word stress in British English as the accent used in teaching in Egypt (target language) and Cairene colloquial Arabic (native language). He analyzes Cairene Colloquial Arabic interlingual errors in English main word stress by adopting Halle and Vergnaud's (1987) metrical approach and Archibald's (1998) parameter resetting. Khalifa's study is built on three hypotheses. First, instead of applying the rules of English stress, the subjects apply the stress rules of Cairene colloquial Arabic. Second, it is hypothesized that the subjects partially can reform Cairene colloquial Arabic stress parameters to English stress parameters. Third, the study will be applied depending on the following orders: English teacher, medical students in the final stage, non-medical students in the last year of graduation, and secondary students in the last year of graduation (Khalifa,2017,p.xv). It is worth noting that this study is not concerned with more suprasegmental features such as secondary stress,

sentence stress, rhythm, and intonation. Instead, it tries to investigate the causes behind doing such stress errors and find solutions (Khalifa,2017,p.7).

The comparison between Cairene colloquial Arabic and English syllable structure and stress parameters illustrates that Cairene colloquial Arabic onset, nuclei, and codas are a subcategory of the correlated English syllable components and parameters such as extrametricality and directionality which are supposed to be the origin of stress errors because they are the only two various parameters of locating stress in the two languages. Finally, the study concludes that the subjects face a difficulty in pronouncing stressed items which differ from the stressed items in Cairene colloquial Arabic and vice versa. Parameter resetting leads to correct stress patterns. Stress patterns of English which differ from those of Cairene colloquial Arabic are the main reason for learning complexity, and the manifestation of negative transfer can be related to lexical learning instead of learning that depends on rules application (Khalifa,2017,p.xv).

2.4.1.3 Foreign Studies

Hammond (1995,p.313) attempts in his study to examine the central assumption of metrical theory and investigate the fundamental topics in metrical phonology for 18 years. He raises a number of questions on foot typology whether it is symmetric or not, whether there is a precise binarity necessity, and how to present ternary iteration.

The study shows that metrical rules deal with constituency. Hammond (1995,p.314) gives a number of examples to explain constituency-headedness relationships. One of those examples is given below:

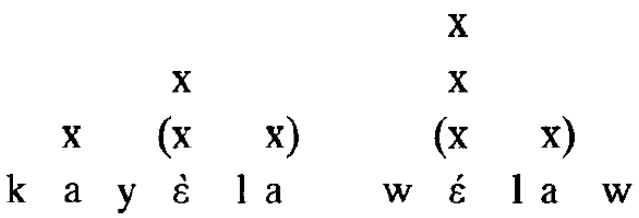


Figure (2.21): Constituency-headedness Relationships (Hommand (1995, p.314)

As shown above, in the two words, syllables are footed from right to left, then, the primary stress is put on the superordinate structure from the right edge of both words. Each structure denotes stress in the light of 'headedness'. In such a type of foot parsing, the foot is described as binary trochaic.

Hammond (1995,p.339) illustrates that the last years witnessed a movement from constituency to emphasis on how constituents can be situated. This idea leads to the exploration that constituents are not governed by particular rules. Instead, a set of constituents' representations are produced then processed by the constraint hierarchy of particular languages.

Kehoe (1998,p.1) specifies his doctoral dissertation to applying metrical theory to stress acquisition. He presents a comprehensive analysis of stress errors which are made by English speaking children. Children (whose ages from 22 to 34 months) are asked to produce trisyllabic words. To add more importance to his investigation, the researcher makes a comparison between his study and a previous Dutch study. This study employs Hayes' (1995) metrical theory with the bracketed grid model.

Kehoe mentions that metrical theory is used to analyze the stress systems across languages, but its application to children's speech is rare. A number of studies focus on the importance of metrical theory in stress

acquisition such as (Fikkert, 1994; Hochbey,1988; Archibald, 1995). He sheds light on the main parameters of metrical theory that are suitable for analyzing children's stress errors (1998,p.1).

The study supports metrical theory in analyzing stress errors made by English children. It highlights the fundamental stages of stress development and stress errors compatible with metrical theory parameters. Also, it concludes that the differences between English and Dutch studies may be due to the linguistic differences between them. Finally, it emphasizes the significance of combined approaches of linguistic theory and acquisition theory in the development of phonology (1998,p.1,p.21).

Watson (2011,p.25) presents an investigation to illustrate the features of Arabic word stress from a generative standpoint and more precisely from a metrical phonology perspective, he also supplies his study with a description of the stress systems of four Arabic variants: Classical Arabic, Cairene, Sen'ani, and Levantine. He gives in detail the differences and similarities of the word stress features among Classical Arabic and the three Arabic dialects.

Watson (2011,p.1) states that all Arabic variants manipulate word stress, and this word stress reveals differences due to the social and geographical diversity. In general, in all variants stress placement is governed by syllable weight and syllable position. They vary in the allocation of syllable types (the leftmost extent of stress), rhythmic patterns, the lexical effect on stress, among others.

However, he identifies three types of syllable weight: light, heavy, and super heavy. Light syllables are open, heavy syllables either open or closed, and superheavy syllables are either closed or doubly closed. He

also mentions that stress is assigned to the last three syllables. In addition, he concludes that all modern Arabic variants contrast with classical Arabic in removing short vowels in unstressed open syllables (Watson, 2011, p.2).

2.4.2 Studies on Nursery Rhymes

Lestaric (2006,p.1) supplies details about the folk lullabies sung by Iraqi mothers to their babies. He indicates the particular characteristics of this type of oral literature in this region (Mesopotamia) of the Arabic world. The study contains a number of lullabies translated from the Iraqi dialect to the English language with Latin transcription.

Lestaric (2006,p.17) points out that this literary genre is plentiful with unique features, so translating it requires orientation towards the correct rhyme, meter, and rhythm to establish uniformity connection between the whole meaning of the text and the individual words and phrases. The researcher also draws the intention to the beauty and linguistic elements of such a kind of lyrics that conserve faultlessly.

Dufter (2011,p.261) focuses on studying the metrical patterns of nursery rhymes from 50 languages. Depending on Burling statement which states that nursery rhymes support the idea of universally preferred patterns, Dufter attempts to review Burling's ideas and concentrate on two important questions:

1.To what degree are the metrical patterns of nursery rhymes equivalent among languages?

2.To what degree are there partiality in choosing a metrical structure according to the prosodic system of a particular language?

Two exchangeable viewpoints related to prosody and poetry are introduced. Optimality theory and natural metrics. The first one focuses on the universal binarity constraints of different metrical patterns while the other states that metrical structure relies on individual languages prosodic system (Dufter, 2011,p.261).

Optimality approaches and the metrical approach are adopted in analyzing the data. Analyzing nursery rhymes of 5o languages ends with two results. First, metrical structures vary across languages, even in language variants. Silent beats position is unpredictable, it is not constricted to occur at the end of the line; lines with less than four beats are common, unlike lines with more than four beats. Binarity constraints cannot examine all metrical pattern distributions. Second, concerning the relationship between the prosody of a specific language and its metrical structure, the study concludes that prosody forms verse structure to some extent (Dufter, 2011,p.261).

In summary, it is clear that the above studies are related to the present study, but no one of them has studied the rhythmic structure of IA nursery rhymes according to Hayes's (1995) metrical theory. The present study tries to fill the gap.

Chapter Three

IA Word Stress and Nursery Rhymes

3.1 Introduction

The present chapter deals with the features of Arabic and IA word stress from a generative point of view. It also presents a historical background of IA from different linguistic levels and shows how IA differs from MSA. Then, it sheds light on nursery rhymes in a general sense, and IA nursery rhymes in particular.

3.2 A Theoretical Account of Arabic Word Stress

Uaiwi and Betti (2018,p.83) believe that stress is a prosodic property whose nature is hard to be described. In English, phonologists discuss the nature of stress from two viewpoints; articulatory (what the speakers do in pronouncing a stressed syllable) and auditory (what are the features that make a syllable sound stressed for the listeners). Stress is the suprasegmental property of consonant, vowel, and syllable (Al-Thamery and Ibrahim, 2005, p.25). Jones (1967, p.245), cited in Al-Thamiry and Ibrahim (2005, p.25), defines stress from an articulatory view as " the degree of force with which a sound or a syllable is uttered". From an auditory standpoint, Betti and Ulaiwi (2018, p.83) state that "stress is perceived as prominence". In general terms, stress refers to the degree of loudness used in articulating one syllable in the same word over others. Languages exhibit different types of stress patterns. Ali and Abd-Ghani (2014,p.35) explain that the Arabic language is stressless, such a language has fixed stress in that there are no two words that can be distinguished by two different stress placement due to the high predictability of the placement of stress.

Jameel (2016, p.82) states that Arab linguists and non-Arab linguists have investigated stress. Some of them are concerned with investigating the rules of assigning stress placement in Standard Arabic and various Arabic dialects. Some of the Arabic phonologists describe stress as a feature of words while others put a list of rules in assigning the placement of stress (Betti and Ulaiwi, 2018, p.83). Stress is presented as a compression, which makes the syllable more prominent than other syllables within a word (Betti and Ulaiwi, 2018, p.84).

Stress in Arabic is non-phonemic. Generative phonologists state that stress placement is predictable in that several rules can be formulated to determine the stressed syllable. As a variant of Arabic, IA depends on a number of rules in assigning stress. These rules are explained in the coming pages.

The way of dividing a word into syllables varies across languages. For instance, the structure of syllables in English depends on sonority. The nuclei of the syllables are vowels because they are more sonorant than a consonant. The margins of a syllable in Arabic are also consonants (Brosnahan and Malemberg (1970, p.141) cited in Al-Thamery and Ibrahim (2005, p.24)). The structure of the syllable, in MSA and all Arabic dialects, is the same (Ali and Abd.Ghani, 2014, p.39).

Phonologically, a syllable is composed of the onset and the rhyme; the rhyme is composed of the peak and coda. A syllable can be categorized as either closed or open. Syllables that end with a vowel (CV) are open, whereas syllables ending with one consonant (CVC) or two consonants (CVCC) are closed (Hyman (1975, p.188) cited in Al-Thamery and Ibrahim (2005, p.23)). For instance, in IA a closed syllable contains a short vowel as its nucleus while an open syllable includes a long vowel as

its nucleus. For example, /*riʒit*/ 'I went' and /*baʕ iid*/ 'far' (Al-Bazi, 2006, pp. 5-6). In the figure below S(strong) indicates the rhyme of the syllable which is the nucleus or peak that can be followed by a consonant, whereas (W) is the weak part of the syllable (Ali and Abd-Ghani, 2014, p.40).

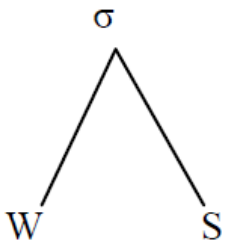


Figure (3.1): The Structure of Arabic Syllable (Adopted from Ali and Abd-Ghani 2014, p. 40)

Watson (2011, p.2) states that Arabic distinguishes three weights of syllables. He classifies syllables weight into; light (which are open syllables), heavy (may be closed or open syllables), and superheavy (are either closed syllables or double closed). However, dialects vary in the syllable types distribution. Stress occurs on one of the last three syllables in some dialects. In other variants, stress occurs over one of the final four syllables.

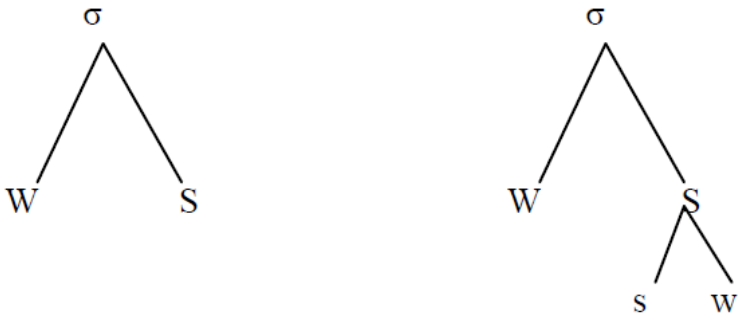


Figure (3.2): Light and Heavy Syllables in Arabic (Adopted from Ali and Abd-Ghani 2014, p.40)

Ali and Abd.Ghani (2014, p.35) study the stress patterns of MSA in terms of metrical phonology in the light of rules and parameters of the metrical theory. They attempt to investigate the metrical patterns of primary word stress in MSA particularly in some Arabic variants (See 2.4.1.1).

CA differs from Modern dialects in that the latter omits the short vowel in unstressed open syllables. For instance, several dialects omit vowels which are characterized as they are short and high as in the Damascene word /*fihim-u*/'they understood' becomes ['*fihmu*] (Cawell (1964) cited in Watson 2011, p.3)). In some dialects, a particular morpheme influences the placement of stress. For instance, in IA, the double suffix (*–een*) draws back stress, in spite of the fact that some cases of words end with CVVC exhibit stress: ['*Čalbeen*] 'two dogs' differs from [*taʕ 'baan*] which means 'tired' (as cited in Erwin, 2004, p.43)

3.3 IA Phonemic Inventory and Morphology

The phonemic system of IA differs from one system to another in the number of phonemes and accurately in the number of consonants. For instance, Al-Khalesi (2001, p.1) states that IA has thirty consonants while Albuarabi (2018, p.1374) illustrates that IA contains thirty-one consonants. Al.Bazi (2006, p.1) lists seventeen voiced consonants and sixteen voiceless ones. On the other hand, Erwin (2004, pp.5-17) explains that IA has thirty-eight consonantal phonemes. Phonetically, Erwin (2004, p.3) depends on the following characteristics in his classification of IA consonants: voicing, place of articulation, and manner of articulation. The table below shows the consonantal phonemes that are used in the present study:

Table (3.1): The IA Consonantal Symbols (Adopted from Erwin ,2004,p.3)

IA Consonant	Its Symbol	Examples	Meaning
ء	ʔ	*ʔaani*	I
ب	*b*	*balam*	boat
ت	*t*	*tiin*	fig
ث	*θ*	*θalij*	ice
ج	*j*	*jaay*	I come
چ	*č*	*čaan*	was
ح	*ح*	*حaliib*	milk
خ	*x*	*xaal*	uncle
د	*d*	*doora*	round
ذ	*ð*	*ðaak*	that
ر	*r*	*raaح*	he went
ز	*z*	*zeet*	oil
س	*s*	*salaama*	safety
ش	*Š*	*Šakar*	sugar
ص	*ṣ*[1]	*ṣuura*	picture
ض	*ḍ*	*ḍaam*	he hide something
ط	*ṭ*	*ṭabeeb*	doctor
ع	*ع*	*عizam*	he invited
غ	*ġ*	*ġurfa*	room
ف	*f*	*farحaan*	he is/I am happy
ق	*q*	*qariib*	near
ك	*k*	*kul*	all
گ	*g*	*gaal*	he said
ل	*l*	*laazim*	necessary
م	*m*	*marii ḍ*	sick
م	*ṃ*	*ṃaay*	water
ن	*n*	*naع saan*	sleepy
ه	*h*	*humma*	they
و	*w*	*warid*	flowers
ي	*y*	*yim Ši*	he walks

Vowels are divided into pure vowels and diphthongs. Pure vowels are divided into two types: short and long. Diphthongs are composed of two

[1] The dot beneath the symbol denotes that the symbol is emphatic.

short vowels, the time of producing a long vowel is identical to the space-time of producing one diphthong (Al.Bazi, 2006,pp.5-6). The table below illustrates the pure vowels and diphthongs used in the present study:

Table (3.2): The IA Vowels (Adopted from Erwin, 2004,p.4)

The IA Vowel	Its Symbol	Example	Meaning
ـَ	*a*	*wara*	behind
ـُ	*u*	*duwa*	medicine
ـِ	*i*	*sitra*	jacket
ا	*aa*	*baab*	door
و	*uu*	*kuub*	cup
ي	*ii*	*Šitriid*	what do you want?
ي	*ee*	*beet*	house
ـُ	*oo*	*moot*	death
أوْ	*aw*	*Šaafaw*	they saw
أيْ	*ay*	*mayriid*	he does not want

Morphologically, the Iraqi word mostly consists of a stem such as */yoom*/ 'day', or a stem with one or more affixes as in */yoomeen*/ 'two days'. Words as */tara*/ 'or, else' never contain an affix such types are free stems. Others consist of stems with an affix as *-ktib* in */yiktib/* ' he writes' . Stems, however, are either simple or complex depending on their internal structure. For example, the word */Šifitha* / 'I saw her' includes the stem */Šifit/* 'I saw' with the suffix(–ha) 'her'. The stem */Šifit*/ also consists of the simple stem */Šif/* 'saw' with the suffix (–it) 'the first person singular subject', so a stem such as */Šif/* is called a complex stem. A complex stem can be defined as a stem that is constructed from a stem with one or more affixes with which the other affixes are to be attached. On the other hand, a simple stem cannot be explained in terms of stem and affix. A simple stem is set into two classifications: root and pattern, and solid stem. A great number of Iraqi word structures are constructed

from a stem that includes two categories a root and a pattern. A root includes the general sort of lexical meaning, often, associated also with English concepts which are expressed by verbs, nouns, adjectives; and words including the same root which their meanings are related to the basic or general concept. For example, */drs/* is the root that is related to the concept of 'studying'. A pattern includes the general grammatical meaning. It consists of one or more vowels or one or more consonants, combined with a root's consonant. For instance, the verb */diras/* 'he studied' is composed of the root */drs/*; the pattern has the grammatical meaning 'verb, perfect tense'. The lexical meaning of the root with the grammatical meaning of the pattern form the general meaning of the stem (Erwin, 2004, pp.47-48). Finally, solid stems are a few stems that cannot be described in terms of root and pattern. They exist among the particles such as conjunctions, pronouns, and prepositions and borrowed words, for example, */raadyo* / 'radio' and */bas/* 'only' (Erwin, 2004, p.54).

3.3.1 The Differences between IA and MSA

Biadsy and Hirschberg (2009), cited in Albuarabi (2018, p. 1373), explain that MSA is the official language in the Arab world. MSA is based on classical Arabic phonologically, morphologically, and syntactically. Ridha (2015, p.25) states that the differences between MSA and the other varieties of Arabic or among these varieties are based on several linguistic levels:

(a) Phonological differences can exist when there are several identical words that exist in MSA and other Arabic variants but are pronounced differently.

(b) Morphological and (c) Syntactic differences can exist when several morphological and syntactic rules exist in one certain variety but never exist in the others.

(d) Lexical differences can exist when several words exist in MSA but never exist in other varieties and vice versa.

(e) Semantic differences can exist when some shared words have different meanings in each variety.

IA like other Arabic varieties differs from MSA in a number of linguistic levels; the following sub-section deals with some of the phonological and syntactic differences.

3.3.1.1 Phonological Differences

Al.Bazi (2006,p.22) summarizes the main phonological differences between IA and MSA into differences in consonantal sounds and differences in vowel phonemes, as follows:

1. The difference in consonantal sounds: IA differs from MSA in having the following phonemes:

a. /*g* /: this consonant is used instead of the MSA phoneme /*q*/, for example, the word فوق 'over', on' is pronounced as /*foog*/ in IA instead of */fawq/* in MSA.

b. / *Č* /: the present sound is an alternative to the /*k* / phoneme in MSA. For example, كان 'He was' is pounced as /*kaana*/ in MSA while it is used as / *Čaan*/ in IA. It is worth mentioning that / *Č* / is restricted to southern and Baghdadi dialects.

c. /p/: IA unlike MSA has this additional consonantal sound such as in the word /*paraŠuut*/ 'parachute' or the word /*parda*/ 'curtain'.

2. The difference in vowel phonemes: unlike MSA, IA has the following three additional phonemes :

a. The long vowel /*ee* /: The Iraqi speakers use this phoneme to replace the MSA phoneme /*ey*/ as in the pronunciation of the word بيت 'house'. It is pronounced as */beet*/ in IA but as /*beyt*/ in MSA.

b. The long vowel /*oo* /: this phoneme does not exist in MSA, for instance, the word ذوق 'taste' is pronounced as /*ðawq* / in MSA but as /*ðooq*/ in IA.

3.3.1.2 Syntactic Differences

Al.Bazi (2006,pp.41-46) mentions that there are a lot of syntactic differences between IA and MSA, some of them are illustrated below:

1. The relative pronoun / *ʔil li* /: regardless of gender and number, the present pronoun is used. For example, */ʔalkitab ʔal laði qaraʔtahu*/ 'the book I have read' in MSA is uttered in IA as /*ʔalkitab ʔil li qareeta*/.

2. The use of /*raah*/ instead of /*sa*/ or */sawfa*/: to express future tense the IA speakers use */raah*/. For example, / *raah ʔaŠuufak/* 'I will see you' is used in IA while it is uttered as / *saʔaraak* / in MSA.

3. The use of the particles (*–da*) and (*–jaay*) to express continuous tense: in IA the particle (*–da*) is added to a verb to express continuous tense unlike MSA which does not have any form of the verb to express progressive tense instead it uses an adverb of time */ʔalʔaan*/ 'now'. For example, */ʔanaa ʔaʔkul ʔalʔaan/* 'I am eating now' is uttered by Baghdadi speakers as /*ʔani daʔaakul* / or */aana jaay ʔaakil* / as it is uttered by southern speakers.

3.3.2 IA Word Stress Features

Erwin (2004, p.40) states that stress is " the relative loudness or force of one syllable over others in the same word". He describes two types of stress in IA: automatic, and non-automatic stress. In most words, stress is restricted by consonant-vowel structure, the stress of this type is called automatic stress. In particular types of words, stress contrasts with the automatic type of stress; it is known as non-automatic stress. According to the formula of automatic stress, stress is predictable. Erwin (2004, p. 40), in describing this formula states that:

> *Stress is on the syllable containing that long vowel, or a short vowel followed by two consonants or a double consonant, which is nearest the end of the word; in the absence of such a vowel, stress is on the next-to-last syllable in two-syllable words and on the third-from-last in all others.*

Non-automatic stress exists in words consisting of prefixes and suffixes, and in words ending with (*–aa*). Erwin (2004, pp.42-43) summarizes stress placement in the following points:

1. In the first person singular of verbs, in the perfect tense and the second person masculine singular pronoun, the syllable preceding the suffix is stressed as in /*tarja'mit* / 'you/I translated'

2. In words composed of a verb stem ending with (*–a*) in the perfect tense the third person masculine or verb stem ending with (*–at*) for a feminine, the syllable preceding the suffix is stressed as in the examples below:

/xaa'bara / 'he phoned him'

/xaab'ratta / 'she phoned him'

3. In words ending with the double suffix (*–een*), in two-syllable words stress occurs over the preceding syllable, whereas in the words of three or more syllables, stress is over the first syllable as in */bee'teen*/ ‘two houses’ and /'*ṭaabuugteen/* ‘two bricks’, respectively.

4. Stress falls on the negative prefixes (*-ma*) and (*–la*) ‘not’. For example, */mayriid*/ ‘he does not want’ and */latibqiin*/ ‘don’t stay’.

5. In words containing the interrogative prefix (–Š) ‘what?’, stress can fall on the initial following vowel. For example /*Š-ʹitriid* / ‘what do you want?’.

6. Stress falls on the vowel preceded by one of the prepositional prefixes (*–b*) ‘in’, (*-l*) ‘to’, and (*–mn*) ‘from’ as an in */b'amriika/* ‘in America’.

Additionally, Erwin (2004,p.40) illustrates that trisyllabic words with a pronoun suffix can follow either the automatic stress rules or non-automatic one in that stress can be placed on the initial syllable or the syllable preceding the suffix, as in /'*ʔibinha* / or */ʔi'binha*/ ‘her son’.

Al-Khalesi (2001, p.16) explains that IA words contain one stressed syllable among the others, even though the words consist of one or more syllables, this is called a ‘stressed syllable’. According to certain rules, a stressed syllable is automatic and predictable. The stressed syllable is the syllable which contains a long vowel that occurs between two consonants (CVVC) such as the word */raah*/ ‘he went’ or two consonants at the end of the word preceding by one short vowel */ ṣaʕadd/* ‘he climbed’; stress occurs over the second syllable / *ʕadd/*. In words with two long syllables or more than two syllables, the stress falls on the last syllable or the syllable nearest to the end of the word.

The previous discussion on stress has revealed two types of stress in IA words. The automatic type of stress in which stress is put over the syllable depending on the phonological structure of the word. In other

words, the stress of an automatic type is predictable from the consonants-vowels arrangement. However, the stress of the non-automatic type depends on the grammatical structure of words. In this type, stress occurs in a certain number of classes; it is determined by several grammatical features that characterize each class (Erwin, 2004, p.72).

The whole matter of stress in IA in general and the Iraqi variants as a whole needs further investigation. Although a large number of studies on IA, especially studies on the morphological, syntactic, and phonological levels have been made, there is no satisfactory metrical description of the stress system of Iraqi variants except Al.Abdely's study on HIA.

Al.Abdely (2011, p.379) studies the stress patterns of lexical words containing only four syllables. He applies four parameters of metrical theory: quantity-sensitivity, feet boundedness, feet directionality, and extrametricality to assign stress placement in HIA lexical words (See 2.4.1.1).

3.4 Nursery Rhymes: History, Age, and Function

Nursery rhymes are a type of literature. It is the first part of the literature that children encounter. Nurseries are characterized by certain features such as being melodic (Kroupova, 2014, p.12). Lederbuchova (2002, p.296), cited in Kroupova, (2014, p.12), defines nursery rhymes as "a genre of oral literature at first and later developed into an artificial genre aimed for children. It can have religious and magical functions". Nursery rhymes are constituted by unnamed outhers; the verses of the nursery are extremely rhythmic, firmly rhymed, and desirable by children (Temple, Martinez, and Yokota (2011, p.171) cited in Sayakhan and Bradley (2019, p.45)).

Nursery rhymes originated before the 1600s. The oldest rhymes relate to oral literature. They are transmitted orally from one generation to another. It is believed that nursery rhymes are not produced for children. However, they are associated with children's everyday life. They are recited at school, home, street, and elsewhere (Sayakhan and Bradley, 2019, p.45). Nursery rhymes are of different types; lullabies, ballads, war songs, folksongs, etc. (Dufter, 2011, 241). Lullabies are described as sleep songs while the other types of nursery rhymes are described as a working song (Zip et al. (2005, p.1138) cited in Sayakhan and Bradley (2019, p.45)).

Regarding the nursery rhymes' publications, the first work on nurseries appeared in (1774), named Tommy Thumb's pretty songbook (Opi and Opi (1997, p.29) cited in Kroupova (2014, p.14)). Then, a collection of Mother Goose's Melody was revealed in (1780). Research on nursery rhymes started with the spread of 'the nursery rhymes of England' in (1842), 'Popular Rhymes and Nursery Tales' in (1849), and 'Oxford Dictionary of Nursery Rhymes' by Lona and Peter Opi (Kroupova, 2014, p.14).

Wainwright (2004,p.57) states that poetic language is characterized by metaphor, imagery, and words with rich sounding. Such features can also be found in prose. But what characterizes poetry is the line. Hobsbaum (1996, p.2) explains that a line of verse is formed by repeating each foot several times. The line becomes longer when the feet are repeated more times. Many elements can distinguish the poetic line; rhyme, rhythm, and meter. Lederbuchova (2002, p.290), cited in Kroupova (2014, p.15), defines rhyme as "an acoustical consonance of a group of syllables at the end of verses". Rhythm and meter are interchangeable and confused concepts. While rhythm indicates the general sense of the movement of

the sound of the poem through the whole or in part of its length, meter in a specific way indicates a set of rhythmic pattern which is repeated line by line as in (Wainwright,2004,p.58):

Hickory dickory dock,

The mouse ran up the clock

Gonzalez (2016, p.15) contends that meter is the second musical feature that tends to count beats. More precisely, meter refers to the way of grouping beats together. Berry (1976), cited in Gonzalez (2016, p.15), says that the analysis of metrical structure identifies three factors: pattern of the metrical unit, weak-strong components of the units, and the proportional interrelation.

Wainwright (2004, p.59) classifies meter into four elements depending on what they count:

1. Syllable: it refers to the sound segments which constitute individual words (syllabics).
2. Quantity: it refers to the length of different syllables (quantitative).
3. Beats: they refer to the placement of stress on various syllables in the normal patterns of speaking (accentual or strong-stress).
4. Stressed and unstressed syllables number or pattern (accentual-syllabic or stress-syllabic).

Sayakhan and Bradley (2019, p.48) add that the story of the nursery rhymes reveals setting, plot, and characters immediately and easily without details as in:

Ding, dong, bell,

Pussy's in the well.

Who put her in?

Little Johnny Flynn

However, Wainwright (2004, p.62) illustrates that each quantitative meter is composed of a series of metrical feet. A Foot is ‘‘a distinctive arrangement of short and long syllables’’ (Wainwright, 2004, p.63). Wainwright (2004, p. 63) mentions that Metrical foot is divided into five types:

1. Iamb: it indicates one short syllable and one long syllable. Iamb foot is notated as ˘ ¯.
2. Spondee: it denotes two long syllables. Spondee foot is notated as ¯ ¯.
3. Trochee: it refers to one long and one short syllables. Trochee foot is notated as ¯ ˘.
4. Dactyl: it indicates one long syllable and two short syllables. Dactyl foot is notated as ¯ ˘ ˘.
5. Anapest: it refers to two short syllables and one long syllable. Anapest is notated as ˘ ˘ ¯.

A poetic line consists of several types of feet. The lengths of poetic lines are given Latin names. These names are given below (wainwright, 2004, p.63):

1. Monometer: it refers to the poetic line with one foot.
2. Dimeter: it denotes that the poetic line has two feet.
3. Trimeter: it refers to the line with three feet or three stressed syllables.
4. Tetrameter: it indicates that the line has four feet.
5. Pentameter: it denotes that the line contains five feet.
6. Hexameter: it indicates that the line has six feet.

Bodden (2010, p.16), cited in Sayakhan and Bradley (2019, p.50), states that nursery rhymes consist of a wide area of feelings such as pleasure, sorrow, anxiety, passion, etc. Regardless of the seriousness of nursery rhymes, the majority of them are delightful. They may tell real stories

about real people and actual things. Others tell stories about fictional people and impossible actions as in ‘the caw jumped over the moon’ (Bodden, 2010, p.17). They also contain nonsense words as in ‘diddle, diddle’ in the following nursery rhyme (Sayakhan and Bradley, 2019, p.49):

Hey, diddle, diddle!
The cat and the fiddle.

The cow jumped over the moon;

The little dog laughed

To see such sport, and the dish run away with the spoon.

As mentioned previously, nursery rhymes are melodic. In several countries, nursery rhymes are regarded as ritual texts. They are recited in the form of a song or maybe spoken. Each nursery rhyme has a metrical structure, whether nurseries across languages have the same metrical pattern or not, over time the universality of metrical patterns becomes the concentrate of several types of research. For instance, Dufter (2011, p,242) focuses on comparing the metrical patterns of several rhymes (See 2.4.2). Burling (1966, p.1418), in investigating the similarities and differences of the metrics of children's verse across language, illustrates that:

> *Nursery rhymes in many languages consist of verses of four lines, and each line has four major ‘‘beats’’. The beats are spaced evenly in time and are usually marked by syllables with stress or with some other phonological distinction that sets them off from surrounding syllables but rests occur in a few beat positions. Each language has its special characteristics within this general pattern, but the similarities between languages seem greater for nursery rhymes than for more elaborate forms of poetry. It seems*

difficult to attribute the cross-linguistic similarities to anything except our common humanity.

3.5 IA Nursery Rhymes

The oral tradition, in the Arab world, is considered as a consciousness expression and collective fiction. The oral tradition for Arabs achieves two purposes: firstly, it supplies entertainment to the listeners. Secondly, it makes a response to cultural, social, and religious needs (Toprak, 2008, p.107). Finnegan (1992, p.5), cited in, Allison (2001, p.12), states that determining a text as 'oral' may be meant either spoken (unwritten) or verbal. In general, the oral literature or verbal art such as songs, or poems, may be formulated, transferred, performed, or all three orally (Allison, 2001, p.12). On the other hand, the term 'tradition' means ''something which is handed down from one person to another, either old or believed to be old'' (Allison, 2001, p.13). For instance, most of the works which have been gathered by folklorists are classified as 'traditional' because they are received from somebody else (Allison, 2001, p.13). In describing the oral tradition in Kurdistan, Allison (2010, p.132) illustrates how different types of oral literature occupied rural life. In the past, it is easy to hear a folk-tale uttered, or a song sung at a village wedding.

The Arab world includes many dialects. Up to more recent times, these dialects are not studied systemically. Consequently, there are no systemic studies on Arabic oral literature, including children's folk songs. Before the sixties of the 20th century, there were no collecting or recording works (Lestaric, 2006, p.4).

Mohseni (2008) believes that oral literature is a type of folklore. The term folklore consists of two terms 'folk' and 'lore', and indicates 'common knowledge'. It also refers to the aesthetic aspects included within a shared culture. The term 'Al-Turath ul-sha'abi'is used in the Arabic language to refer to shared knowledge which includes knowledge of folk literature such

as ‘al-Adab ul-sha’abi’. ‘Al-Adab ul-Darij’ is also a term used in oral literature which indicates ‘popular literature’. ‘Al-Adab ul-Darij’ also refers to the language which is used in this field, i.e. the local language or ‘al-logha al-darijah’. He adds that oral literature refers to the transmission of information which happens orally.

https://www.magiran.com/paper/2038111?lang=en 2020/4/8

The most ancient type of traditional folk is lullabies, Iraqi Arabs are famous for this type of literature. The musical characteristics are linked with lullabies (Lestaric, 2006, p.5). Lullabies are sung to children while they are in the cradle. The importance of lullabies stems from being the first type of literature and music which makes the child in touch with his mother tongue (Lestaric, 2006, p.6). The verses below are an example of an IA lullaby that used to be uttered by a mother to her child (Lestaric, 2006, p.12):

دللول يالولد يبني دللول	lully, my boy, lully
يمه...عدوك عليل وساكن الچول	mommy, your enemy is weak and lives in the desert

There is no specific time that can be marked as the very beginning of oral literature in the Arabic world in general, and in Iraq in particular, but it can be concluded that literature is as old as humankind. The previous paragraph discusses a special type of an IA nursery rhymes, but this type is sung to Iraqi children while they are in the cradle until two years old mostly. Children encounter other types of nursery rhymes when they grow up. Such types of nursery rhymes can be recited by children at school, street, and elsewhere. Additionally, the IA nursery rhymes are characterized by special rhythmic and metrical patterns. To the best of our knowledge, no attempt is made for studying the IA nursery rhymes. The following chapter sheds light on the metrical patterns of eight IA

nursery rhymes depending on the parameters and rules of H95 metrical theory to see:

1. The feet number within each line, in other words, stressed syllables number within each line.
2. The feet types within each line, or regular alteration types per stressed syllable with the number of unstressed syllables.

Chapter Four

The Metrical Structure of Eight IA Nursery Rhymes

4.1 Introduction

The present chapter presents a phonological analysis of the meter and rhythm of eight IA nursery rhymes. As such this chapter attempts to study the phonological aspects of the syllable patterns to show their role in assigning stress to eight IA nursery rhymes according to H95's metrical theory, the bracketed grid model. The analysis deals with identifying the stress patterns at the word level taking into consideration syllable quantity, foot inventory (foot construction), extrametricality, directionality, Priority Clause Principle, end rules in the light of the bracketed grid model of H95. The words in each nursery rhyme are transcribed according to a Dictionary of IA[1] which is edited by Ronald G. Walf, Karl Stowasser, and Beverly E. Clarity. Besides, the words are syllabified according to the syllables weight which is distinguished by Al.Abdely (2011,p.389)[2].

4.2 Data Analysis

The data of the present study which are represented by the chosen eight IA nursery rhymes are analyzed below:

1. Analysis of the first nursery rhyme: "Bali, ya Balbool" / *ba li ya bal buul* /

Balbool is an Iraqi swimming coach, he used to train children with a recited rhyme which begins with / *ba li ya bal buul* /and the children

[1] This dictionary follows a system of transcription identical to that system used by Wallace M. Erwin's book 'A Short Reference Grammar of Iraqi Arabic' which is the IA system of symbols used in the present study.

[2] Al.Abdely (2011, p.389) classifies the syllables in HIA into three types: light, heavy, and superheavy.

repeated after him */ba li* /. In (1933) during the period of King Ghazi, before the Second World War, in Berlin an incident occurred, according to which the Iraqi delegation which is headed by the artist Hafez Al-Droubi, participated in the olympic games held there. Upon the arrival of the Iraqi delegation with the other international delegations to Berlin in German football stadiums were the opening ceremony took place with the presence of the Nazi leader, Hitler, each delegation recited their national anthem, and Iraq did not have a national anthem at that time, so the Iraqi delegation were embarrassed a lot. AlDroubi addressed the situation and started reciting Balbool's rhyme and the team repeated after him.

بلي يا بلبول

/ ba li ya bal buul /[1]

Bali, ya Balbool!

بلي

/ba li/

Yes!

ما شفت عصفور

/maa Ši f i t ʿeaṣ f uur/

Did not you see a bird?

بلي

/ba li /

Yes!

[1] The words are transcribed into a form of syllable group.

ينگر بالطاسه

/ yin gur biṭ ṭaa sa/

Striking in a bowl?

بلي

/ba li /

Yes!

حليب وياسه

/ ح a lii bu yaa sa /

Milk and myrtle

بلي

/ ba li /

Yes!

على قبر تيتي

/ع a la qa bur tii ti /

On the grave of Titi

ياي ياي

/yaay yaay/

Yay yay

ما شفت حبيبي

/maa Ši ʃit ح a bii bi/

Did not you see my sweetheart?

ياي ياي

/yaay yaay/

Yay yay

This nursery starts with the disyllabic word */ba li/*, containing two light syllables. IA rules of assigning stress require stressing the first syllable because the word does not have one long vowel or a short vowel with two consonants after it (See 3.3.2). As a result, the present word gets the following stress pattern:(ـَ ' ـِ). In the light of metrical foot construction rules, only one foot is formed over the initial light syllable and the following light one, as shown below:

(X) ER/right
(X .)
ba li

In the figure below, WSP (word stress pattern) shows the stress pattern of the word */ ba li /,* line 0 indicates the foot layer, line 1 exhibits the word layer construction (End Rules Right), and line 2 represents the primary stress of the word:

Line 2 X
Line 1 (X)
Line 0 (X .)
WSP ـَ ـِ
ba li

Figure (4.1): The Bracketed Grid of the Word */ ba li /*

The second functional word */ya/* is a vocative particle. Al-Hawary (2011,p.317) states that يا */ya/* is an optional particle in that it can be omitted when it is followed by a proper noun. Moutaouaki (1989,p.143), cited in Al-Bataineh (2020, p.3) remarks that there are eight vocative particles mentioned by Arab grammarians but only three of them are used in Modern Arabic[1]. As a functional word, it is not stressed. In the present study, the notation symbol (**.**) indicates that the word is unstressed. */ bal buul* /, this word is composed of a sequence of heavy-superheavy syllables. In this disyllabic word, stress can locate on the final superheavy syllable. The (_ ⁼') is the stress pattern of the word. According to the stress rules which are stated by H95, the rightmost consonant is analyzed as invisible or extrametrical (See 2.3.4.2.3), as such two metrical feet are formed: one over the remaining heavy syllable, and the second over the initial heavy syllable, as displayed below:

(X) ER/right
(X)(X)
bal buu<l >
Line 2 X
Line 1 (X)
Line 0 (X)(X)
WSP _ ⁼
bal buu<l >

Figure (4.2):The Bracketed Grid of the Word / *bal bluu<l >*/

A poetic rhythm is established on the alteration of stressed and unstressed syllables (Al-Hindawi and Muzhir, 2016, p.15). Accordingly, this alternation produces different foot types, the names of each metric

[1]The */yaa, ʾay, ʾa* / are the only vocative particles used in Modern Arabic.

line are based on the number of feet in each line (See 3.4). The first line / *ba li ya bal buul* / is a dimeter line, structured from two rhythmic patterns: trochaic, notated as (¯ ˇ), and iambic, notated as (ˇ ¯). This line is followed by / *ba li* / a trochaic monometer rhythmic meter (¯ ˇ).

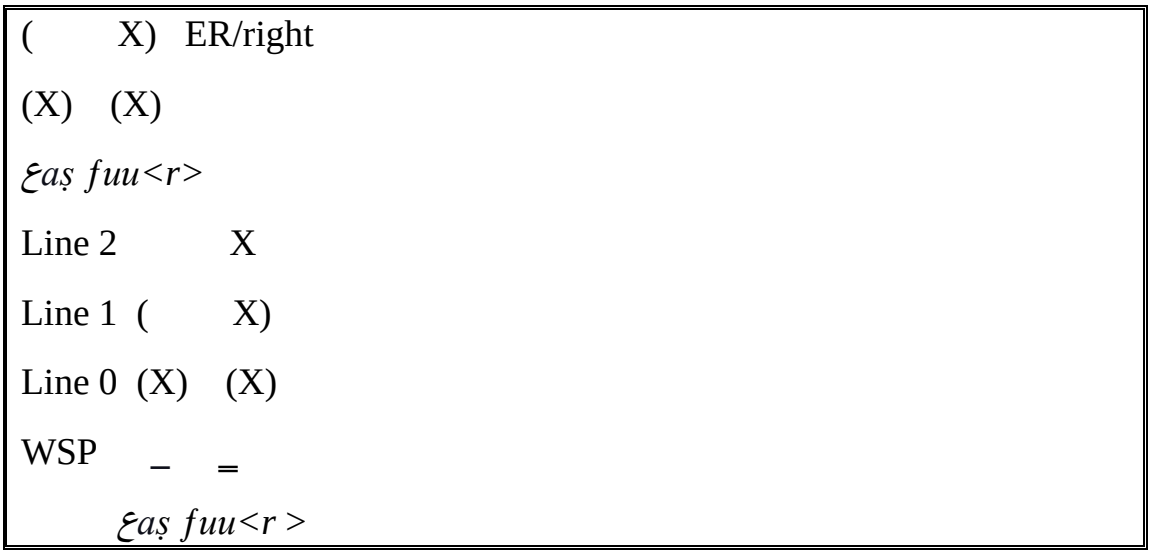
The following line starts with */maa/* which is an interrogative particle with one heavy syllable pattern. Since it is a functional word it is unstressed, producing the (**.**) stress pattern. */maa/* is followed by */Ši ʃit/*, which is a disyllabic word that starts with a light syllable and ends with a heavy syllable. Since the present word has no long vowel or a short one followed by a sequence of consonants (two consonants) so stress is put on the first light syllable as a result, the stress pattern of this word can be written in the following way: (◡ ' _). In applying the rules of constructing the metrical foot of this word, the final consonant of the word */Ši ʃit /* is designated as extreametrical. Only one foot is built over the initial light syllable and the remaining light syllable.

(X) ER/right
(X .)
Ši ʃi<t>
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP ◡ _
Ši ʃi<t>

Figure (4.3):The Bracketed Grid of the Word */Ši ʃi<t>/*

/ɛaṣ ʃuur/, this word is syllabified into two syllables; heavy and superheavy syllables. In assigning stress, the final superheavy syllable

/*ʃuur*/is stressed, resulting in the following stress pattern:(_ ⎓'). The final syllable is rendered extrametrical after applying the metrical rules, in such a way, two metrical feet are constructed: the first one is over the final heavy syllable, the second is over the initial heavy syllable.



Figure(4.4): The Bracketed Grid of the Word / *ɛaṣ ʃuu<r >* /

The present line */maa Ši ʃit ɛaṣ ʃuur/* is a dimeter line with two types of feet: trochaic (¯ ˇ) rhythmic meter, followed by an iambic (ˇ ¯). This line is followed by */ ba l i/* a trochaic monometer rhythmic meter (¯ ˇ).

The process of syllabifying the word / *yin ɠur* /, results in two heavy syllables. IA word stress features designate the initial heavy syllable to be stressed. The stress pattern is as follows: (_' _). Building a metrical foot for this word makes the final consonant extrametrical, hence one foot can form on the first syllable and the following syllable by applying the rules of foot construction.

(X) ER/right

(X .)

yin ɠu<r>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

yin ɠu<r>

Figure (4.5): The Bracketed Grid of the Word */ yin ɠu<r>/*

/ biṭ ṭaa sa /, the word is composed of the following syllable pattern: heavy-heavy-light syllables. Stress is received by the second heavy syllable. The word's stress pattern is written as follows: (_ _' ◡). Depending on metrical foot construction rules, two metrical feet are structured: one foot occurs on the pre-final syllable and the following syllable, whereas the second occurs on the initial heavy syllable:

(X) ER/right

(X) (X .)

biṭ ṭaa sa

Line 2 X

Line 1 (X)

Line 0 (X)(X .)

WSP _ _ ◡

biṭ ṭaa sa

Figure (4.6): The Bracketed Grid of the Word /*biṭ ṭaa sa* /

/ yin ɡur biṭ ṭaa sa / is a dimeter line with the following rhythmic pattern: dactylic pattern, notated as (¯ ˇ ˇ), followed by a trochaic pattern, notated as (¯ ˇ). This line is followed by */ ba l i* / a trochaic monometer rhythmic meter (¯ ˇ).

/ *ƹa lii bu* / is a trisyllabic word with a light-heavy-light syllable pattern. The pre-final syllable is the stressed syllable relying on IA word stress features. This word has the following stress pattern: (◡ _' ◡). Metrical rules construct a single foot over the pre-final syllable and the following syllable. According to the Priority Clause Principle, the first syllable is left unfooted because the degenerated foot is disallowed in all Arabic variants.

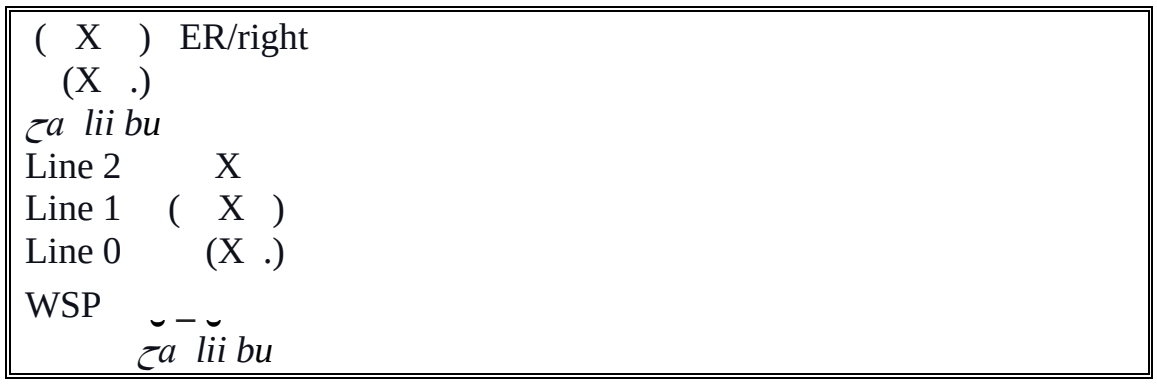


Figure (4.7): The Bracketed Grid of the Word / *ƹa lii bu*/

The process of syllabifying the word */ yaa sa* / produces two syllables with a heavy-light syllable pattern. Stress is received by the initial heavy syllable. This word has the following stress pattern: (_' ◡). Relying on metrical foot construction rules, one metrical foot can build on the initial syllable and the following one:

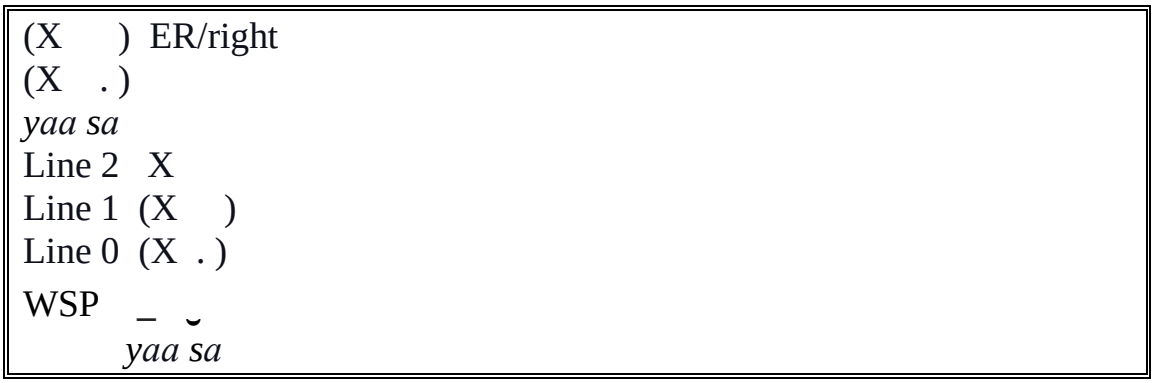


Figure (4.8): The Bracketed Grid of the Word */ yaa sa /*

The present line */ ʔa liibu yaa sa/* is constructed from an iambic dimeter rhythmic meter (˘ ¯). Also, this line has deviated since it ends with an unstressed syllable. It is followed by */ ba l i/* a trochaic monometer rhythmic meter (¯ ˘).

The next line starts with /ʕ *a la* / which is a functional word with two light syllables. It is an unstressed word resulting in the following (**. .**) stress pattern, followed by */ qa bur*/. This word */ qa bur*/ has a light-heavy syllable pattern. Stress goes to the first light syllable since this word does not have a long vowel or two consonants with a short vowel preceding the consonants, then the stress pattern is as follows: (˘ ' _). Metrical rules form one foot over the present word after making the final consonant of the second syllable extrametrical:

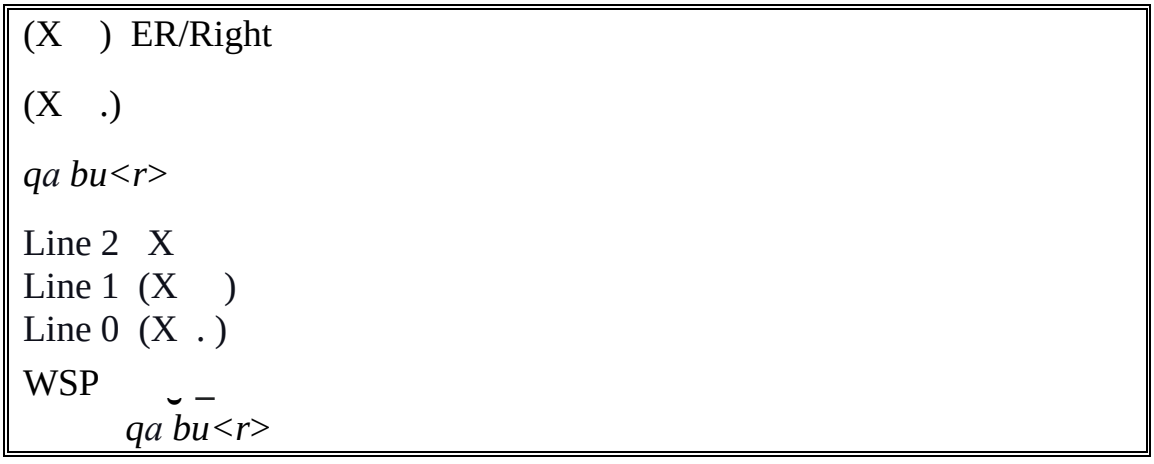


Figure (4.9): The Bracketed Grid of the Word */qa bu<r>/*

/tii ti /is a word with two syllables, having a heavy-light syllable pattern. Stress is put on the initial heavy syllable, resulting in the following stress pattern: **(_' ˘)**. Metrical rules of foot constructions build one foot over the initial heavy syllable and the second light syllable, as shown below:

(X) ER/Right

(X .)

tii ti

Line 2 X

Line 1 (X)
Line (X .)
WSP _ ˘
tii ti

Figure (4.10): The Bracketed Grid of the Word /*tii ti* /

This line is constructed from two trochaic dimeter rhythmic meters, notated as (¯ ˘). This line is followed by the line */yaay yaay*/ which is composed of an unstressed interjection */yaay* /, notated as (**. .**). Fradin (2003, p. 3), cited in Abdullah and Talib (2009, p. 90) defines interjections as " 'vocal gestures' expressing the speaker's mental state or action or attitude or reaction to a situation"[1]. The word */yaay/* is used to express that someone is very pleased about something.

The pre-final line begins with */maa/* which is an unstressed functional word as mentioned previously. Followed by */ Ši fit* / which is analyzed previously in the poetic line */maa Ši fi t ɛaṣ fuur/*. Then, the word / *ɛa*

[1] Concerning which part of speech interjections are related to, Arab grammarians have different opinions, some of them believe that interjections are a separate part of speech, some of them believe that interjections are a sup-part from another part of speech, others classify them as verbs, while some grammarians regard them as nouns (Abdullah and Talib, 2009, p. 90)

bii bi/ is composed of three syllables with a light-heavy-light syllable pattern. The (◡ _' ◡) is the word stress pattern. According to the Priority Clause Principle, the first foot is left unfooted. The metrical rules of foot construction build a single foot on the second syllable and the following light syllable:

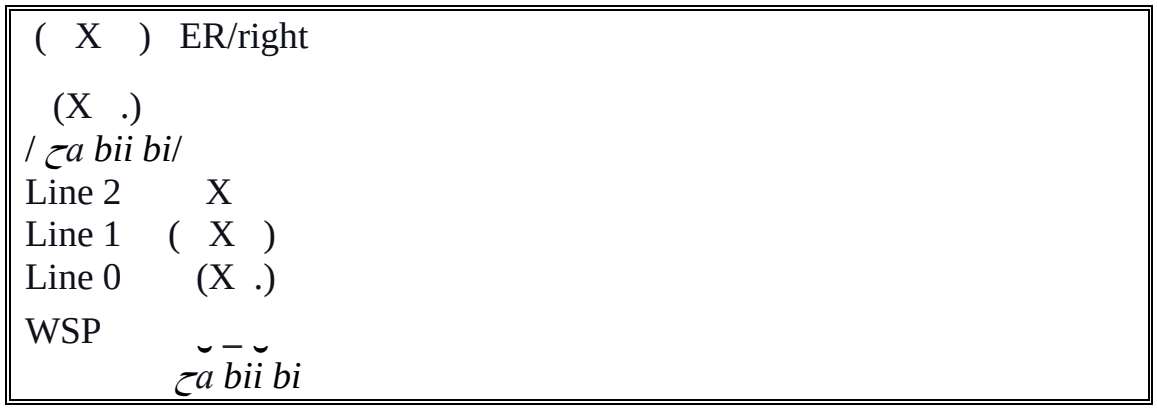


Figure (4.11): The Bracketed Grid of the Word / ڃ*a bii bi*/

Finally, the rhyme ends with two rhythmic patterns: trochaic, notated as (¯ ˘), and iambic, notated as (˘ ¯). Since it has two stressed syllables it is a dimeter line. Also, it has deviated since it ends with one unstressed syllable. The line as the previous one is also followed by the line */yaay yaay*/ which is composed of an unstressed interjection particle */yaay* /.

2. Analysis of the second nursery rhyme: "Hey, a bouquet" / *Šad da yaa wa rid/*

The second nursery rhyme to analyze is / *Šad da yaa wa rid* / rhyme "Hey, a bouquet". This nursery requires a group of children to connect their hands. Croupova (2014, pp.68-69) classifies nursery rhymes into different types such as lullabies, raddles, finger plays, etc. and one of these types is called 'Join hands'. He states that such a type of nursery rhyme is characterized by several activities such as holding hands together, making a shape of a circle, telling the rhyme with each other, and repeating a particular line together.

شده یا ورد

/ *Šad da yaa wa rid /*

Hey, a bouquet!

شده

/*Šad da* /

Bouquet!

من هي الورد

/ *min hiy yal wa rid* /

Who is the flower?

شده

/ *Šad da* /

Bouquet!

الورد (زنوبه)

/ *zan nuu bal wa rid* /

(Zannoba) is the flowers.

شده

/ *Šad da* /

Bouquet!

ضحكتها ورد

/ *ðiح kat ha wa rid* /

Her laughter is flowers!

شده

/ Šad da /

Bouquet!

گومتها ورد

/ ɢoo mat ha wa rid /

Her standing is flowers.

شده

/ Šad da /

Bouquet!

گعدتها ورد

/ ɢaع dat ha wa rid /

Her sitting is flowers.

شده

/Šad da /

Bouquet!

دورتها ورد

/doo rat ha wa rid /

Rounding as flowers.

شده

/ Šad da /

Bouquet!

کل احنه ورد

/ kul liح na wa rid /

All of us are flowers.

شده

/ Šad da /

Bouquet!

/ Šad da / is a disyllabic word, having a heavy and light syllable pattern. In the view of IA word stress features, stress is put over the first heavy syllable, producing the following word's stress pattern: (_' ـِ). The rules of metrical foot construction form one metrical foot over the word which is composed of heavy and light syllables, as shown below:

(X)	ER/right
(X .)	
Šad da	
Line 2	X
Line 1	(X)
Line 0	(X .)
WSP	_ ـِ
	Šad da

Figure (4.12): The Bracketed Grid of the Word /*Šad da* /

The second word is */yaa/* which is a monosyllabic word with a heavy syllable pattern since it is an unstressed syllable so the (**.**) is the word stress pattern. Syntactically, */yaa/* is a vocative particle. The third word is */ wa rid* / which is composed of two syllables. The syllable pattern of this word is a light-heavy syllable. Stress is put on the initial light syllable depending on IA word stress features, hence the stress pattern which is produced is as follows: (˘ ¯). By applying the metrical rules of foot construction, an individual foot is built over this word with two light syllables after making the final consonant extrametrical, as shown below:

(X) ER/right
(X .)
wa ri<d>
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP ˘ ¯
wa ri<d>

Figure (4.13): The Bracketed Grid of the word */ wa ri<d>* /

The first line in this nursery rhyme contains two stressed syllables with one-foot type: trochaic notated as ¯ ˘. Depending on the number of stressed syllables, it is a dimeter line. While the second line /*Šad da*/ is composed of one word with a trochaic monometer rhythmic meter.

The next line starts with the interrogative particle */min* / which is a monosyllabic word with a heavy syllable pattern. Syntactically speaking, the present word is not stressed since it is a functional word, producing the (**.**) stress pattern. Theoretically, such a type of question words or wh-

pronouns are identical to CA even though Wilmsen (2014, p.182) illustrates that interrogative particles in AI can take another form as in /*minu/* instead of */min huw wa*/ but in this line, the form of the question is similar to CA. Then, this poetic line is followed by another functional word /*hiy yal*/. This word is written as */hiy ya*/, but pronounced as /*hiy yal* / under the effect of syllable blending which requires the final syllable */ya/* of the present word to blend with the first syllable */ʾal*/ of the word */ʾal wa rid/*. The word */hiy yal*/ is a grammatical word with two heavy syllables. It is an unstressed word, producing the (**. .**) stress pattern.

The above line has deviated in that there is a sequence of unstressed syllables. Al-Hindawi and Muzhir (2016, p.20), mention that such a deviation is necessary to keep the rhythmical metering flow of the poem. This line has a trochaic monometer rhythmic meter, notated as ¯ ˇ, followed by /*Šad da/* which is composed of one word with a trochaic monometer rhythmic meter, notated as ¯ ˇ.

/ zan nuu bal / is a trisyllabic word with three heavy syllables. Stress is received by the pre-final syllable. The stress pattern is (_ _' _). According to metrical rules of foot construction, two feet can be built over this word: one foot is over the second syllable and the last light syllable, the other foot occurs on the initial heavy syllable after making the final consonant of the final syllable extrametrical, as shown below:

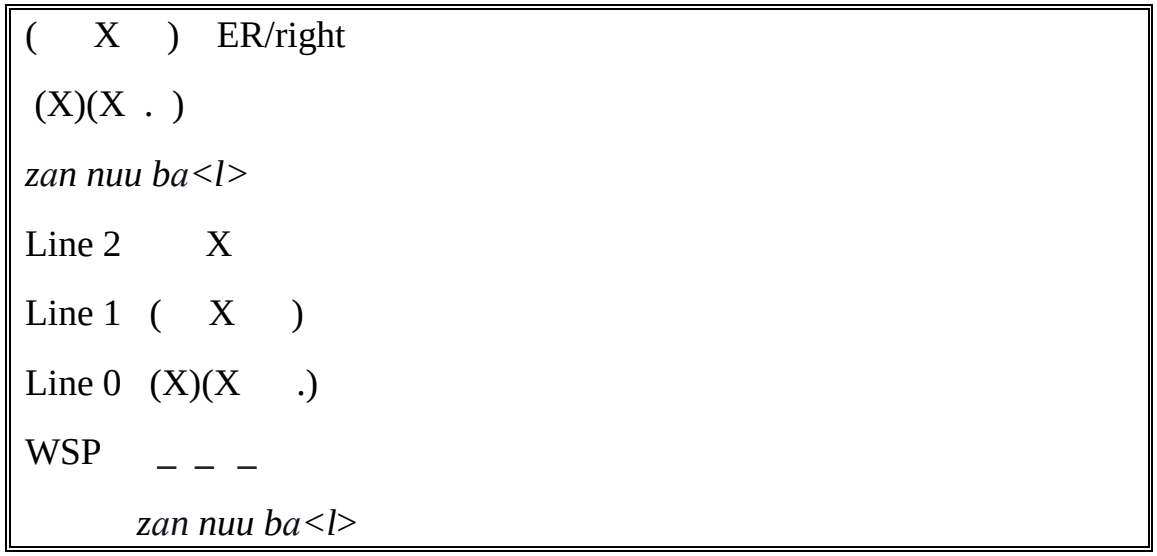


Figure (4.14): The Bracketed Grid of the Word / *zan nuu ba<l >*/

This line */zan nuu bal wa rid /* is built on two stressed syllables (dimeter) with a one-foot type which is the iambic rhythmic pattern notated as ˘ ¯ and ends with one unstressed syllable. It is followed by /*Šad da/* which is composed of one word with a trochaic monometer rhythmic meter, notated as ¯ ˘.

/ *ẓiɔ kat ha* /[1] is a trisyllabic word with a heavy-heavy-light syllable pattern. Stress is put on the initial heavy syllable depending on the automatic stress rules in IA, in the case of three-syllable words which often are composed of a stem with a pronoun suffix, stress can fall on the word depending on automatic or non-automatic stress rules (See 3.3.2). The word's stress pattern has the following form: (_' _ ◡). In the current word, two metrical feet are constructed: one foot can build on the initial syllable, whereas the second foot occurs on the following two last syllables, as illustrated below:

[1] Trisyllabic words with the pronoun suffix in the present nursery rhyme follow the automatic type of stress features.

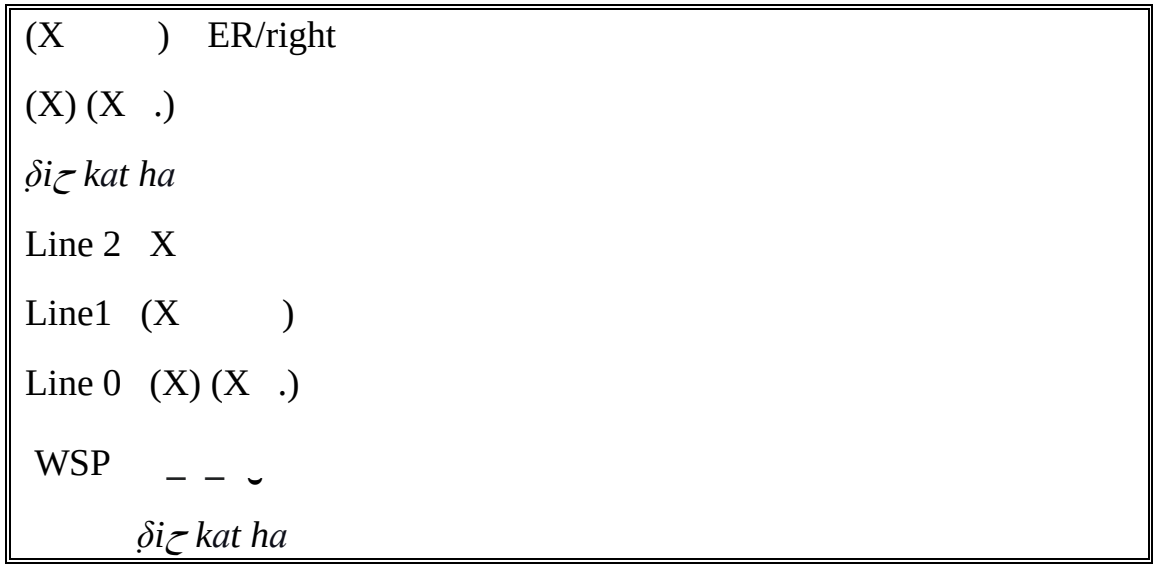


Figure (4.15): The Bracketed Grid of the Word /*ḍiʗ kat ha* /

This line */ḍiʗ kat ha wa rid/* is built on two types of meter. The word */ ḍiʗ kat ha /* is built on a dactylic rhythmic pattern, notated as ¯ ˇ ˇ, while */ wa rid/* is built on a trochaic rhythmic meter, notated as ¯ ˇ. Regarding the feet number, this line consists of two stressed syllables so it is a dimeter line, followed by */Šad da* / which is composed of one word with a trochaic monometer rhythmic meter, notated as ¯ ˇ.

/ɠoo mat ha / is a trisyllabic word with a heavy-heavy-light syllable structure. According to the consonant-vowel arrangements, the stress of the present word can fall on the first syllable (_' _ ◡). In this way of assigning stress, two feet are built over this word: one foot occurs over the initial syllable, whereas the other is over the pre-final heavy syllable and the following light syllable.

(X) ER/right
(X) (X .)

goo mat ha

Line 2 X

Line 1 (X)

Line 0 (X) (X .)

WSP _ _ ◡

goo mat ha

Figure (4.16): The Bracketed Grid of the Word / *goo mat ha* /

The present line */goo mat ha wa rid/* is a dimeter line. It also consists of two types of feet; the first foot has a dactylic rhythmic pattern, notated as ¯ ˘ ˘. The second one is formed from a trochaic rhythmic pattern, notated as ¯ ˘, followed by */Šad da/* which is composed of one word with a trochaic monometer rhythmic meter, notated as ¯ ˘.

/*gaɛ dat ha* / is a trisyllabic word, having the heavy-heavy-light syllable pattern. Stress is attracted by the initial heavy syllable, producing (_' _ ◡) stress pattern. Metrical foot construction rules form two metrical feet over the present word: the first foot is made over the initial heavy syllable, the other is made over the following heavy-light syllables, as illustrated below:

Figure (4.17): The Bracketed Grid of the Word /*ɡaɛ dat ha* /

The present dimeter line */ɡaɛ dat ha wa rid /* is composed of the following rhythmic patterns: a dactylic meter in */ ɡaɛ dat ha* /, notated as ¯ ˘ ˘, and a trochaic meter for the word */ wa rid* /, notated as ¯ ˘, followed by /*Šad da* / which is composed of one word with a trochaic monometer rhythmic meter, notated as ¯ ˘.

/doo rat ha/ is composed of three syllables with the heavy-heavy-light syllable pattern. Stress goes to the initial heavy syllable since it contains a long vowel, producing the following stress pattern: (_' _ ◡). Metrical rules of foot construction form two metrical feet: one occurs over the first syllable and the second foot occurs over the following sequence of heavy-light syllables*:*

(X) ER/Right

(X) (X .)

doo rat ha

Line2 X

Line 1 (X)

Line 0 (X) (X .)

WSP _ _ ◡

doo rat ha

Figure (4.18): The Bracketed Grid of the Word */doo rat ha /*

This line is built on two rhythmic patterns: a dactylic meter in */ doo rat ha* /, notated as ¯ ˇ ˇ, followed by a trochaic meter in the word */ wa rid* /, notated as ¯ ˇ. The line is also followed by /*Šad da* / which is composed of one word with a trochaic monometer rhythmic meter, notated as ¯ ˇ.

/kul liʓ na / is a trisyllabic word with a heavy-heavy-light syllable pattern. Stress is put on the initial heavy syllable, producing the (_' _ ◡) stress pattern. According to metrical rules, two metrical feet are constructed over this word: one foot occurs over the initial heavy syllable, whereas the second foot occurs over the penult heavy syllable and the following light syllable:

(X) ER/right

(X) (X .)

kul liح na

Line 2 X

Line 1 (X)

Line 0 (X) (X .)

WSP _ _ ◡

kul liح na

Figure (4.19): The Bracketed Grid of the Word */kul liح na/*

The poetic line */kul liح na wa rid/* is a dimeter, composed of two rhythmical patterns: dactylic which is notated as ¯ ˘ ˘, and trochaic which is notated as ¯ ˘, followed by /*Šad da* / which is composed of one word with a trochaic monometer rhythmic meter, notated as ¯ ˘.

3. Analysis of the third nursery rhyme: "Hela ya Romana" / *hee laa yaa rum maa na* /

According to the historical inheritance, the present nursery rhyme is associated with girls especially with girls of Baghdad. In this game and rhyme, the girls take a circulator form tiding the hands, one girl stays in the middle with selection her name and surrounded by the latest girls, then the girls in the middle starts reciting / *hee laa yaa rum maa na* / and the others repeat / *hee laa yum ma* /.

هيلا يا رمانه

/ hee laa yaa rum maa na /

Hela ya Romana,

هيلا يمه

/ hee laa yum ma /

Hela Mommy!

من هي الزعلانه

/ min hiy yal zaع laa na /

Who is she that is upset?

هيلا يمه

/ hee laa yum ma /

Hela Mommy!

زنوبه الزعلانه

/ zan nuu bal zaع laa na /

(Zannoba) is the one who is upset.

هيلا يمه

/ hee laa yum ma /

Hela Mommy!

/min hul li raa ðii ha/

Who is going to comfort her?

هيلا يمه

/ hee laa yum ma /

Hela Mommy!

ابو هه يراضيهه

/ ʔa buu hay raa ðii ha /

Her father is going to comfort her.

هيلا يمه

/ hee laa yum ma /

Hela Mommy!

صایغ تراچیهه

/ ṣaa yiġ ta raa Čii ha /

He will make earrings for her,

هیلا یمه

/ hee laa yum ma /

Hela Mommy!

محبس و گرداله

/ m iح ba su ġir daa la /

A ring and a necklace.

هیلا یمه

/ hee laa yum ma /

Hela Mommy!

The present nursery rhyme begins with the word */ hee laa /*, which is a disyllabic word with two heavy syllables. The final syllable is attached stress according to IA word stress rules which mention that stress puts on the syllable nearest to the end of the word and which has a long vowel. This word has a (_ _') stress pattern. Drawing on metrical foot construction rules, two feet are formed: one foot occurs over the final heavy syllable, and the second is over the initial heavy one:

(X)	ER/right
(X)(X)	
hee laa	
Line 2	X
Line 1	(X)
Line 0	(X)(X)
WSP	_ _
	hee laa

Figure (4.20): The Bracketed Grid of the Word */ hee laa /*

/hee laa/ is followed by the vocative particle */yaa/* which is a monosyllabic word with a heavy syllable, as a functional word */yaa/* is unstressed, producing the following unstressed pattern (.). / *rum maa na* /, is a word with three syllables; heavy-heavy-light syllable pattern. The pre-final syllable / *maa* / is attached stress. This word contains the following stress pattern: (_ _' ◡) Two feet are formed depending on metrical rules of foot construction: the first foot occurs over the second syllable and the last light syllable, the second foot occurs over the initial heavy syllable.

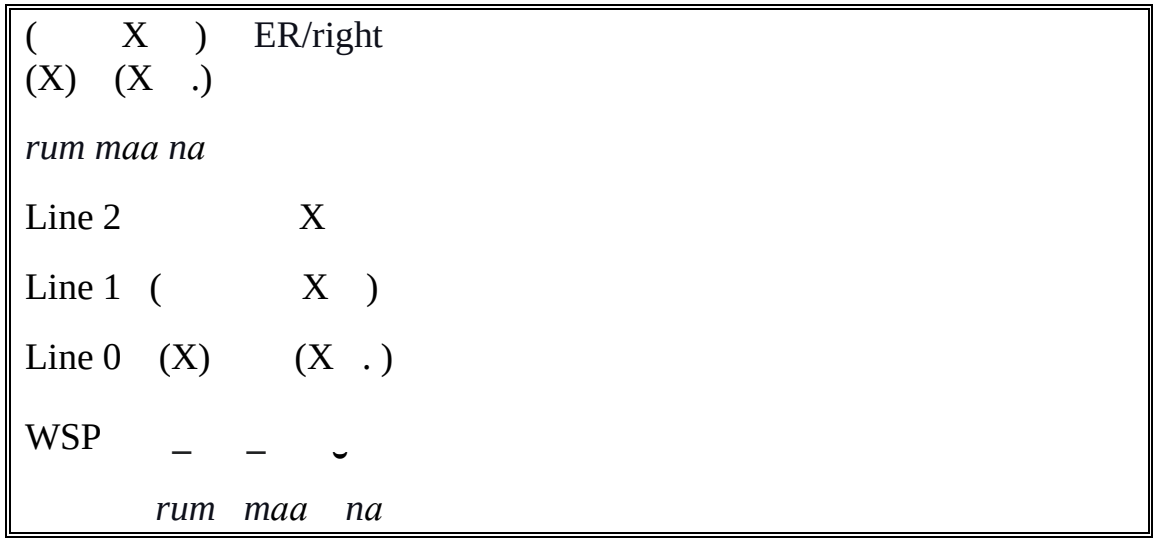


Figure (4.21): The Bracketed Grid of the Word / *rum maa na* /

This line */hee laa yaa rum maa na* / is a dimeter line, composed of the following rhythmic pattern: iambic, notated as ˘ ¯, and trochaic pattern, notated as ¯ ˘. This line contains a sequence of two unstressed syllables in */yaa rum*/.

/ *yum ma* / is composed of a heavy-light syllable pattern. The first syllable is stressed. The stress pattern of this word is (_' ◡). One metrical foot can build on the word by applying metrical rules of foot construction.

(X) ER/right

(X .)

yum ma

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ ◡

yum ma

Figure (4.22): The Bracketed Grid of the Word / *yum ma* /

The second line is structured according to a trochaic dimeter rhythmic meter, notated as ¯ ˇ.

The following line begins with the interrogative particle /*min* / which is composed of one heavy unstressed syllable, notated as (.), followed by */hiy yal* / is a third person singular pronoun. It is transcribed as */hiy ya/* but pronounced as */hiy yal* / under the effect of syllable blending. This disyllabic functional word is unstressed, notated as (. .). */zaع laa na* / is a trisyllabic word with a heavy-heavy-light syllable pattern. The pre-final heavy syllable receives stress. The stress pattern is (_ _'◡). The metrical rules construct two feet: one is over the pre-final heavy syllable and the following light syllable, and the second is over the initial heavy syllable.

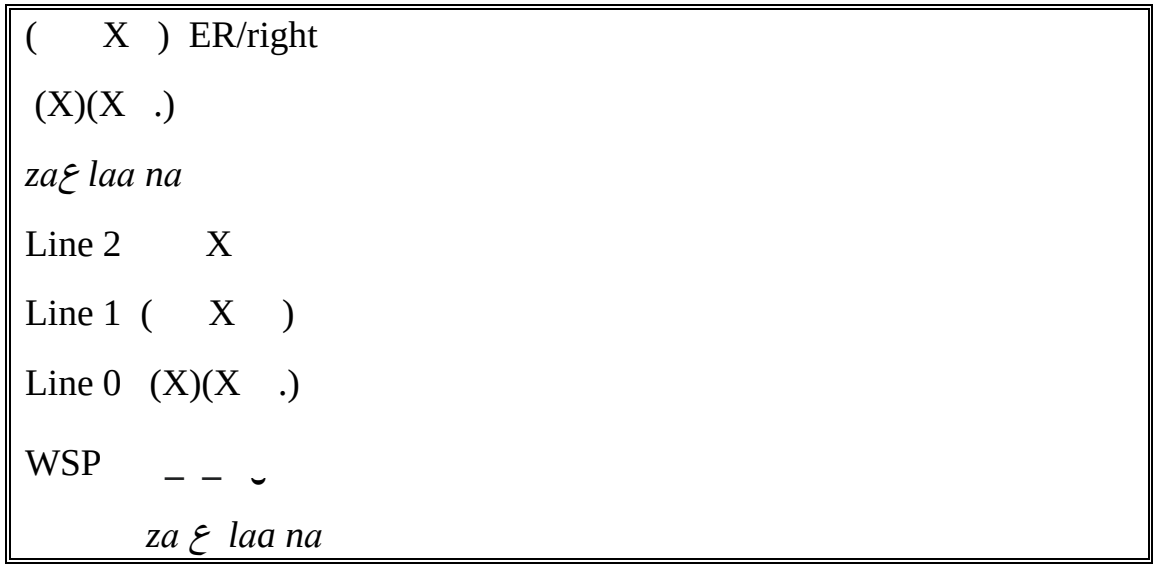


Figure (4.23):The Bracketed Grid of the Word */ za ع laa na /*

This line */min hiy yal zaع laa na/* contains one stressed syllable, as such, it is a monometer line with a trochaic rhythmic pattern, notated as ¯ ˘. Also, it has a sequence of three unstressed syllables in */min hiy yal zaع /*. It is also followed by a line that is structured from a trochaic dimeter rhythmic meter, notated as ¯ ˘.

/ zan nuu bal / is composed of three syllables: heavy-heavy-heavy syllables. The stress put on the syllable */nuu/*. The stress pattern is (_ _' _). Depending on the metrical rules of foot construction, two feet can be built over this word: one foot occurs on the pre-final syllable and the following syllable, and the second foot occurs on the initial syllable after making the last consonant of the last syllable extrametrical, as shown below:

Figure (4.24): The Bracketed Grid of the Word / *zan nuu ba<l >*/

/ *zan nuu bal zaɛ laa na* / is a dimeter line formed from two rhythmic patterns: iambic, notated as ˘ ¯, followed by a sequence of unstressed syllables, and ends with trochaic, notated as ¯ ˘. This line is followed by a line that is structured from a trochaic dimeter rhythmic meter, notated as ¯ ˘.

/min hul li/ is composed of the interrogative particle */min* /and the third person-singular pronoun */hul li/*. */min/* is a monosyllabic unstressed word notated as (.). */hul li/* is transcribed as */huw wa/* but pronounced as */hul li/* because of the blending process. */hul li/* is a disyllabic word with heavy-light syllables, it is also unstressed, having the following stress pattern: (. .). / *raa ẟii ha* / is composed of heavy-heavy-light syllables. Stress is received by the heavy syllable preceding the suffix (–*ha*) according to the non-automatic rules of word stress. The stress pattern is (_ _' ◡). Two metrical feet are built: one occurs over the pre-final heavy syllable and the following light syllable and the other occurs over the initial heavy syllable depending on the metrical rules of foot construction.

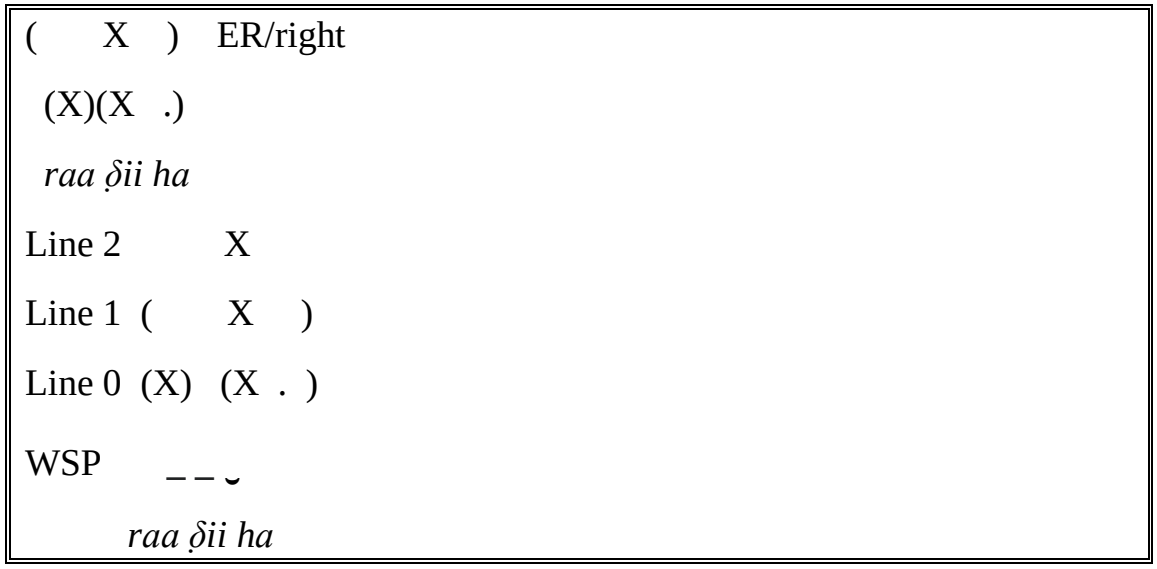


Figure (4.25): The Bracketed Grid of the Word */ raa ḍii ha /*

This line is constructed from a monometer trochaic rhythmic meter notated as ¯ ˇ. Besides, it has deviated since it is composed of a sequence of unstressed syllables. It is also followed by a line that is formed from a trochaic dimeter rhythmic meter, notated as ¯ ˇ.

/ʔa buu hay / is composed of three syllables; a light syllable at the first syllable with a sequence of two heavy syllables. The second heavy syllable *<u>/buu/</u>* is stressed because it contains the long vowel, then we have the following stress pattern: (◡ _' _). The metrical rules of foot construction can be formed a single foot on the pre-final syllable and the last syllable after designating the final consonant as extrametrical, while the syllable at the beginning of the word leaves unfooted to avoid constructing the degenerated foot.

Figure (4.26): The Bracketed Grid of the Word / *ʔa buu ha<y>* /

This line / *ʔa buu hay raa ɗii ha* / is a dimeter, with iambic-trochaic rhythmic patterns: iambic notated as ˘ ¯, while trochaic notated as ¯ ˘. It ends with a sequence of unstressed syllables. It is also followed by a line that is structured from a trochaic dimeter rhythmic meter, notated as ¯ ˘.

/ṣaa yiǧ / has a heavy-heavy syllable pattern. The initial syllable */ṣaa/* is stressed, therefore the stress pattern of this word is (_'_). Metrical rules render the final consonant extrametrical, then one foot can be formed on the first syllable and the last syllable.

(X) ER/right
(X .)

ṣaa yi<ġ>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

ṣaa yi<ġ>

Figure (4.27): The Bracketed Grid of the Word */ ṣaa yi<ġ>/*

/ ta raa Čii ha / is a tetrasyllabic word with a light-heavy-heavy-light syllable pattern. Stress is attached to the pre-final heavy syllable relying on IA non-automatic stress rules. The stress pattern of this word can be written in the following way (◡ _ _'◡). By applying metrical rules of foot construction, two feet are made; one is made over the prefinal heavy syllable and the following light syllables, the other is built over the second heavy syllable. According to the Priority Clause Principle, the first foot is unfooted because of the degenerated foot is forbidden in IA.

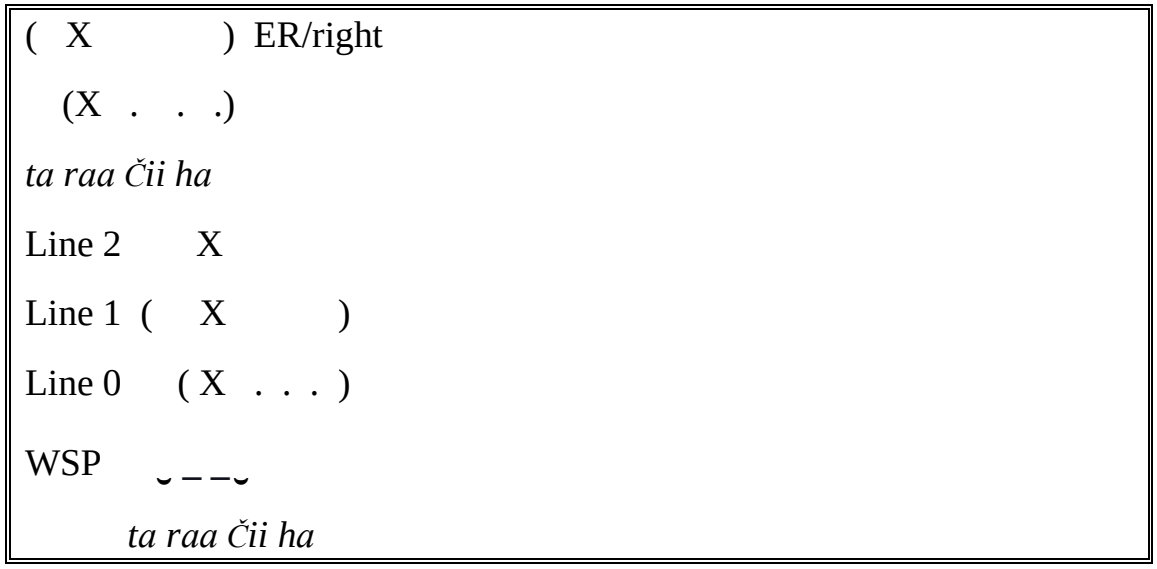


Figure (4.28):The Bracketed Grid of the Word / *ta raa Čii ha* /

This line */ṣaa yiǥ ta raa Čii ha /* is a dimeter line with a trochaic (¯ ˇ) rhythmic pattern, followed by a sequence of unstressed syllables, and ends with a trochaic dimeter rhythmic meter.

This word */ m iʒ ba su /* with a heavy-light-light syllable pattern is a disyllabic word. According to IA stress rules, the first syllable is stressed. The (_' ◡ ◡) is the stress pattern of the present word. The rules for forming metrical foot construct one foot over the initial heavy syllable and the following light syllables.

(X) ER/right

(X . .)

m iʓ ba su

Line 2 X

Line 1 (X)

Line 0 (X . .)

WSP _ ◡ ◡

m iʓ ba a su

Figure (4.29): The Bracketed Grid of the Word /*m iʓ ba su* /

/ *gir daa la* /, in the process of dividing this word into syllables, three syllables can be produced: heavy-heavy-light syllables. The syllable */daa/* is the stressed syllable according to the IA word stress rules, resulting in the following stress pattern: (_ _' ◡). Metrical foot construction rules with a left to right foot parsing build two feet: one is over the pre-final heavy syllable and the following light syllables, the other is over the initial heavy syllable.

(X) ER/right

(X)(X .)

gir daa la

Line 2 X

Line 1 (X)

Line 0 (X)(X .)

WSP _ _ ◡

gir daa la

Figure (4.30): The Bracketed Grid of the Word */gir daa la* /

/m iح ba su ġir daa la |

The line above is constructed from a dactylic dimeter rhythmic meter, notated as ¯ ˘ ˘, and an iambic rhythmic meter, notated as ˘ ¯. Additionally, it ends with one unstressed syllable. It is also followed by a line that is structured from a trochaic dimeter rhythmic meter, notated as ¯ ˘.

4.Analysis of the fourth nursery rhyme: "Hey bird, sing, sing! " */yaa ṭeer ġan ni ġan ni/*

/yaa ṭeer ġan ni ġan ni/ is considered as a seasonal nursery rhyme in that it is associated with festivals. What characterizes this rhyme is that it is not restricted by a particular activity, children may recite it standing, sitting or rounding.

يا طير غني غني

/yaa ṭeer ġan ni ġan ni/

Hey bird, sing, sing!

على جناحك طيرني

/ع laj naa حak ṭay yir ni/

Make me fly on your wing!

وديني للبساتين

/wad dii ni lil ba saa tiin/

Take me to the orchards

اشرب ماي اكل تين

/ʔaŠ rab ṃaay ʔaa kul tiin /

To drink water and eat fig!

اشرب ماي اكل تين

/ʔaš rab ṃaay ʔaa kul tiin/

To drink water and eat fig!

فرحني فرحة العيد

/far riʤ ni farʤatil ʕiid /

Make me happy as if living a festival joy!

لبسني ثوبي الجديد

/lab bis ni θoo bil ja diid /

Dress me a new dress!

كل ميريد بابا يريد

/ kul may riid baa bay riid /

Whenever he wants! Daddy wants

كل ميريد بابا يريد

/ kul may riid baa bay riid /

Whenever he wants! Daddy wants

The present nursery starts with the vocative particle */yaa /*. As a functional word, it is not stressed, notated as (.). */ṭeer* / is a monosyllabic word with a superheavy syllable. It receives stress naturally so it has the following stress pattern: (⎽'). Drawing on metrical rules of foot construction, the final consonant is designated as extrametrical, then a single foot is built over the remaining heavy syllable, as follows:

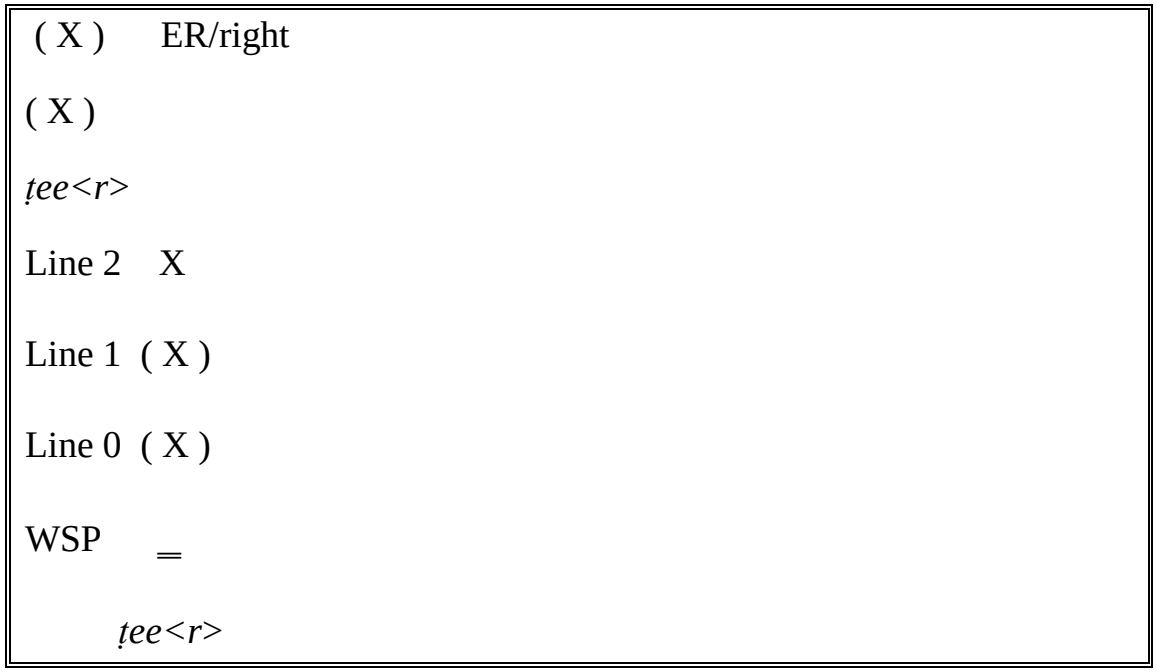


Figure (4.31): The Bracketed Grid of the Word / *ṭee<r>* /

/ *ġan ni* / is a disyllabic word with heavy-light syllables. The first syllable is stressed according to the rules of IA word stress, hence the stress pattern of this word is (_'◡). Metrical rules build an individual foot over the current word, as follows:

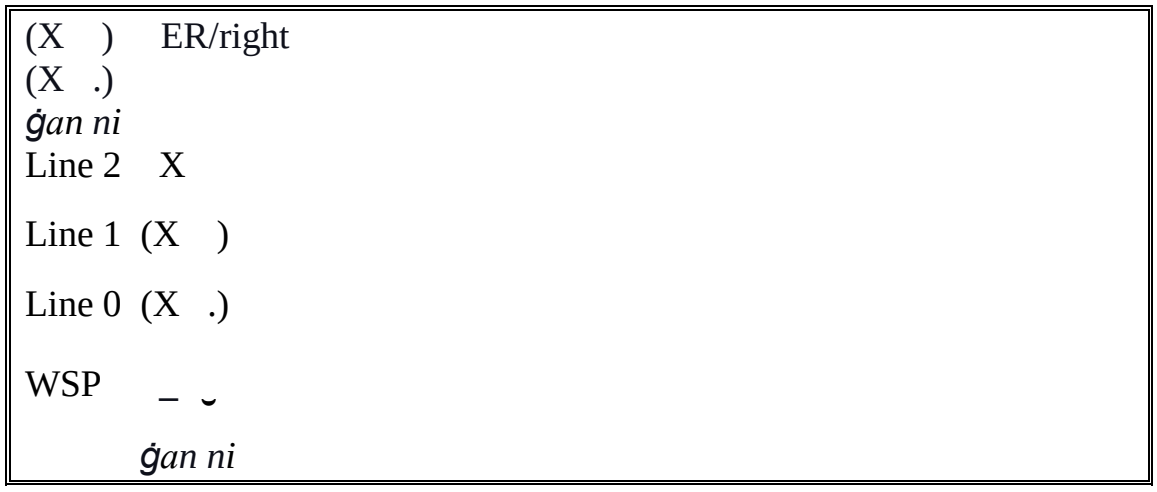


Figure (4.32): The Bracketed Grid of the Word /*ġan ni*/

This nursery starts with the following rhythmic pattern: spondaic foot, notated as ¯ ¯, followed by an iambic foot, notated as ˘ ¯. Depending on the number of feet in the line, it is a trimeter line. It is worth noting that

the present line has deviated since it begins with one unstressed syllable in */yaa /* and ends with one unstressed syllable in */ni*/.

The second line starts with the preposition */ɛa la/* which is pronounced as */ɛa laj*/ according to the effect of syllable blending, the (**..**) is the unstressed pattern for this word. */ naa ʗak* /, this word is composed of two syllables with a heavy-heavy syllable pattern. According to IA word stress rules, the first syllable */ naa* / is the stressed syllable, resulting in the following stress pattern: (_' _). In the light of metrical rules of foot construction, the final consonant is made extrametrical, then these rules form one foot on the word, as shown below:

(X) ER/right
(X .)
naa ha<k>
Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

naa ha<k>

Figure (4.33): The Bracketed Grid of the Word */ naa ha<k>/*

/ ṭay yir ni / is a trisyllabic word with heavy-heavy-light syllables. Stress is received by the initial heavy syllable. The stress pattern is (_' _ ◡). Two metrical feet are made over this word by applying the rules of metrical foot construction: one foot occurs over the initial heavy syllable, and the second occurs over the pre-final heavy syllable and the following light syllable.

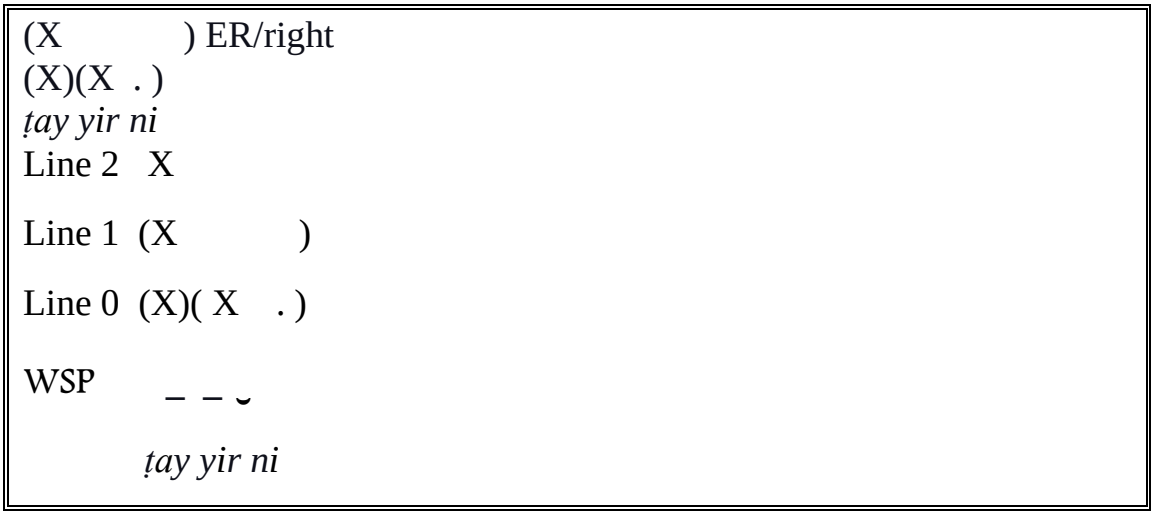


Figure (4.34): The Bracketed Grid of the Word */ṭay yir ni* /

To make a rhythmic description as accurate as possible, the line */ɛa laj naa ɛak ṭay yir ni*/ has deviated in that it starts with an unstressed syllable, followed by two rhythmic patterns: trochaic, notated as ¯ ˇ, and dactylic, notated as ¯ ˇ ˇ. As such, this is a dimeter line.

/ wad dii ni / is composed of three syllables with a heavy-heavy-light syllable pattern. IA rules of stress assignment require stressing the pre-final heavy syllable. As a result, the present word gets the following stress pattern: (_ _' ◡). In the light of metrical foot construction rules, two feet are formed over the present word: one foot occurs over the pre-final heavy syllable and the following light syllable, the other occurs on the initial heavy syllable, as shown below:

Figure (4.35):The Bracketed Grid of the Word */ wad dii ni /*

/ lil ba saa tiin / is a tetrasyllabic word with a heavy-light-heavy-superheavy syllable pattern. IA word stress rules assign stress to the final superheavy syllable, producing the (_ ◡ _ =') stress pattern. The last consonant is rendered extrametrical by metrical rules. Accordingly, three feet are formed: one occurs over the final remaining heavy syllable, the second occurs over the pre-final heavy syllable and the last foot occurs over the first syllable and the following light one.

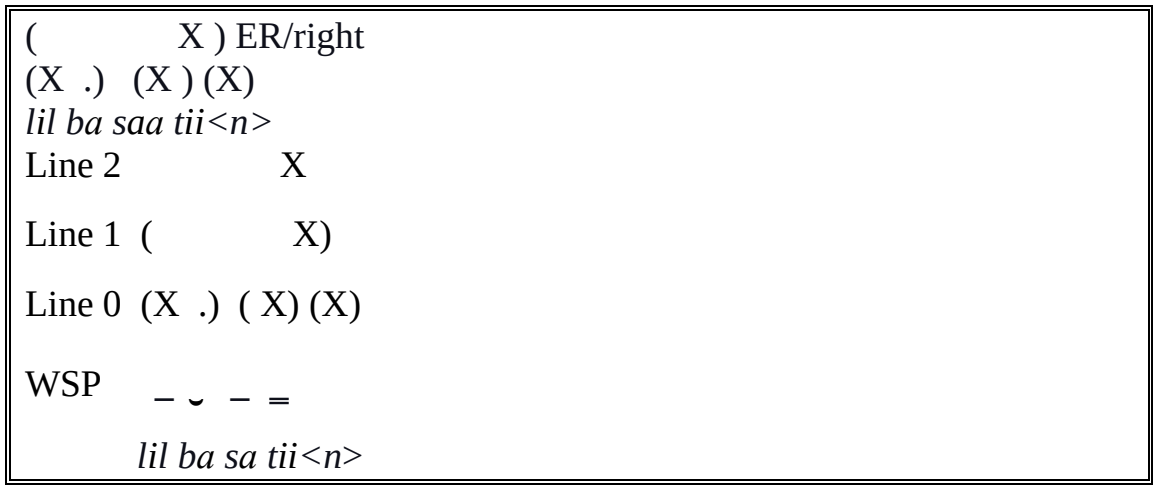


Figure (4.36): The Bracketed Grid of the Word */lil ba sa tii<n>/*

This line /*wa dii ni lil ba sa tiin* / is a dimeter line with one type of foot: iambic, notated as ˘ ¯, followed by the sequence of unstressed syllables in */ni lil ba/*, and ends with an iambic pattern.

/ *ʾaŠ rab* / has two heavy syllables. The initial heavy syllable is the stressed syllable. The stress pattern of this word is (_' _). Metrical rules make the final consonant extrametrical, as a result, one metrical foot can be made on the current word, as illustrated below:

(X) ER/right
(X .)
ʾaŠ ra<b>
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP _ _
ʾaŠ ra<b>

Figure (4.37): The Bracketed Grid of the Word */ʾaŠ ra<b>/*

/ṃaay /, this word is composed of one superheavy syllable which receives stress naturally, this results in the following stress pattern (_'). Metrical rules of foot construction make the final consonant extrametrical, as such one foot is formed over the remaining heavy syllable.

(X) ER/right
(X)
ṃaa<y>
Line 2 X
Line 1 (X)
Line 0 (X)
WSP _
ṃaa<y>

Figure (4. 38): The Bracketed Grid of the Word */ṃaa<y>/*

/ʔaa kul / is a disyllabic word with a heavy-heavy syllable pattern. In the light of IA rules of stress, the initial syllable is stressed, producing the (_' _) word stress pattern. One metrical foot can be constructed on the first syllable and the last syllable which becomes light after making the final consonant extrametrical by applying metrical foot construction rules.

Figure (4.39): The Bracketed of the Word /*ʔaa ku<l>* /

/ tiin / this word consists of a single syllable with a superheavy syllable pattern. Naturally, stress is received by this monosyllabic word, giving the following stress pattern (_'). Metrical rules render the final syllable extrametrical, hence producing one metrical foot over this word.

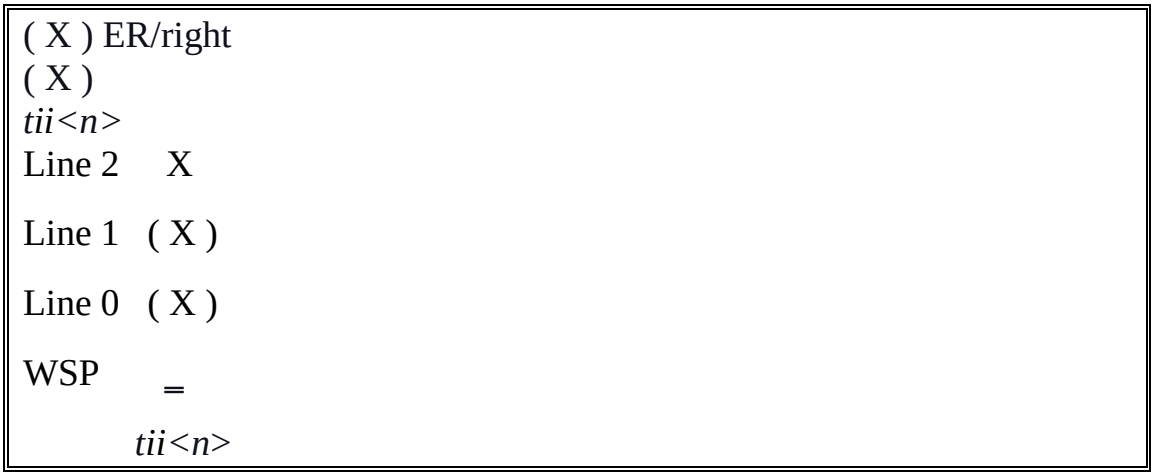


Figure (4.40): The Bracketed Grid of the Word */tii<n>*/

This line */ʔaŠ rab ṃaay ʔaa kul tiin/* is tetrameter, constructed from three rhythmic patterns: trochaic, notated as ¯ ˇ, spondaic, notated as ¯ ¯, and iambic, notated as ˇ ¯.

/ far riʓ ni / is a trisyllabic word with a heavy-heavy-light syllable pattern. Stress is received by the initial heavy syllable. The pattern of the word stress is (_' _ ◡). Two metrical feet are constructed for this word; one foot occurs over the initial heavy syllable, and the second occurs over the pre-final heavy syllable and the following light syllable.

(X) ER/right
(X) (X .)
far riʓ ni

Line 1 (X)

Line 0 (X) (X .)

WSP _ _ ◡

far riʓ ni

Figure (4.41): The Bracketed Grid of the Word */far riʓ ni/*

/far ʓa til / is a trisyllabic word with three syllables; a heavy, light, and heavy. IA rules of word stress are assigned stress to the first syllable. The stress pattern of this word is (_' ◡ _). The rules of metrical foot construction designate the final consonant of the final syllable as extrametrical, then one foot can be formed on the present word.

Figure (4.42): The Bracketed Grid of the Word /*far ʒa ti<l>*/

/ *ɛiid* /, this word has one syllable with a superheavy syllable pattern. Stress is attached to this syllable, producing (‗') word's stress pattern. The final consonant is made extrametrical, then one metrical foot is built over the current word according to metrical rules of foot construction.

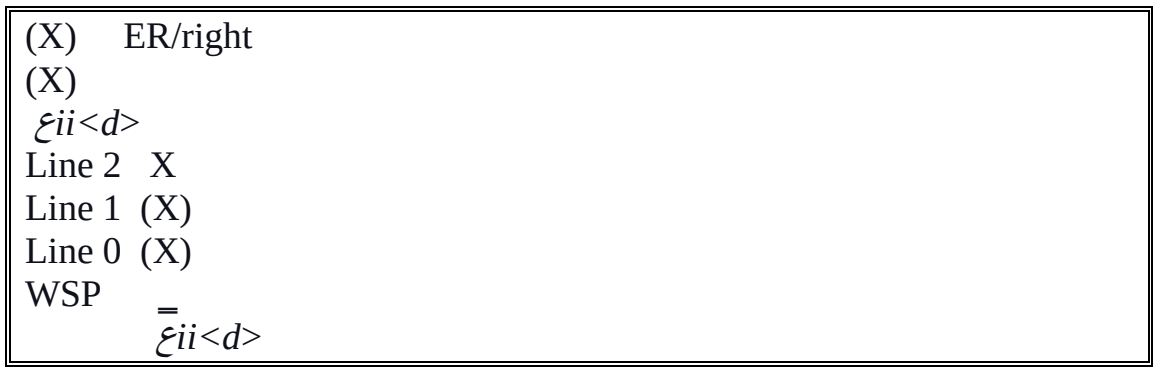


Figure (4.43): The Bracketed Grid of the Word / *ɛii<d>*/

/fa riʒ ni farʒatil ɛiid /

The line above is a trimeter line with two dactylic rhythmic patterns, in which a dactylic is notated as ¯ ˘ ˘, and ends with one stressed syllable.

/ *lab bis ni* / consists of three syllables with a heavy-heavy-light syllable pattern. Stress is put on the first syllable, producing the (_' _ ◡) word stress pattern. Two feet are formed on this word; one foot occurs

over the initial heavy syllable; the second occurs over the pre-final heavy syllable and the following light syllable.

Figure (4.44): The Bracketed Grid of the Word /*lab bis ni*/

/ *θoo bil* / is a disyllabic word with a heavy-heavy syllable pattern. Stress is received by the initial heavy syllable containing the long vowel. The pattern of stress for this word is (_ '_). One metrical foot occurs over the initial syllable and what follows it after designating the final consonant as extrametrical.

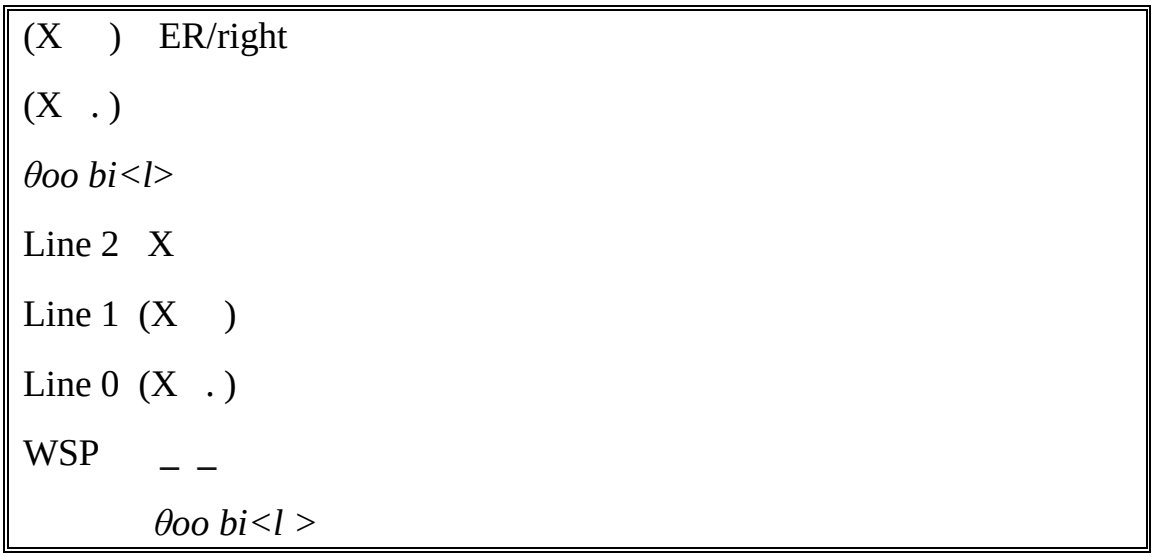


Figure (4.45): The Bracketed Grid of the Word /*θoo bi<l>*/

/ja diid / is composed of a light-superheavy syllable pattern. The final syllable is stressed, resulting in the (⏑ ⎓') word stress pattern. One

metrical foot occurs on the heavy syllable after making the last consonant extrametrical, the initial light syllable is left unfooted because this type of syllable (CV) is unable to build a metrical foot in all Arabic variants.

Figure (4.46): The Bracketed Grid of the Word */ ja dii<d>/*

/lab bis ni θoo bil ja diid /

The line above is a trimeter line with three types of feet: dactylic, notated as ¯ ˇ ˇ, trochaic, notated as ¯ ˇ, and iambic, notated as ˇ ¯.

Syntactically, */kul may/* is an adverb of time. It is composed of a heavy-heavy syllable pattern. Stress is received by the initial heavy syllable, giving in the following stress pattern: (_' _). The final consonant of the second syllable is rendered extrametrical depending on metrical rules of foot construction. One foot can be built on the first syllable and the last syllable.

(X) ER/right

(X .)

kul ma<y >

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

kul ma<y >

Figure (4.47): The Bracketed of the Word */ kul ma<y >/*

/riid / is a monosyllabic word with a superheavy syllable pattern. Stress is placed on this superheavy syllable, resulting in the following word's stress pattern: (_'). Metrical foot construction rules build one foot on the remaining heavy syllable after making the last consonant extrametrical, as follows:

(X) ER/Right

(X)

rii<d>

Line 2 X

Line 1 (X)

Line 0 (X)

WSP _

rii<d>

Figure (4. 48): The Bracketed of the Word */ rii<d>/*

/ baa bay / is a disyllabic word with a heavy-heavy syllable pattern. Since the first syllable contains a long vowel so it is the stressed syllable. The stress pattern for this word is as follows: (_' _). A single foot can be built

on this word, after marking the final consonant of the final syllable as extrametrical:

(X) ER/right
(X .)
baa ba<y>
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP _ _
baa ba<y>

Figure (4.49): The Bracketed of the Word / *baa ba<y>*/

This line / *kul may riid baa bay riid* / is a tetrameter line with the following rhythmic patterns: trochaic-spondaic-iambic. The trochaic pattern is notated as ¯ ˇ, the spondaic pattern is notated as ¯ ¯, and the iambic pattern is notated as ˇ ¯.

5.Analysis of the fifth nursery rhyme: "My sparrow flew out of my hand" */ʕaṣ fuu ri min ʾii di ṭaar/*

It is worth noting that nursery rhymes are not only recited for entertainment but also they are a valuable tool for learning. The nursery below is an obvious example of such a type of nursery rhymes. It seems that the unknown author who wrote these words knew that those who were children will understand the real meaning of these words one day. The last four lines are a clear example of betrayal even from those the one raise with his hand.

عصفوري من ايدي طار

/ʕaṣ fuu ri min ʾii di ṭaar/

My sparrow flew out of my hand.

عصفوري فوگ الاشجار

/ɛaṣ ʃuuri ʃoogil ʾaš jaar/

My sparrow rested on trees.

انزل انزل يا عصفور

/ʾin zil ʾin zil yaa ɛaṣ ʃuur/

Come down, little sparrow!

اكل الحب بليه كشور

/ʾik lil ħabib lay yak šuur/

Eat peeled seeds.

عصفوري چان زغير

/ɛaṣ ʃuu ri čaa niz ġay yir/

My sparrow was tiny.

ربيته على ايدي

/rab bee ta ɛa la ʾii di/

I raised it myself.

لمن كبر وتريش

/lam man ku bar wit ray yaš/

When it grew bigger and got covered with feathers,

گام ينگر بخدودي

/gaa mi nag gir bix duu di/

It used to click my cheek with its beak.

The first word in this nursery is /ɛ *aṣ ʃuu ri* /, a trisyllabic word with a heavy-heavy-light syllable pattern. The syllable /*ʃuu*/ is attached stress, producing the following stress patterns: (_ _' ˘). Metrical rules of foot construction place two metrical feet over this word: the first foot occurs on the heavy penult syllable and the following one, and the second foot occurs on the first syllable, as follows:

(X) ER/right
(X) (X .)
ɛaṣ ʃuu ri
Line 2 X
Line 1 (X)
Line 0 (X)(X .)
WSP _ _ ˘
ɛaṣ ʃuu ri

Figure (4. 50): The Bracketed Grid of the Word /ɛ *aṣ ʃuu ri* /

The previous word /ɛ *aṣ ʃuu ri* / is followed by the preposition */min/* which is an unstressed grammatical word and has the following unstressed pattern: (.). /ʔ*ii di* / is composed of two syllables with a heavy-light syllable pattern. The initial syllable is attached stress, producing the stress pattern (_' ˘). One metrical foot can be structured on this word according to metrical rules of foot construction, as follows:

Figure (4.51): The Bracketed Grid of the word /ʔii di /

/ *ṭaar* / is a monosyllabic word with a superheavy syllable pattern. This syllable receives the stress naturally. The stress pattern is (⎽'). Metrical rules render the final consonant extrametrical, and build only one foot over the remaining heavy syllable as shown below:

Figure (4.52): The Bracketed Grid of the Word /*ṭaa <r>*/

This line */ɛaṣ fuu ri min ʔii di ṭaar/* is constructed from the following rhythmic patterns: iambic, notated as ˇ ¯, followed by a sequence of unstressed syllables, then followed by a trochaic pattern, notated as ¯ ˇ,

and ends with one stressed syllable. The line is a trimeter line with three stressed syllables.

/*foo gil* / is a disyllabic word with a heavy-heavy syllable pattern. Stress is put over the first syllable /*foo*/. The (_' _) is the stress pattern of the word. Metrical rules build one metrical foot over the present word, after rendering the final consonant of the final syllable extrametrical.

(X) ER/right

(X .)

foo gi <l >

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

foo gi <l >

Figure (4.53): The Bracketed Grid of the Word / *foo gi <l >*/

/ *ʔaŠ jaar* / is a disyllabic word with the following syllable pattern: heavy and superheavy syllables. According to IA rules of word stress, the final superheavy syllable is stressed, resulting in the following stress pattern (_ _'). To build a metrical foot, the final consonant of the final superheavy syllable is rendered extrametrical according to metrical foot construction rules, and two metrical feet are built over this word; one occurs over the final remaining heavy syllable, whereas the other one occurs over the initial heavy syllable, as shown below:

(X) ER/right

(X) (X)

ʔaŠ jaa<r>

Line 2 X

Line 1 (X)

Line 0 (X)(X)

WSP _ =

ʔaŠ jaa<r>

Figure (4.54): The Bracketed Grid of the Word / *ʔaŠ jaa<r>*/

The present line */ɛaṣ fuuri foogil ʔaŠ jaar/* is trimeter, consisting of three stressed syllables with the following patterns of rhythm: two iambic patterns, notated as ˘ ¯, followed by anapestic foot, notated as ˘ ˘ ¯.

/ ʔin zil / is composed of two heavy syllables. The first syllable is stressed in the light of IA features of word stress, hence the stress pattern is (_' _). According to metrical rules of foot construction, the final consonant is made extrametrical, then an individual foot can be made on the present word, as shown below:

(X) ER/right

(X .)

ʔin zi<l >

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

ʔin zi<l >

Figure (4.55): The Bracketed Grid of the Word /*ʔin zi<l>*/

/yaa/ is a vocative particle, with a heavy syllable pattern. It is an unstressed word, producing the (.) unstressed pattern. */ɛaṣ fuur/* is composed of heavy and superheavy syllables pattern. In assigning stress placement, the syllable */fuu/* is stressed, resulting in the following stress pattern:(_ _'). The final consonant is designated as extrametrical after applying the metrical rules of constructing foot, as such, two metrical feet are constructed: the first one is over the final remaining heavy syllable, the second is over the initial heavy syllable.

(X) ER/right
(X) (X)
ɛaṣ fuu<r>
Line 2 X
Line 1 (X)
Line 0 (X) (X)
WSP _ _
ɛaṣ fuu<r >

Figure (4.56): The Bracketed Grid of the Word */ɛaṣ fuu<r >/*

/ʔin zil ʔin zil yaa ɛaṣ fuur/

The line above is a trimeter line with two trochaic feet, notated as ¯ ˇ, followed by one iambic foot, notated as ˇ ¯. Taking into consideration that */yaa/* does not influence the rhythmic pattern.

Concerning the syllable structure of the word */ʔik lil /*, it has two heavy syllables. In the present word, the first syllable is stressed according to IA stress rules, producing the stress pattern (_' _). The final consonant is made extrametrical depending on metrical foot construction rules. One foot occurs on this word, as shown below:

(X) ER/right

(X .)

ʔik li<l>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

ʔik li<l>

Figure (4.57): The Bracketed Grid of the Word / ʔik li<l> /

/ڃa bib / consists of two syllables with a light-heavy syllable pattern. The initial light syllable receives stress. The stress pattern can be written as follows: (◡' _). Metrical rules of foot construction make the final consonant extrametrical, then one metrical foot is built over the word, as follows:

(X) ER/right

(X .)

ڃa bi<b>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP ◡ _

ڃa bi <b>

Figure (4.58): The Bracketed Grid of the Word /ڃ a bi <b>/

/ lay yak / is composed of two syllables with a heavy-heavy syllable pattern. The initial heavy syllable is stressed depending on the IA word

stress rules. The stress pattern is (_' _). Metrical rules construct one foot over the initial syllable and the last one, after making the final consonant of the second syllable extrametrical.

(X) ER/right
(X .)
lay ya<k>
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP _ _
lay ya<k>

Figure (4.59): The Bracketed Grid of The Word / *lay ya<k>*/

/ *šuur* / is a monosyllabic word with a superheavy syllable pattern. Stress is received by the superheavy syllable, producing the following stress pattern: (_'). Metrical rules make the final consonant extrametrical so one foot is structured over this superheavy syllable.

(X) ER/right
(X)
šuu<r>
Line 2 X
Line 1 (X)
Line 0 (X)
WSP _
šuu<r>

Figure (4.60): The Bracketed Grid of the Word / *šuu<r>*/

/ʔik lil ʿa bib lay yak šuur/

The above line has a tetrameter pattern with the following rhythmic patterns: three trochaic patterns notated as ¯ ˇ. As mentioned previously, the rhythmic pattern is a combination of stress with unstressed syllables, so only a stressed syllable or only an unstressed syllable cannot construct the rhythmic pattern. The present line has deviated since it ends with one stressed syllable.

/ čaa niz / is composed of two heavy syllables. stress goes to the initial syllable which contains the long vowel */čaa /*. The stress pattern is (_' _). The final consonant is made extrametrical, one foot can be built on the initial syllable and the last one after applying metrical rules of foot construction.

(X) ER/right
(X)
čaa ni<z >
Line 2 X
Line 1 (X)
Line 0 (X)
WSP _ _
čaa ni<z >

Figure (4.61): The Bracketed Grid of the Ward */ čaa ni<z >/*

/ ġay yir / is a disyllabic word with a heavy-heavy syllable pattern. The first syllable is attached stress. The word's stress pattern is as follows: (_' _). The final consonant is designated as extrametrical depending on metrical foot construction rules. One foot can be built on the current word.

(X) ER/right

(X .)

ġay yi<r>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

ġay yi<r>

Figure (4.62): The Bracketed Grid of the Word / *ġay yi<r>/*

This line */ɛaṣ ƒuu ri čaa niz ġay yir/* is structured from three iambic patterns, notated as ˘ ¯. It has three stressed syllables, as such, it is trimeter in length. It has deviated since it ends with one unstressed syllable.

/rab bee ta / is a trisyllabic word with heavy, heavy, and light syllables. Stress is put over the syllable */bee/*, producing the following stress pattern: (_ _'◡). Two feet are built on the word's three syllables: the first foot occurs on the second heavy syllable and the following light one, whereas the other occurs on the initial heavy syllable.

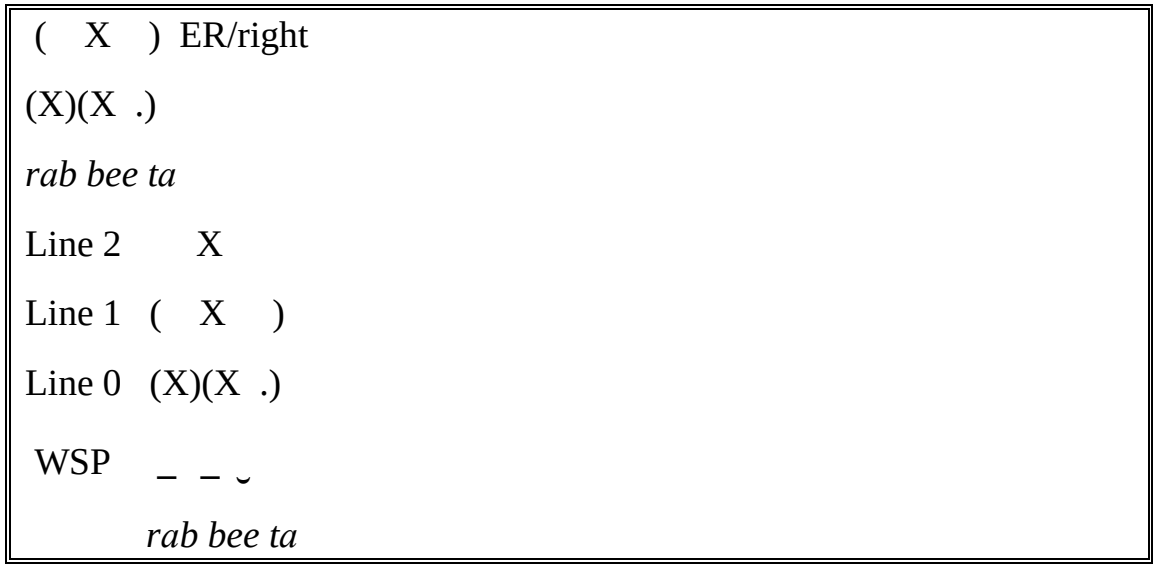


Figure (4.63): The Bracketed Grid of the Word */rab bee ta* /

/ʾii di / is preceded by the preposition /ع *a la* / which is a monosyllabic functional word, therefore it is not stressed, resulting in the following unstressed pattern: (. .). Then, */ʾii di* / is composed of two syllables with a heavy-light syllable pattern. The first syllable is stressed, producing the (_' ◡) stress pattern as it is analyzed in the first line */عaṣ ƒuu ri min ʾii di ṭaar/*.

This line */rab bee ta ع a la ʾii di/* is built on a dimeter line with the following rhythmic patterns: iambic rhythmic meter, notated as ˘ ¯, followed by a sequence of unstressed syllables, and ends with a trochaic rhythmic pattern, notated as ¯ ˘. The present line has deviated because it contains a sequence of unstressed syllables.

/lam man / is constructed from two heavy syllables. The first syllable is attached stress. For the present word, the stress pattern is (_' _). The final consonant is made extrametrical by applying the rules of metrical foot construction. One foot can be structured on the initial syllable and the last light syllable.

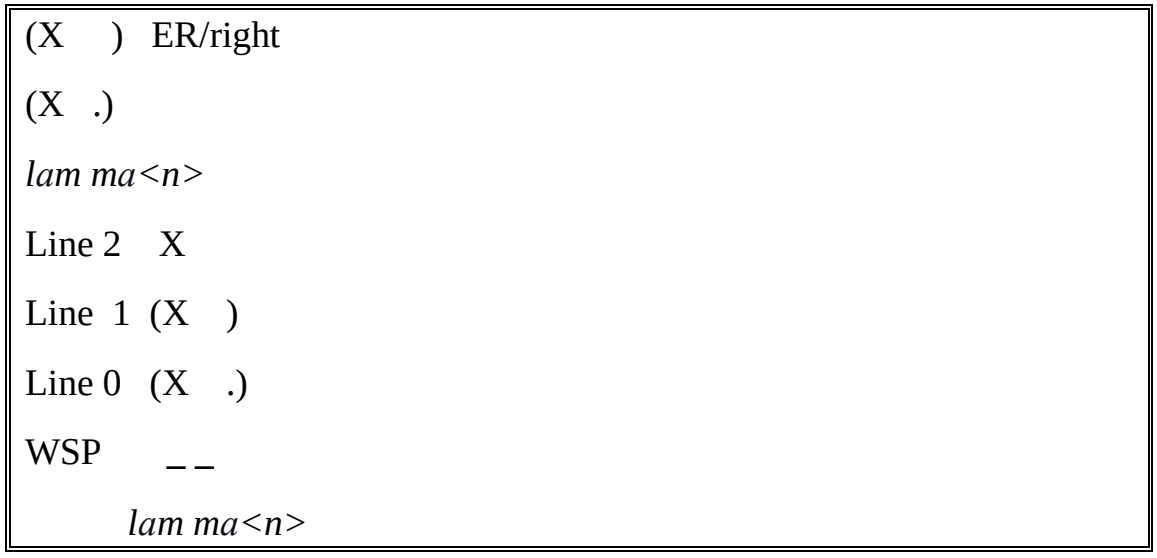


Figure (4.64): The Bracketed Grid of the Word */lam ma<n>* /

/ *ku bar/* is composed of two syllables with a light-heavy syllable pattern. The first light syllable is stressed. The (◡' _) is the word stress pattern According to the metrical rules of foot construction, one foot is built over the initial light syllable and the following light syllable after making the last consonant extrametrical.

Figure (4.65): The Bracketed Grid of the Word / *ku ba<r>*/

This word */wit ray yaŠ* / is composed of three syllables with a heavy-heavy-heavy syllable pattern. The stress is put on the initial heavy

syllable. The stress pattern for this word is (_' _ _). Metrical rules of foot construction make the final consonant of the last syllable extrametrical. Accordingly, two feet are structured: the first foot occurs over the initial heavy syllable and the following one is built on the pre-final syllable and the last syllable.

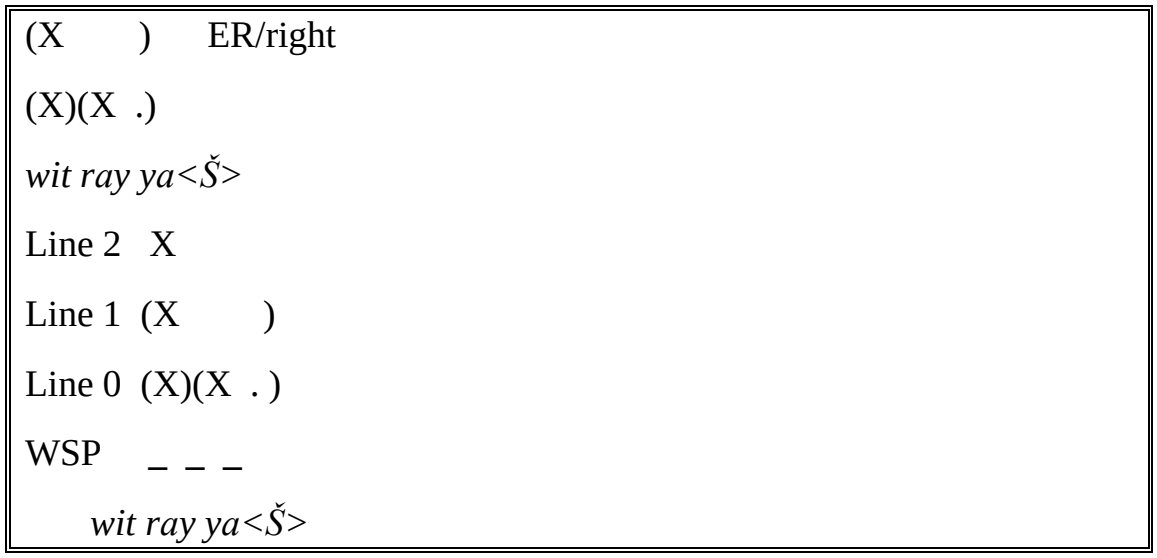


Figure (4.66): The Bracketed Grid of the Word */ wit ray ya<Š>/*

This line */lam man ku bar wit ray yaŠ/* is trimeter with two trochaic patterns and one dactylic. Trochaic is notated as ¯ ˇ, while dactylic is notated as ¯ ˇ ˇ.

/ɡaa mi / is composed of a heavy-light syllable pattern. The first heavy syllable is stressed. The stress pattern is (_ '◡). According to Metrical rules of foot construction, an individual foot can build over the initial syllable and what follows it.

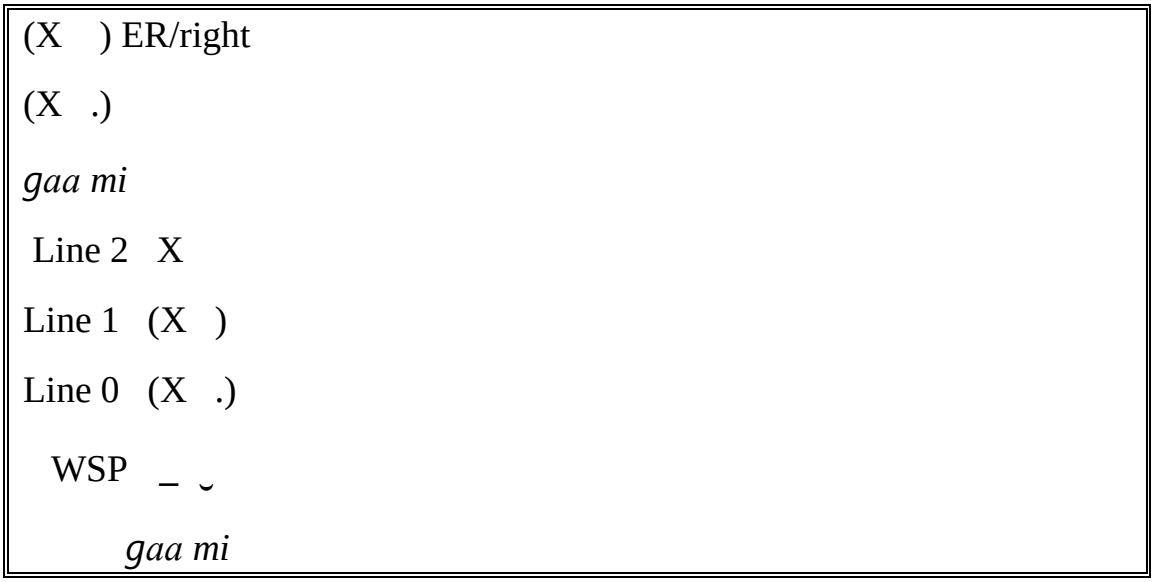


Figure (4.67): The Bracketed Grid of the Word / *gaa mi*/

/ nag gir / has a heavy-heavy syllable pattern. Stress is located over the initial heavy syllable. The pattern of stress is (_' _). Metrical rules of foot construction render the final consonant extrametrical, then one foot can be built on the initial syllable and the last syllable.

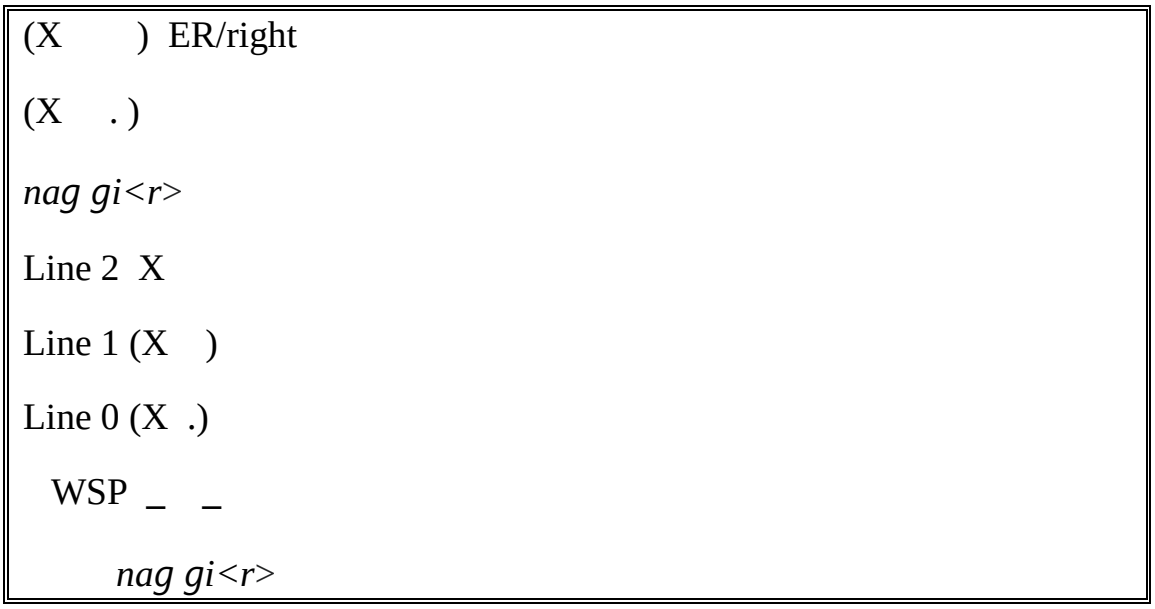


Figure (4.68): The Bracketed Grid of the Word */ nag gi<r> /*

/ bix duu di / is a trisyllabic word with heavy, heavy, and light syllables. Stress is put on the penult heavy syllable which results in the following

stress pattern: (_ _' ◡). Metrical rules establish two feet: one foot occurs on the pre-final syllable and the last light syllable, whereas the second is over the initial heavy syllable, as shown below:

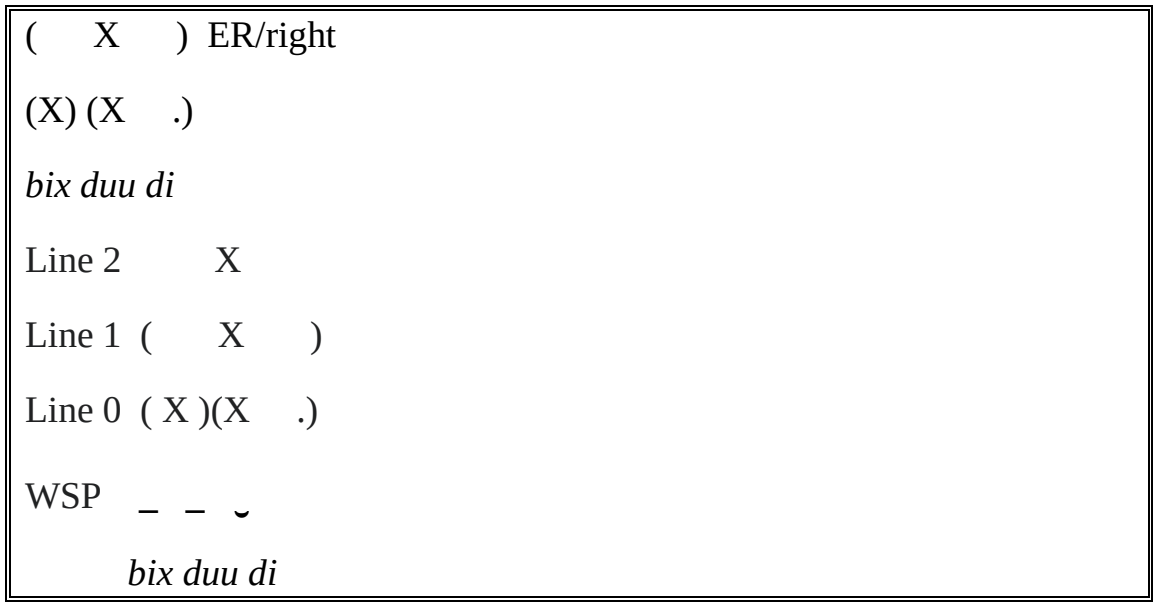


Figure (4.69): The Bracketed Grid of the Word /*bix duu di*/

/*gaa mi nag gir bix duu di/*

In the above trimeter line, there are two rhythmic patterns: trochaic which is notated as ¯ ˇ, followed by dactylic pattern, notated as ¯ ˇ ˇ and ends with trochaic.

6.Analysis of the sixth nursery rhyme: "Ladybird, ladybird" / *ġa zaa la ġaz zi loo ki /*

Mostly nursery rhymes are recited by Iraqi children while playing. / *ġa zaa la ġaz zi loo ki /* is one of the most common rhymes among boys and girls, they used to recite it near rivers. while jumping into the river children raise their voices in one tune:

غزاله غزلوكي

/ *ġa zaa la ġaz zi loo ki /*

Ladybird, ladybird

بالماي دعبلوكي

/bil ɱaay daɛ bi look i /

Trundling in the water!

گاعده على الشط

/ɡaaɛ da ع a laŠ Šaṭ/

sitting by the river

گاعده تمشط

/ɡaaɛ dat ti ma Šaṭ/

combing her hair

اجاهه نومي

/ ʔi jaa ha nuu mi /

Numi came to her,

گللهه گومي

/ ɡal lil ha ɡuu m i /

Asked her to stand up.

گلتله ما اگوم

/ ɡal lat la maa ɡuum /

She said: “I will never stand up”.

هذا حصاني

/ haa ða حi ṣaa n i/

This is my horse.

اشده و اركب

/ʔa Šid da war kab /

I pull it while riding,

على السكركب

/ع lil si kar kab /

And sit on the saddle,

سكركب البريه

/si kar ka bil bar riiy ya /

The land saddle!

لا تبچين عليه

/ laa tib Čiin ع a lay ya /

Never cry for me.

ابچي على حجولچ

/ʔib Či ع la juu liČ /

Cry for your anklets

حجو لچ بأربعميه

/juu liČ bar baع miiy ya/ح

Your anklets are for four hundred

/ġ*a zaa la* /, this word is composed of three syllables with a light-heavy-light syllable pattern. Stress is attached to the second heavy syllable. The (ـ'ـ) is the stress pattern of the present word. One foot is constructed over the second heavy syllable and the following light one

depending on the metrical foot construction rules. The first syllable leaves unfooted according to the Priority Clause Principle.

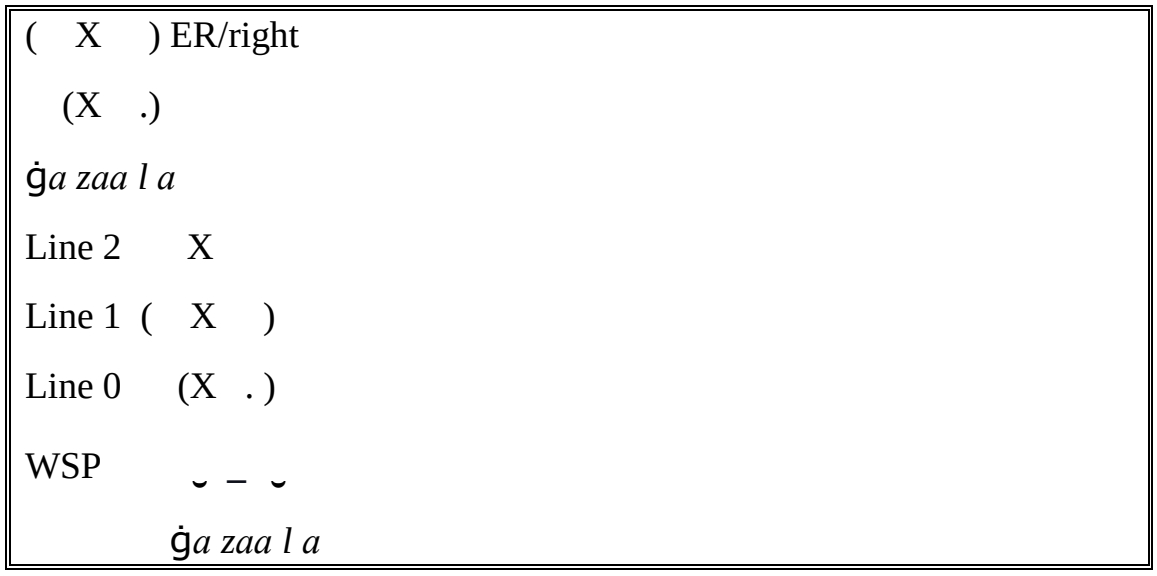


Figure (4.70): The Bracketed Grid of the Word /ġ*a zaa l a/*

The second word / ġ*az zi loo ki* / is a tetrasyllabic word. Stress is received by the pre-final heavy syllable. The word's stress pattern is (_ ˘ _' ˘). The rules of metrical foot construction build two feet over the word; the first foot occurs on the third syllable and the following syllable, and the second is over the initial sequence of heavy-light syllables.

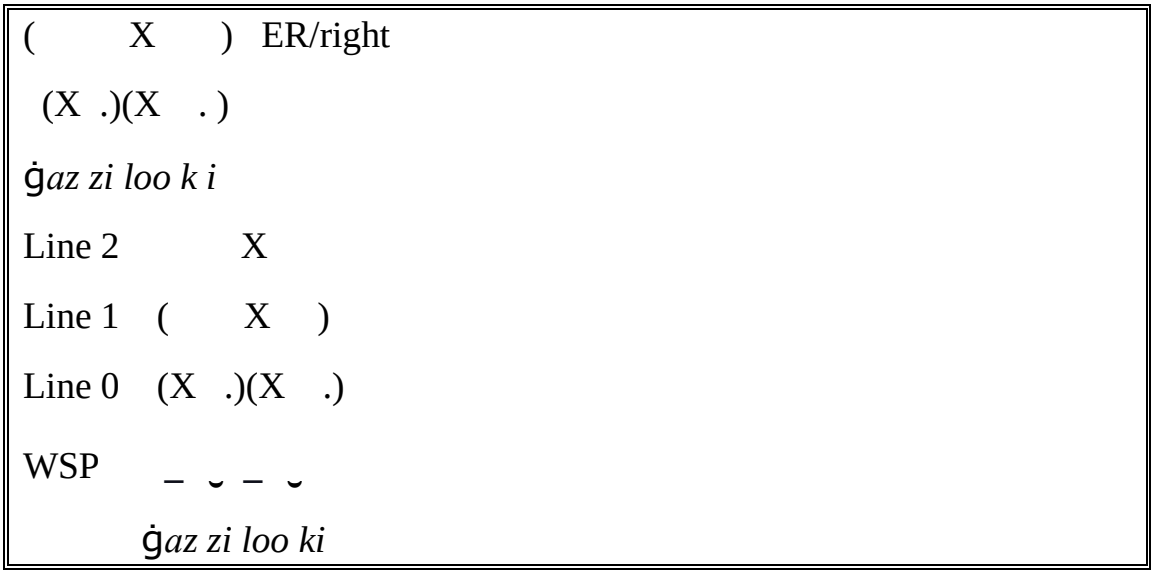


Figure (4.71): The Bracketed Grid of the Word /ġ*az zi loo ki/*

This dimeter line is built on the following rhythmic patterns: iambic pattern, notated as ˇ ¯, followed by the sequence of unstressed syllables in */la ġaz zi/* , and ends with a trochaic pattern, notated as ¯ ˇ.

Syntactically, /*bil ŋaay*/ consists of the preposition /*bil* / and the noun / *ŋaay* /. Phonologically /*bil ŋaay*/ is composed of two syllables, the syllable pattern for this word is heavy-superheavy. AI word stress rules make the second superheavy syllable containing the long vowel the stressed syllable, producing the (_ =') stress pattern. By applying metrical rules of foot construction, the final consonant is made extametrical, then two metrical feet can be built over this word: one occurs over the final remaining heavy syllable, and the other occurs over the initial heavy syllable.

Figure (4.72): The Bracketed Grid of the Word */bil ṃaa<y>* /

/daɛ bi loo ki / is a tetrasyllabic word with a heavy-light-heavy-light syllable pattern. Stress goes to the pre-final heavy syllable, producing (_ ◡ _ˈ◡) word's stress pattern. Metrical rules construct form two metrical feet over this word: one foot occurs on the pre-final syllable and the last syllable, whereas the second foot occurs on the first syllable and the following one.

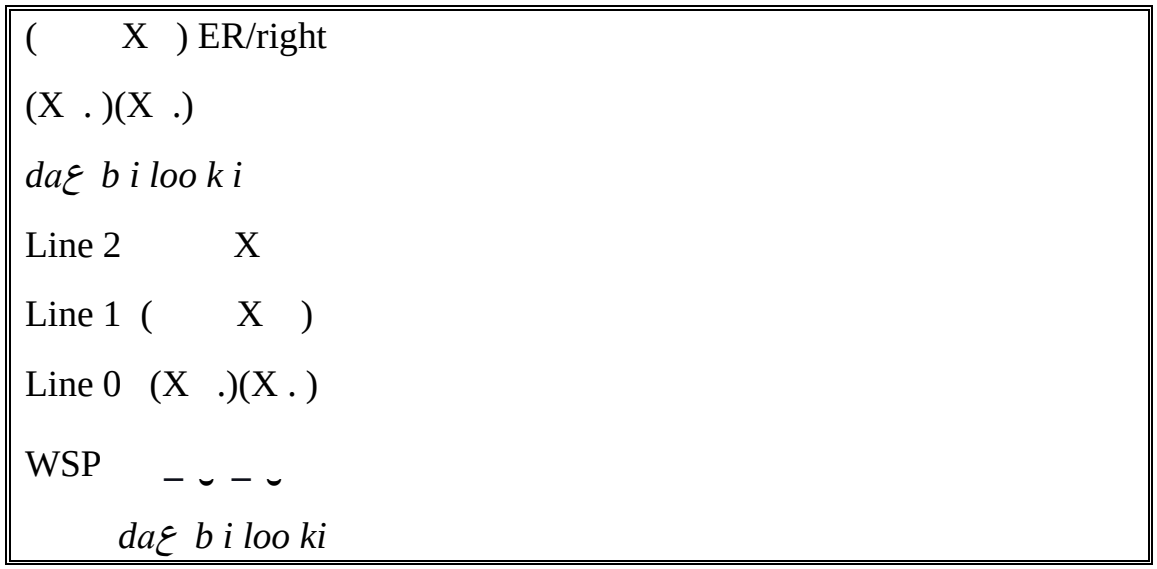


Figure (4.73): The Bracketed Grid of the Word / *daɛ b i loo ki/*

/ *bil ṃaay daɛ bi loo k i* /

The above line is dimeter with the following rhythmic patterns: iambic pattern, notated as ˘ ¯, besides, this line has a sequence of two unstressed syllables and ends with a trochaic pattern, notated as ¯ ˘.

/gaaɛ da/ is a disyllabic word with a superheavy-light syllable pattern. Stress goes to the initial superheavy syllable, producing the (_' ‿) stress pattern. Metrical rules of foot construction build one metrical foot over the present word, as displayed below:

(X) ER/right
(X .)
gaaɛ da
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP _ ‿
gaaɛ da

Figure (4.74): The Bracketed Grid of the Word */gaaɛ da /*

/ɛa laŠ/ is a preposition which is composed of light and heavy syllables. It is an unstressed word, notated as (. .). */Šaṭ /* is a monosyllabic word with one heavy syllable which receives stress naturally, producing the (_') stress pattern. The final consonant in the present word cannot be made extrametrical because (CV) structure is unable to form a foot in IA. As a result, one foot is built over this heavy syllable by applying the metrical rules of foot construction.

Figure (4.75): The Bracketed Grid of the Word /*Šaṭ*/

The present line is a dimeter line since it contains two stressed syllables. It is composed of a trochaic rhythmic pattern, notated as ¯ ˇ. It deviates because it ends with one stressed syllable.

/ *gaaɛ dat* / is a disyllabic word with a superheavy-heavy syllable pattern. Stress goes to the initial superheavy syllable, producing the (_' _) stress pattern. Metrical rules of foot construction build one metrical foot over the present word, after rendering the final consonant of the second syllable extrametrical, as displayed below:

Figure (4.76): The Bracketed Grid of the Word /*gaaɛ da<t>*/

/ti ma Šaṭ / is composed of three syllables with a light-light-heavy syllable pattern. By applying the rules of IA stress, stress goes to the first syllable, resulting in the following stress pattern: (˘' ˘ –). One metrical foot is constructed over this word according to the rules of metrical foot construction, after making the final consonant extrametrical.

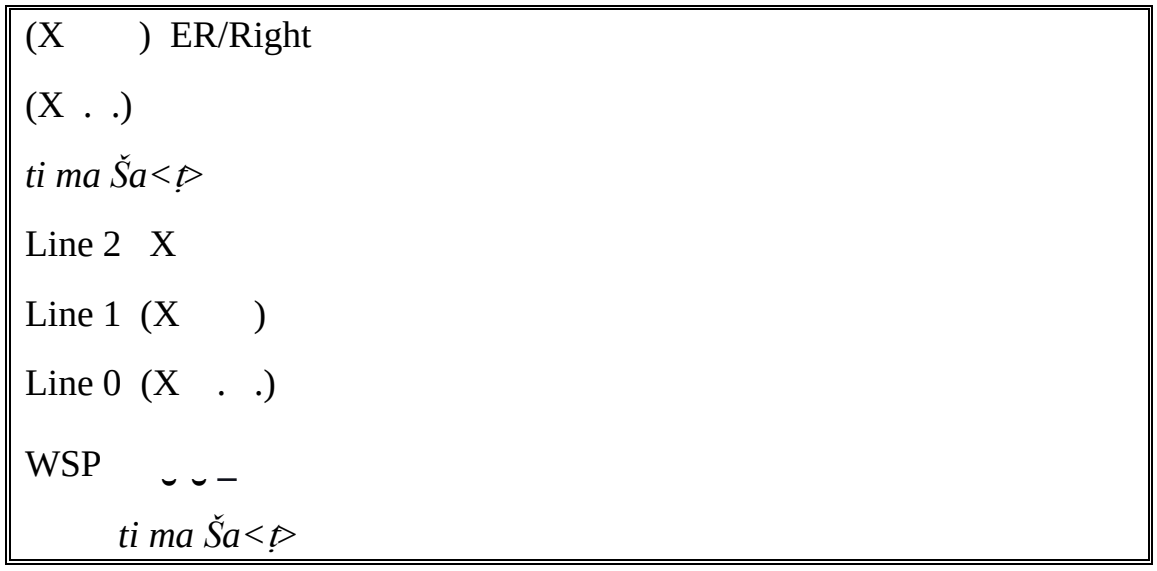


Figure (4.77): The Bracketed Grid of the Word */ti ma Ša<ṭ>/*

The present line is a dimeter line with two rhythmic patterns: trochaic, notated as ¯ ˇ, and dactylic, notated as ¯ ˇ ˇ.

This word */ʔi jaa ha /* is composed of the verb /*ʔ ija*/ 'he/she came' with the pronoun suffix (–ha). It is a trisyllabic word with a light-heavy-light syllable pattern. Stress goes to the syllable */jaa/* since it contains the long vowel The stress pattern is (◡ _' ◡). One metrical foot can be constructed on the second syllable and the last one by applying the rules of metrical foot construction. In the light of the Priority Clause Principle, the first light syllable is left unfooted.

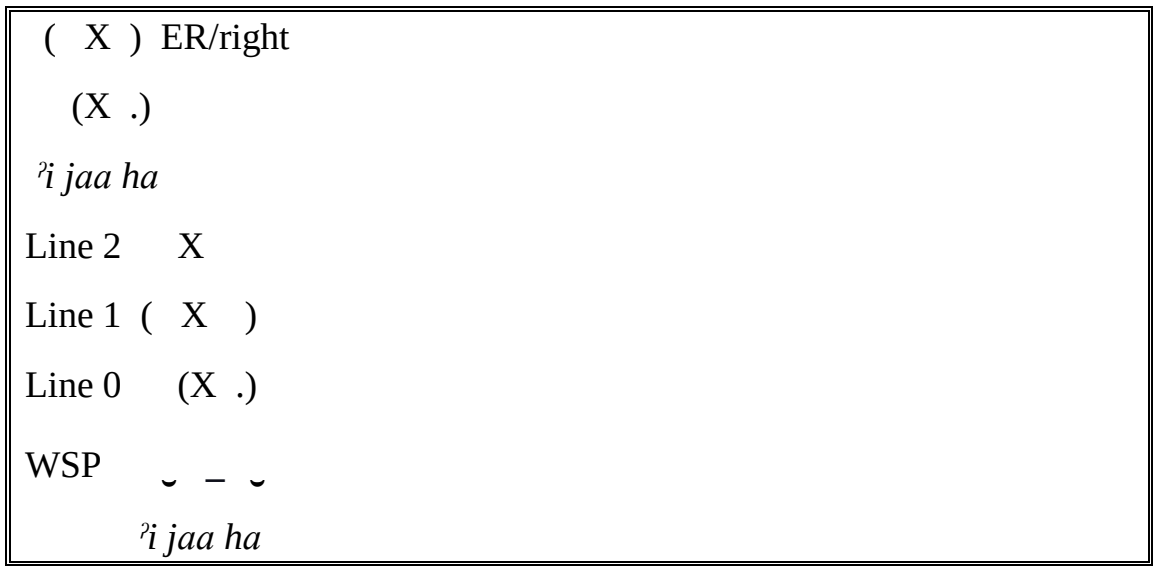


Figure (4.78): The Bracketed Grid of the Word */ʔi jaa ha /*

/nuu mi / is composed of a heavy-light syllable pattern. The initial heavy syllable is stressed in the light of IA word stress rules. The (_' ◡) is the word stress pattern for the present word. Metrical rules establish one foot over the initial heavy syllable and what follows it (i.e. the light syllable).

Figure (4.79): The Bracketed Grid of the word */nuu mi* /

The present line */ʔi jaa ha nuu mi* / is structured from an iambic dimeter rhythmic meter, notated as ˘ ¯. It deviates since it ends with one unstressed syllable.

/ gal lil ha / is a trisyllabic word with a heavy-heavy-light syllable pattern. The first syllable is stressed. The stress pattern is (_' _ ˘). According to metrical rules of foot construction, two metrical feet are structured: one foot occurs over the first syllable, and the other occurs on the second syllable and the last syllable.

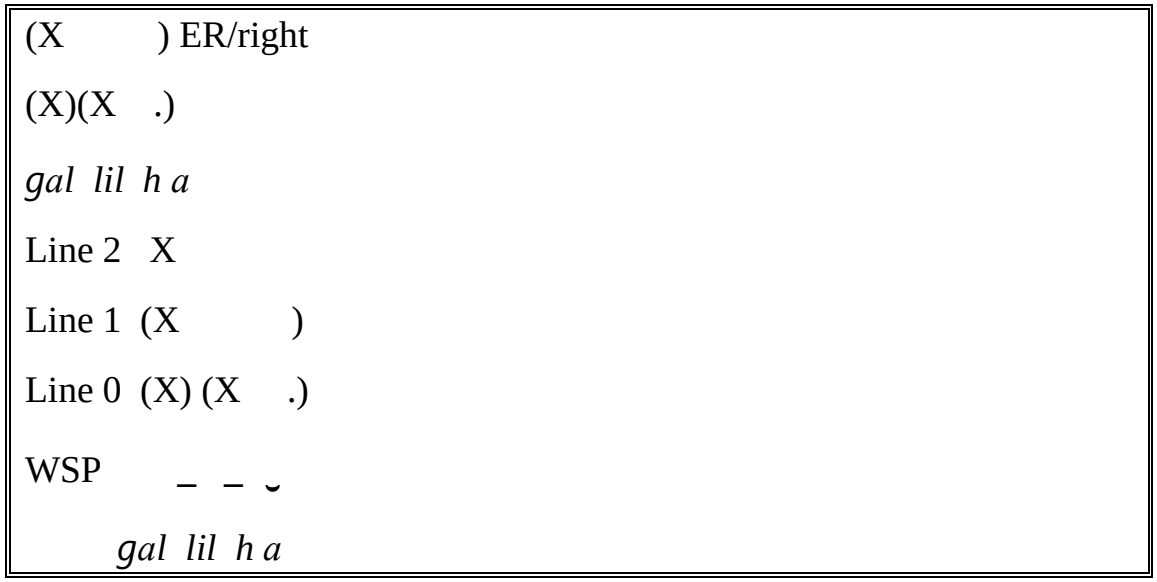


Figure (4.80): The Bracketed Grid of the word /*gal lil h a* /

/ *guu mi* /is a disyllabic word with a heavy-light syllable pattern. Stress is attached to the initial heavy syllable, producing (_' ◡). One metrical foot is established over this word by applying metrical rules of foot construction.

Figure (4.81): The Bracketed Grid of the Word /*guu mi*/

/*ɢal lil ha ɢuu m i* /

The line above is a dimeter line with two rhythmic patterns; dactylic and trochaic arranged as follows: dactylic-trochaic. Dactylic is notated ¯ ˇ ˇ, and trochaic is notated as ¯ ˇ.

/*ɢal lat la* / is composed of a heavy-heavy-light syllable pattern. Stress goes to the initial heavy syllable. The resulting pattern is (_' _ ◡). Metrical rules of foot construction form two metrical feet over this word: one foot occurs over the first syllable, whereas the other occurs over the second syllable and the last one.

(X) ER/right
(X) (X .)
ɢal lat la
Line 2 X
Line 1 (X)
Line 0 (X) (X .)
WSP _ _ ◡
ɢal lat la

Figure (4.82): The Bracketed Grid of the word / *ɢal lat la* /

/maa/ is a negation particle. It is composed of a single heavy syllable. It is notated as (**.**) since it is unstressed. The monosyllabic word */ɢuum /* is composed of a superheavy syllable, stress is placed on it, then giving the stress pattern (‗'). One foot is formed over this word depending on the rules of metrical foot construction after making the final consonant exreametrical.

(X) ER/right

(X)

ɠuu<m>

Line 2 X

Line 1 (X)

Line 0 (X)

WSP ═

ɠuu<m>

Figure (4.83): The Bracketed Grid of the word */ɠuu<m>/*

The second line */ɠal lat la maa ɠuum /* is a dimeter line with the following rhythmic pattern: dactylic, notated as ¯ ˘ ˘, it has deviated because it ends with one stressed syllable. Besides, /*maa/* does not influence the rhythmic pattern.

/ haa ð a / is a disyllabic word with a heavy-light syllable pattern. Syntactically speaking, the present word is a grammatical word, but it is stressed to emphasize the meaning of the line. According to IA word stress rules, the syllable */haa /* is stressed. The (‗' ـِ) is the stress pattern of the word. One foot can be constructed on the present word.

Figure (4.84): The Bracketed Grid of the word */haa δa/*

/ʗi ṣaa ni / is composed of three syllables with a light-heavy-light syllable pattern. The syllable */ṣaa/* is stressed, producing the stress pattern (ᴗ –'ᴗ). Metrical rules form one foot over the pre-final heavy syllable and the following light syllable. The first light syllable is left unfooted depending on the Priority Clause Principle.

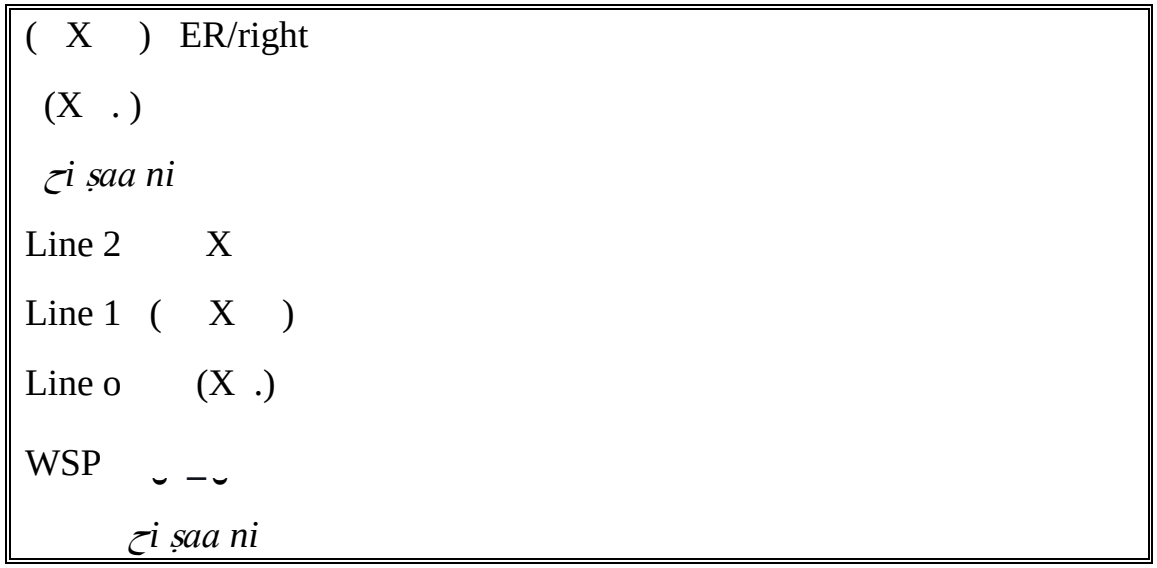


Figure (4.85): The Bracketed Grid of the word */ʗi ṣaa ni/*

This dimeter line is composed of two rhythmic patterns: dactylic, notated as ¯ ˇ ˇ, followed by trochaic, notated as ¯ ˇ.

The current word */ʔa Šid da* /, containing three syllables with a light-heavy-light syllable structure. Stress is attached to the initial light syllable, producing the stress pattern (◡ ' _ ◡). Metrical rules form two feet over this word: one foot is built over the initial light syllable, and the second is built over the pre-final heavy syllable and the following light one.

Figure (4.86): The Bracketed Grid of the word / *ʔa Šid da/*

/ *war kab /* is composed of two heavy syllables. The first heavy syllable is stressed according to IA word stress rules, resulting in the following stress pattern (_' _). Metrical rules of foot construction build one metrical foot over the first syllable and the last one after marking the final consonant as extrametrical.

(X) ER/right

(X .)

war k a< b>

line 2 X

line 1 (X)

line 0 (X .)

WSP _ _

war ka <b>

Figure (4.87): The Bracketed Grid of the Word */ war ka <b>/*

This line */ʔa Šid da war kab/* is constructed from a dimeter rhythmic meter with the following types of feet (rhythmic pattern): dactylic, notated as ¯ ˘ ˘, and trochaic foot, notated as ¯ ˘.

The preposition */ɛa lal /* is a disyllabic word with a light-heavy syllable pattern. It is unstressed, notated as (. .). This word */si kar kab/* has a light-heavy-heavy syllable pattern. Stress is received by the initial light syllable. The stress pattern for this word is (˻' _ _). The final consonant is designated as extrametrical according to metrical rules of foot construction, as such two metrical feet are formed; one occurs over the initial light syllable, whereas the other occurs over the pre-final heavy syllable and the following light syllable.

(X) ER/right

(X (X .)

si kar ka <b>

Line 2 X

Line 1 (X)

Line 0 (X) (X .)

WSP ◡ – –

si kar ka <b>

Figure (4.88): The Bracketed Grid of the Word */si kar ka<b>/*

/ʕa lil si kar kab /

The line above is a monometer line with a dactylic rhythmic meter, notated as ¯ ˘ ˘.

/si kar ka bil / is a tetrasyllabic word with a light-heavy-light-heavy syllable pattern. The first light syllable is attached stress, giving the following stress pattern: (◡' – ◡ –). Metrical rules of foot construction form two feet over the present word: one is over the initial light syllable, and the other is over the second heavy syllable and the following sequence of light syllables after making the final consonant of the last heavy syllable extrametrical.

Figure (4.89): The Bracketed Grid of the Word /*si kar ka bi<l>*/

/ bar riiy ya / is a trisyllabic word with a heavy-superheavy-light syllable pattern. The second superheavy syllable is stressed, producing the following stress pattern (– =' ⏑). Two metrical feet are constructed over the present word according to the metrical rules of foot construction: one foot occurs over the second superheavy syllable and the last syllable, whereas the second is over the initial heavy syllable, as shown below:

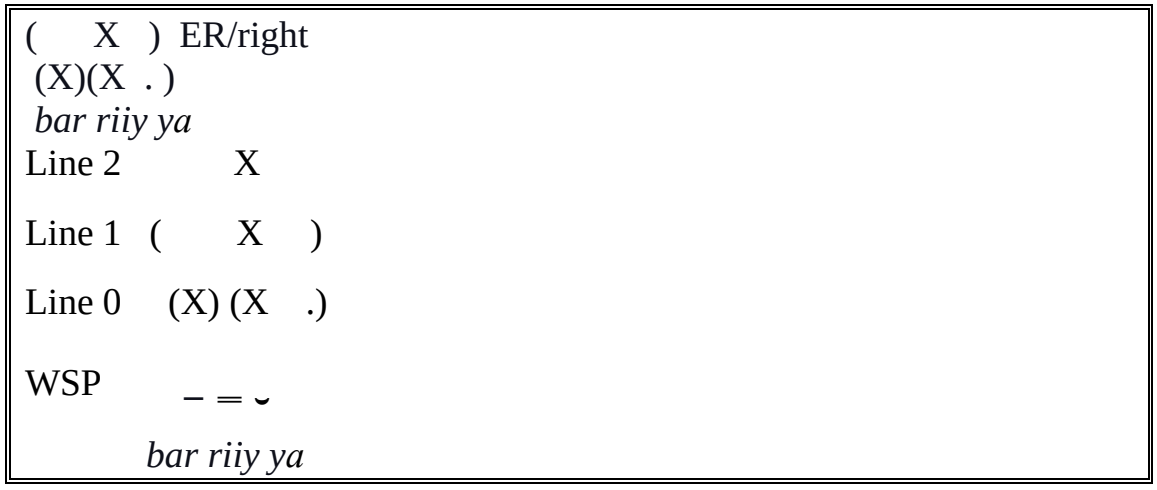


Figure (4.90): The Bracketed Grid of the Word */ bar riiy ya /*

This line */si kar ka bil bar riiy ya /* is a dimeter line with dactylic rhythmic meter, notated as ¯ ˘ ˘, and trochaic rhythmic meter, notated as ¯ ˘. The present line witnesses a sequence of unstressed syllables in /bil bɑ/

The pre-verbal negation particle / *laa/*[1] is composed of a single heavy syllable. It is an unstressed word so it is notated as (.). */ tib Čiin* / is a disyllabic word with heavy and superheavy syllables. Stress is put over the last superheavy syllable. The (_ _') is the stress pattern of the word. The final consonant is made extrametrical by the rules of metrical foot construction, as such two metrical feet are built over this word: the first one is located on the final syllable, whereas the second is located over the initial heavy syllable in this line.

Figure (4.91): The Bracketed Grid of the Word / *tib Čii<n>*/

/ ɛa lay ya/ is composed of three syllables: light-heavy-light. It is a functional word, as such it is unstressed, producing the (. . .) unstressed pattern.

The line */ laa tib Čiin ɛ a lay ya* / is monometer iambic rhythmic meter notated as ˘ ¯. It has deviated because it is composed of a series of unstressed syllables.

The word */ʔib Či/* is composed of heavy and light syllable pattern. The first syllable is attached stress, producing the following stress

[1] /*laa/* is the most frequent negation particle used in CA and Modern Arabic. It can take different positions in a sentence such as pre-verbal and pre-nominal positions (Dendane and Dendane,2012, p. 6).

pattern: (_' ˘). An individual foot can be built on the first syllable and the last one relying on the metrical rules of foot construction.

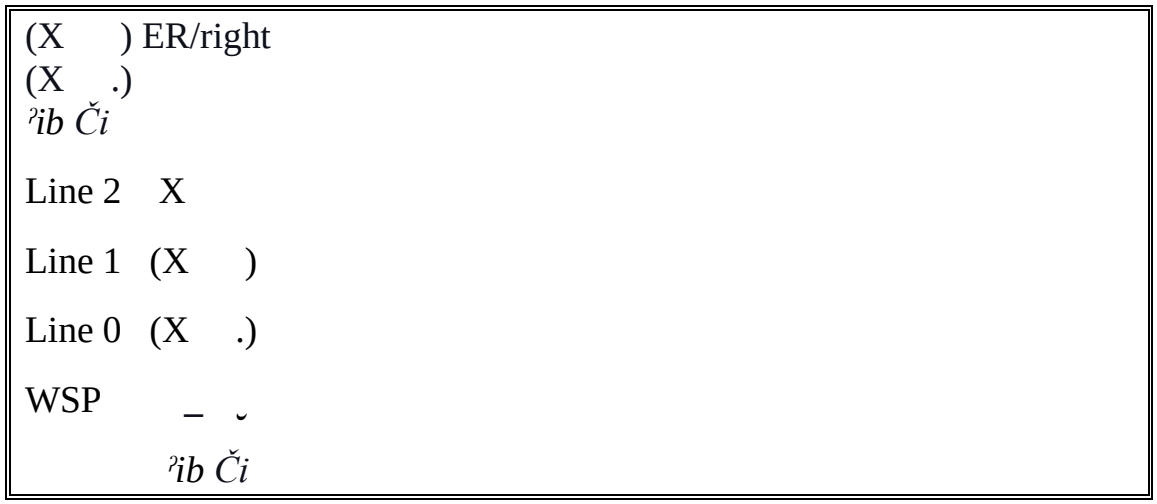


Figure (4.92): The Bracketed Grid of the Word */ʔib Či/*

The preposition */ɛa laɕ/* is a disyllabic grammatical word. The unstressed pattern for this word is (**. .**). */ juu liČ /* is a disyllabic word with a heavy-heavy syllable pattern. The first heavy syllable receives stress. The (_' _) is the stress pattern of this word. Metrical rules of foot construction build one foot over the word, as follows:

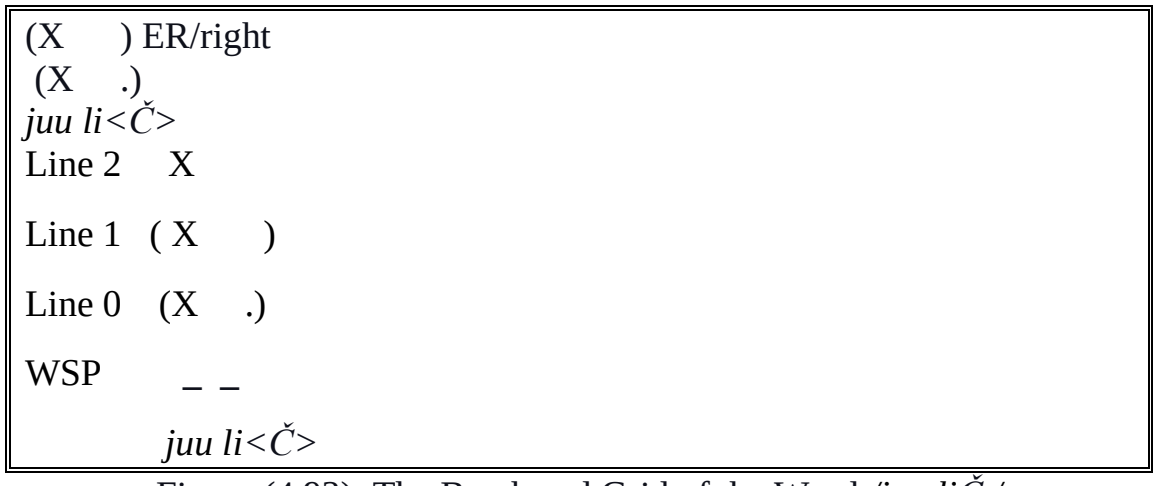


Figure (4.93): The Bracketed Grid of the Word */juu liČ /*

The line above is a trochaic dimeter rhythmic meter, notated as ¯ ˘. It has deviated because */ʔib Či/* followed by a sequence of unstressed syllables in */ɛa la ɕ/*.

The next line starts with the word */ ʗ juu liČ /* which has a special type of syllable structure in that its onset starts with two consonants. Al.Abdely (2011,pp. 389-393) affirms that in all Arabic variants such a type of syllable is irrelevant to the stress assignment process. */bar baƐ miiy ya/* is a tetrasyllabic word with a heavy-heavy-superheavy-light syllable pattern. IA rules of stress require assigning stress to the syllable */miiy/*, resulting in the following stress pattern: (_ _ =' ˘). Three metrical feet are formed over the present word: the first foot is over the pre-final superheavy syllable and the following light, the second one is located over the second syllable, and the last foot occurs over the first syllable depending on the metrical rules of foot construction.

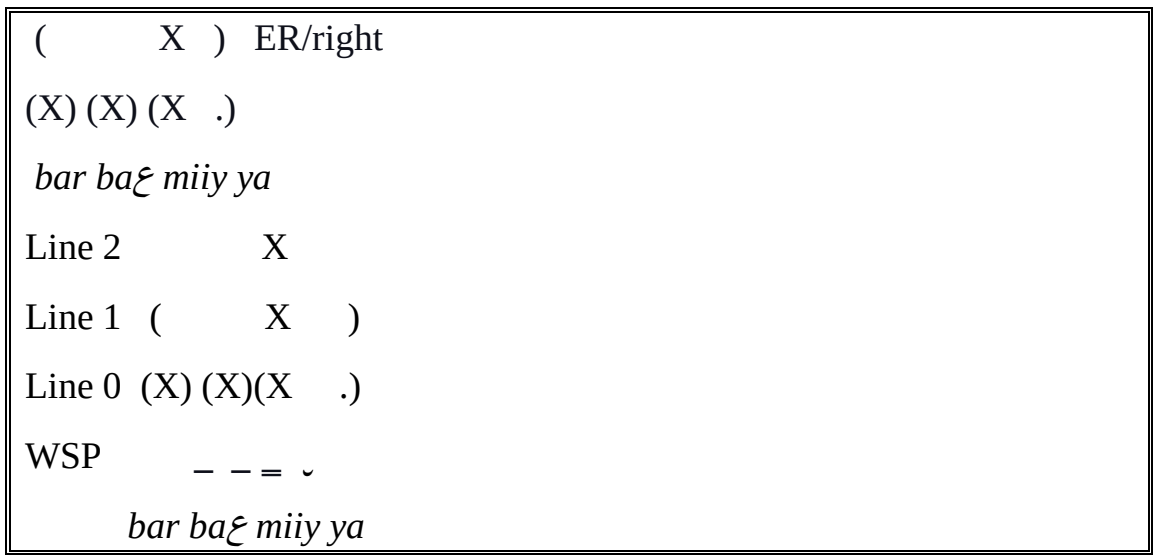


Figure (4.94): The Bracketed Grid of the Word */ bar baƐ miiy ya/*

The last line in this nursery is a monometer line which contains the following rhythmic pattern: trochaic foot, notated as ¯ ˘, besides this line has a sequence of unstressed syllables.

7. Analysis of the seventh nursery rhyme: "Aman, henna, aman" ***/ʔa maan ya ح i n na ʔa maan /***

According to the traditions for each region in Iraq, children play and recite the present nursery rhyme. In some regions, this rhyme is shared by boys and girls while in others it is girls specific where the girls take a circulator form tiding the hands and start reciting */ʔa maan ya ح i n na ʔa maan /*.

امان يا حنه امان

/ʔa maan ya ح i n na ʔa maan /

Oh, henna, Oh!

حنة البصره امان

/ح in na til baṣ ra ʔa maan /

Oh henna of Basra!

علينا حسرة امان

/ع a lee na ح as ra ʔa maan/

Oh, it is not attainable for us

و اليوم عيدي

/wil yoom ع ii di/

And today is my feast,

لا لا لا

/la la la/

(La La La)

فستان جديدي

/fus taan ja dii di/

With a new dress,

لا لا لا

/la la la/

(La La La)

فستاني كشكش

/fus taa ni kaŠ kaŠ /

My dress is pleated

لا لا لا

/la la la /

(La La La)

بلورد ملطش

/bil war dim laṭ ṭaŠ/

Speckled with flowers

لا لا لا

/la la la/

(La La La)

فستاني مشقق

/fus taa nim Šaq qaq/

My dress is torn

هي هي

/hay hay /

(Hey Hey)

The current nursery starts with the word */ʔa maan* /**.** It consists of two syllables with a light-superheavy syllable pattern. According to IA word stress rules, the final superheavy syllable receives stress, producing the following stress pattern: (ᴗ ═'). The metrical foot construction rules build one metrical foot over the final remaining heavy syllable after making the final consonant extrametrical, whereas the first syllable leaves unfooted according to the Priority Clause Principle, as follows:

Figure (4.95): The Bracketed Grid of the Word */ʔa maan* /

The word */ya/* is a vocative particle and a functional word. It is not stressed and notated as (**.**). / *ɕin na* / is a disyllabic word. It is composed of a heavy-light syllable pattern. The initial heavy syllable receives stress, then the stress pattern of the present word can be written as (‗' ᴗ). An individual foot can be structured on the initial syllable with the last syllable**.**

Figure (4.96): The Bracketed Grid of the Word / *ʕin na* /

/ʔa maan ya ʕin na ʔa maan /, the present line is built on two types of rhythmic patterns: iambic rhythmic pattern in */ʔa maan* /, notated as ˘ ¯, trochaic patterns in / *ʕin na* /, notated as ¯ ˘, and iambic pattern in */ʔam maan* /, Depending on how long the poetic line is, this line is trimeter (three feet).

The word /*ʕin na til* /**,** has the following syllable pattern: heavy-light-heavy. The first syllable is stressed according to IA stress rules, resulting in the following stress pattern: (_' ˘ _). The final consonant is made extrametrical after applying metrical rules of foot construction, then a single foot can be formed on the initial syllable and the following syllables, as displayed below:

(X) ER/right

(X . .)

ʒin na ti <l >

line 2 X

line 1 (X)

line 0 (X . .)

WSP _ ◡ _

ʒin na ti <l >

Figure (4.97): The Bracketed Grid of the Word /*ʒ in na ti <l >*/

/ *baṣ ra* / consists of two-syllable, so it is a disyllabic word with a heavy-light syllable pattern. In the light of IA word stress rules, stress is put on the initial heavy syllable, forming the following stress pattern (_' ◡). In applying metrical rules of foot construction, one metrical foot is built over the present word, as exhibited below:

(X) ER/right

(X .)

baṣ ra

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ ◡

baṣ ra

Figure (4.98): The Bracketed Grid of the Word / *baṣ ra* /

/ʒin na til baṣ ra ʔa maan /, three rhythmic patterns occur in the current line: a dactylic rhythmic meter, which is notated as ¯ ˘ ˘, a trochaic

rhythmic meter which is notated as ¯ ˇ, followed by an iambic rhythmic meter notated as ˇ ¯. Three stressed syllables exist in this line, as such, it is called a trimeter.

The preposition */ ɛa lee na /* is a trisyllabic word with a light-heavy-light syllable pattern. It is unstressed, notated as (. . .). */ʒas ra /* consists of two syllables namely: heavy syllable and light syllable. The first syllable is stressed, producing the following word stress pattern: (_' ˘). One metrical foot can be built on the first heavy syllable and the last light syllable.

(X) ER/right
(X .)
ʒas ra
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP _ ˘
ʒas ra

Figure (4.99): The Bracketed Grid of the Word */ ʒas ra /*

In this line */ɛa lee na ʒas ra ʔa maan/*, two stressed syllables exist so it is a dimeter line. A trochaic pattern in */ʒas ra/* notated as ¯ ˇ, followed by an iambic rhythmic meter, notated as ˇ ¯.

/ wil yoom / is a disyllabic word with a heavy-superheavy syllable pattern. Stress is attracted by the final superheavy syllable, producing the following stress pattern: (_ ⎓'). The final consonant is made extrametrical, two metrical feet are built over this word: one occurs on

the remaining final heavy syllable, while the second one is built over the first one.

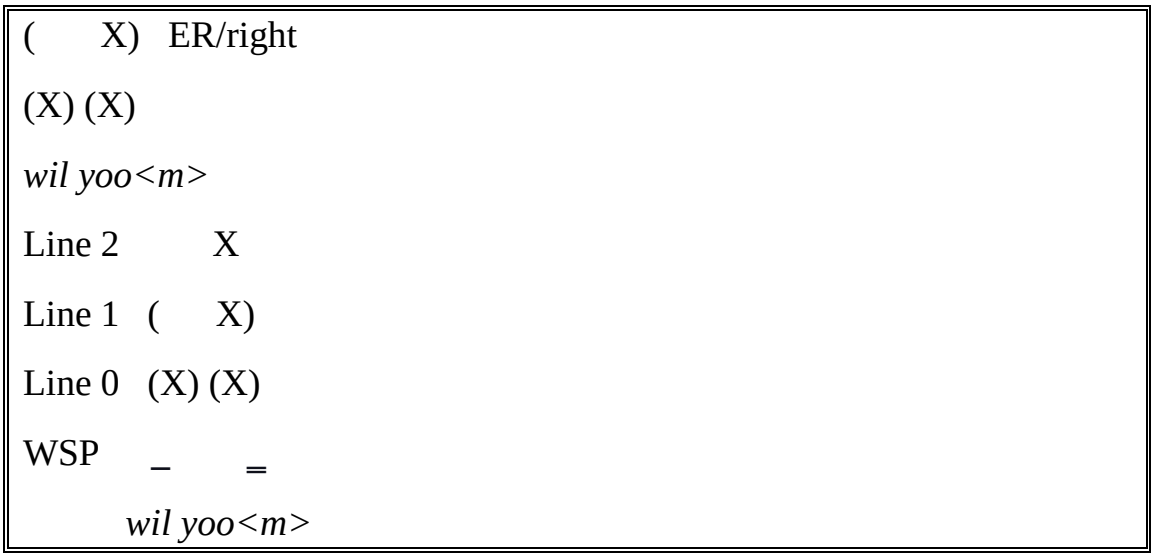


Figure (4.100): The Bracketed Grid of the Word /*wil yoo<m>*/

/ɛii di / is a disyllabic word with a heavy-light syllable pattern. The first syllable containing the long vowel receives stress. The word stress pattern is as follows (_' ◡). One metrical foot can be built over the word.

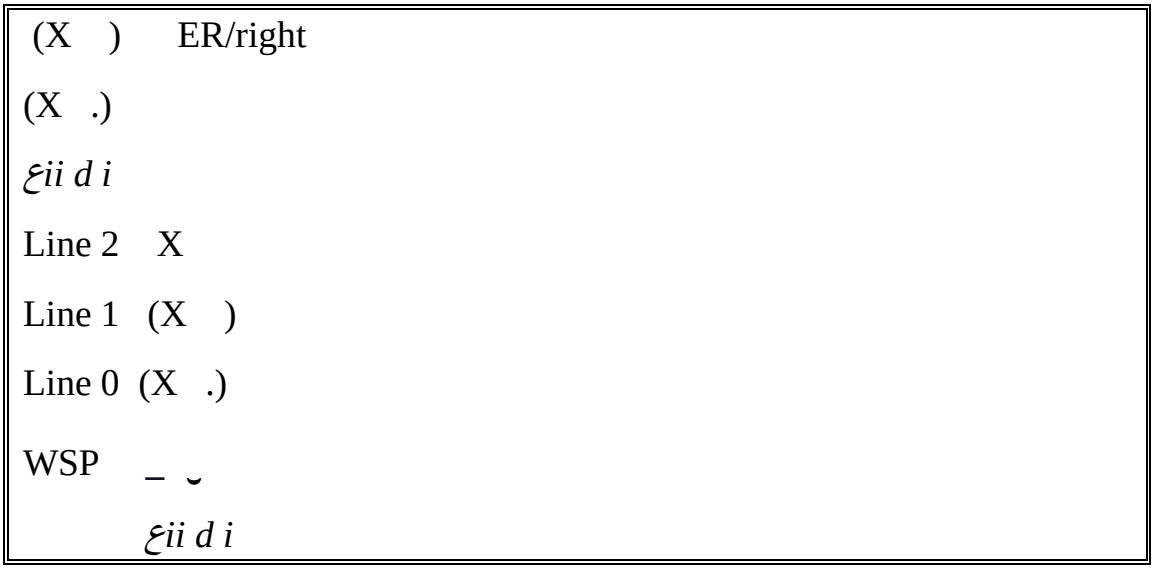


Figure (4.101): The Bracketed Grid of the Word /*ɛii d i /*

The present line */wil yoom ɛii di/* is a dimeter line, with two rhythmic patterns- iambic, notated as ˇ ¯, and trochaic, notated as ¯ ˇ.

The present line is composed of the interjection */ la la la /* a trisyllabic word with three light syllables, it is not stressed so it is notated as (**. . .**).

/ fus taan / is a disyllabic word with a heavy-superheavy syllable pattern. The last superheavy syllable receives stress, so it takes the following stress pattern: (_ _'). The final consonant of the superheavy syllable is designated as extreametrical after applying the metrical rules, then building two feet: one is over the remaining heavy syllable and the second one occurs on the initial heavy syllable.

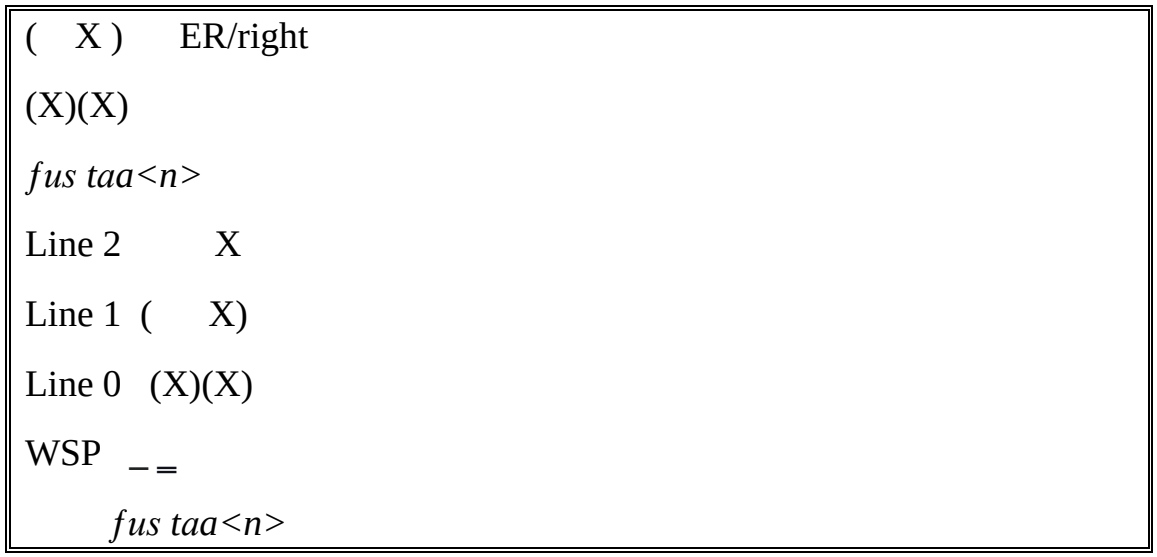


Figure (4.102): The Bracketed Grid of the Word */ fus taa<n> /*

/ ja dii di / is a trisyllabic word with a light-heavy-light syllable pattern. The syllable / *dii* / receives stress, the word's stress has the following pattern: (⏑ _' ⏑). In the light of the Priority Clause Principle, the initial light syllable is an unfooted syllable because the degenerated foot is disallowed in all Arabic variants. One foot can be constructed on the penult syllable and the last syllable, hence the foot parsing is taking a leftward direction.

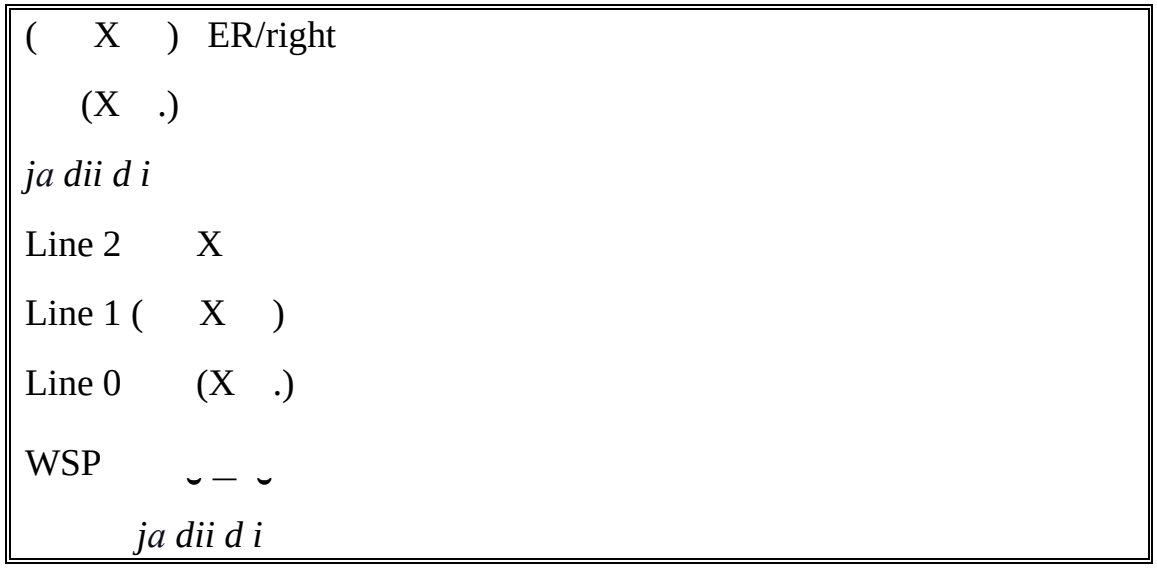


Figure (4.103): The Bracketed Grid of the Word / *ja dii d i/*

This dimeter line */fus taan ja dii di/* is built on one type of rhythmic pattern: two iambic meters, notated as ˇ ¯. It has deviated since it ends with one unstressed syllable.

/ fus taa ni / is a trisyllabic word with a heavy-heavy-light syllable pattern. The second heavy syllable is stressed, producing the (_ _' ◡) word's stress pattern. Two metrical feet are constructed; the first one is on the pre-final syllable and the last syllable, whereas the second one is over the initial heavy syllable depending on metrical rules of foot construction.

(X) ER/right

(X)(X .)

ƒus taa ni

Line 2 X

Line 1 (X)

Line 0 (X)(X .)

WSP _ _ ◡

ƒus taa ni

Figure (4.104): The Bracketed Grid of the Word */ƒus taa ni /*

/ kaŠ kaŠ / is a word of a disyllabic syllable structure, it has a heavy-heavy syllable pattern. The first syllable gets stress, giving the following stress structure: (_' _). The rules of foot construction make the final consonant extrametrical, then one metrical foot can be formed on the present word.

(X) ER/right

(X .)

kaŠ ka<Š>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

kaŠ ka<Š>

Figure (4.105): The Bracketed Grid of the Word */kaŠ ka<Š>/*

The present dimeter line */ƒus taa ni kaŠ kaŠ /* is structured from one type of rhythmic patterns: two iambic patterns, notated as ˘ ¯. It is a

dimeter line because it consists of two stressed syllables. Additionally, it ends with one unstressed syllable.

The word */ bil war dim/,* having the following syllable structure: it is a trisyllabic word with a heavy-heavy-heavy syllable pattern. Concerning stress placement, the first heavy syllable is stressed. Accordingly, this word is composed of a stress pattern that can be written as follows: (_' _ _). According to metrical foot construction rules, the final consonant is rendered extrametrical, therefore; two metrical feet are formed: one foot is over the initial heavy syllable, and the other is over the pre-final heavy syllable and the remaining light syllable, as shown below :

(X) ER/right
(X)(X .)
bil war di<m >
Line 2 X
Line 1 (X)
Line 0 (X)(X .)
WSP _ _ _
bil w ar di<m >

Figure (4.106): The Bracketed Grid of the Word */ bil w ar di<m > /*

/laṭ ṭaŠ / is a disyllabic word, having the heavy-heavy syllable pattern. The initial syllable gets stress, producing the following stress pattern: (_' _). Metrical foot construction rules make the final consonant extrametrical, then one foot can be formed on the first syllable and the last syllable, as shown below:

(X) ER/right

(X .)

laṭ ṭa<Š>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

laṭ ṭa<Š>

Figure (4.107): The Bracketed Grid of the Word / *laṭ ṭa<Š>*/

This line /*bil war dim laṭ ṭaŠ*/ is a dimeter line with two rhythmic patterns: dactylic, notated as ¯ ˘ ˘, and trochaic, notated as ¯ ˘.

/ *fus taa nim* / is a trisyllabic word with a heavy-heavy-heavy syllable pattern. The syllable */taa*/ receives stress, producing the following word's stress pattern: (_ _' _). Two metrical feet are constructed; the first one occurs on the pre-final syllable and the following syllable which becomes light after making the final consonant extrametrical, whereas the second one is over the initial heavy syllable according to metrical rules of foot construction.

(X) ER/right

(X)(X .)

fus taa ni<m>

Line 2 X

Line 1 (X)

Line 0 (X)(X .)

WSP _ _ _

fus taa ni<m>

Figure (4.108): The Bracketed Grid of the Word /*fus taa ni<m>*/

/ *Šaq qaq* / is composed of two syllables with a heavy-heavy syllable pattern. Stress is put on the initial heavy syllable producing the following stress pattern: (_' _). Metrical foot construction rules designate the final consonant as extrametrical, hence one foot can be formed on the initial syllable and the syllable that follows it, as shown below :

(X) ER/right
(X .)
Šaq qa<q>
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP _ _
Šaq qa<q >

Figure (4.109): The Bracketed Grid of the Word / *Šaq qa<q>/*

This line */fus taa nim Šaq qaq/* is formed from an iambic dimeter rhythmic meter, notated as ˘ ¯ since it ends with one unstressed syllable it has deviated.

The interjection / *hay hay* / is composed of two syllables and has a heavy-heavy syllable pattern. It is an unstressed word, giving the following stress pattern: (**. .**). Abdullah and Talib (2009, p. 95) illustrate that */ hay hay /* is used by children to express happiness.

8.Analysis of the eighth nursery rhyme: "a white flower" */war da bee ẟa/*

As mentioned previously, there are no previous studies made for studying IA nursery rhymes (See 3.5) so it is hard to find a historical background about IA nursery rhymes. What can be said here is that all IA

nursery rhymes are a type of folklore which is accepted by children and associated with their entertainment.

اني ورده بيضه شكلي جميل

/ʔaa ni war da bee ðа Šak li ja miil /

I am a white flower with a beautiful shape.

ما احلى جمالي لمن اميل

/ maa ʔaح la ja maa li lam man ʔa miil /

Such an extraordinary beauty when swaying!

يا اطفال يا كبار اشربوا الحليب

/yaa ʔaṭ faal yaa ki baar ʔiŠ ra bul حa liib /

Hey children, hey adults, drink milk,

للصحه للقوه اسالوا الطبيب

/liṣ ṣ iح ح a lil quw wa ʔis ʔa lul ṭa biib /

For health, for strength, ask the doctor.

اشرب على مهلك واشكر الاله

/ʔiŠ rab ع a la mah lak wiŠ ku ril ʔi laah /

Drink slowly and thank God.

لازم تشكر ربك ابدا ما تنساه

/laa zim tiš kur rab bak ʔa ba dan maa tin saah/

You must thank God and never forget Him.

The first word in this nursery is */ ʔaa ni /* which is a first person singular pronoun (a grammatical word), but it is stressed to emphasize the meaning of the present line. It is composed of two syllables with a heavy-light syllable pattern. Stress is received by the syllable containing the

long vowel /ʔaa / producing the following stress pattern (_' ◡). One metrical foot can be built on the current word, as follows:

(X) ER/right
(X .)
ʔaa ni
Line 2 X
Line 1 (X)
Line 0 (X .)
WSP _ ◡
ʔaa ni

Figure (4.110): The Bracketed Grid of the Word / ʔaa ni /

The second word is / *war da* / which is a disyllabic word with a heavy-light syllable pattern. The first heavy syllable receives stress, resulting in the (_' ◡) stress pattern: The metrical rules of foot construction construct an individual foot over the initial heavy syllable and the following light syllable.

(X) ER/right

(X .)

war da

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ ◡

war da

Figure (4.111): The Bracketed Grid of the Word /*war da* /

The next word is / *bee ð*a/ which is a disyllabic word with a heavy-light syllable pattern. The first syllable takes stress, then the (_' ◡) is the

stress pattern for this word is One metrical foot can build on the initial syllable and the following syllable by applying the rules of metrical foot construction.

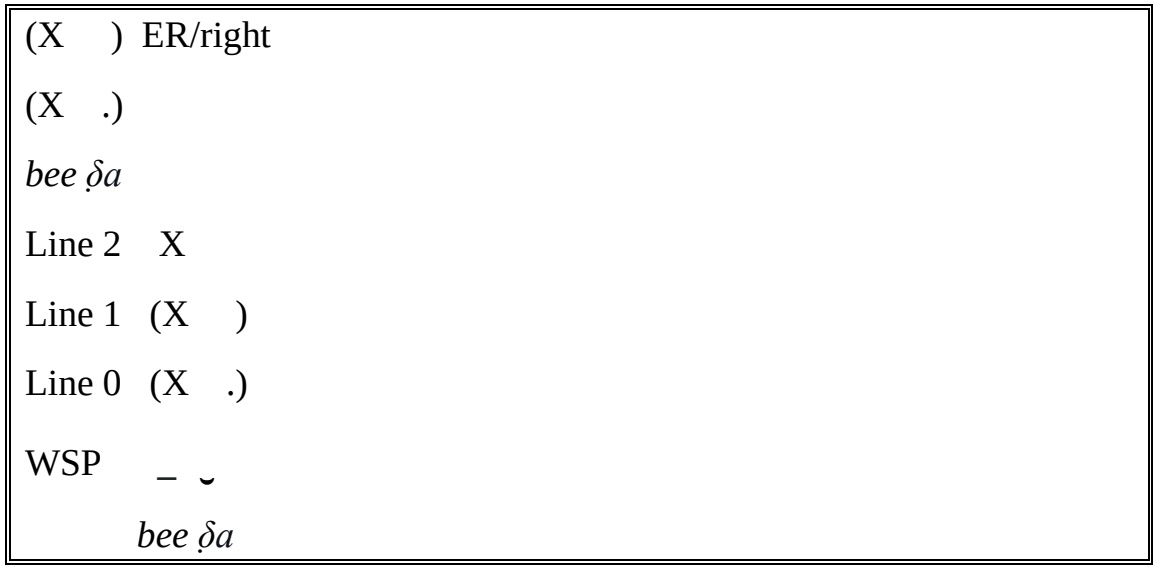


Figure (4.112): The Bracketed Grid of the Word /*bee ẟa* /

/Šak li / is a disyllabic word with a heavy-light syllable pattern. Stress is received by the initial heavy syllable. The stress pattern is (_' ◡). One foot can be constructed on the initial syllable and the following syllable depending on the metrical rules of foot construction.

Figure (4.113): The Bracketed Grid of the Word */ Šak li /*

/ja miil/ is a disyllabic word. The syllable pattern is a light-superheavy syllable pattern. The last superheavy syllable receives stress, hence the word's stress pattern is (˻ ═'). By applying the rules of constructing the metrical foot, one foot can be formed on the remaining heavy syllable after marking the last consonant as exrametrical. Drawing on the Priority Clause Principle, the first syllable is left unfooted since this structure of syllable (CV) cannot build a foot in all Arabic variants.

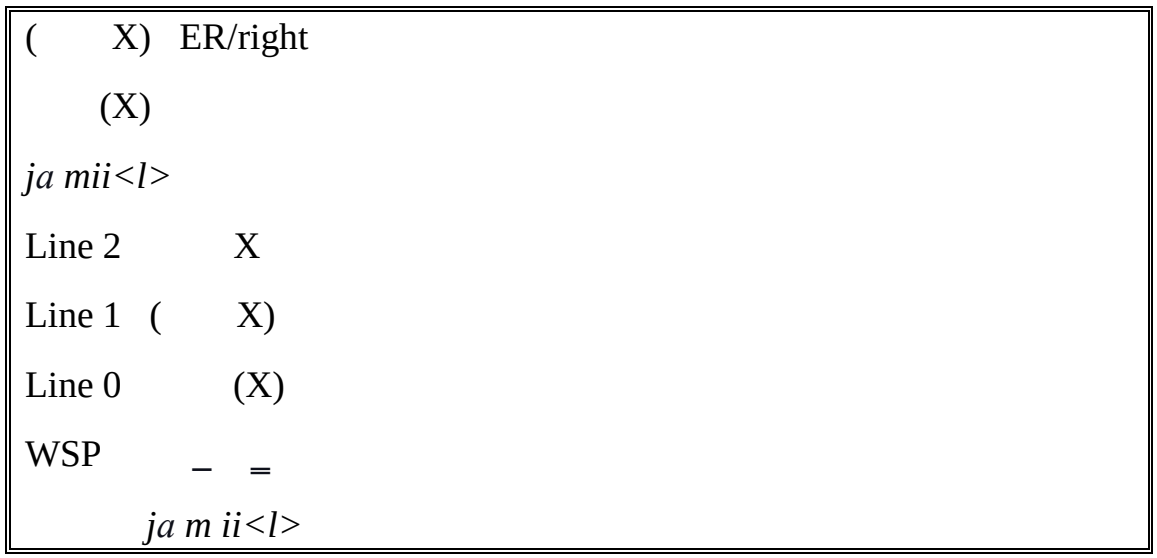


Figure (4.114): The Bracketed Grid of the Word */ ja mii<l> /*

/ ʾaa ni war da bee ḍa Šak li ja miil /

The pentameter line above is built on the following rhythmic patterns: four trochaic patterns, notated as ¯ ˇ, followed by an iambic pattern, notated as ˇ ¯.

/maa/ in the present line is used as an exclamatory particle since it is followed by the perfect verb[1] */ʾaح la* /. The (**.**) is the notation symbol for the present unstressed word. */ʾaح la* /is a disyllabic word with a heavy-light syllable pattern. The initial heavy syllable is stressed drawing on IA

[1] Muhammed (2018,p.417) states that /*maa/* has several functions and it can be used for exclamation when it is followed by a perfect verb in a form of **/***ʾaf عal/* 'أفعل'.

word stress rules, resulting in the following stress pattern: (_' ◡). One metrical foot can be built on the word.

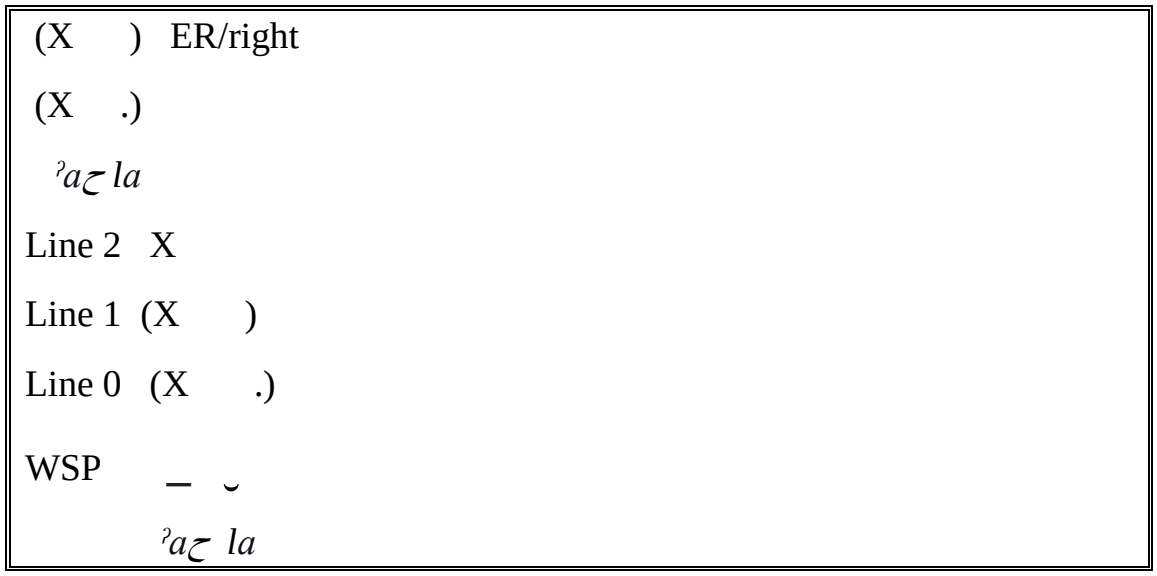


Figure (4.115): The Bracketed Grid of the Word /ʔaɛ la /

/ja maa li/ is a trisyllabic word with a light-heavy-light syllable pattern, therefore the pre-final heavy syllable attracts stress, producing the (◡ _' ◡) word's stress pattern. According to the metrical rules of foot construction, one metrical foot can be built over the second syllable and the following one. The initial light syllable is left unfooted depending on the Priority Clause Principle.

Figure (4.116): The Bracketed Grid of the Word / *ja maa li* /

/lam man/ is a disyllabic word with two heavy syllables. The first heavy syllable is stressed, then producing the (_' _) stress pattern. According to the metrical rules of foot construction, the final consonant of the second syllable is made extrametrical. One metrical foot can be constructed on the initial syllable and the following one.

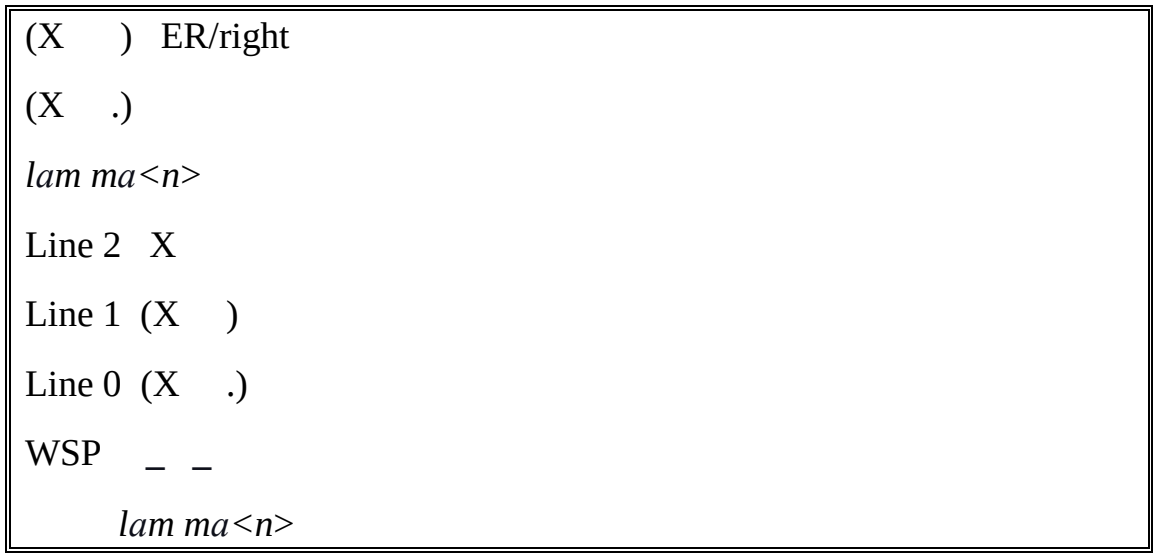


Figure (4.117): The Bracketed Grid of the Word / *lam ma<n>* /

/ʔa miil/ is a disyllabic word with a light-superheavy syllable pattern. Stress goes to the final superheavy syllable, resulting in the following pattern: (⏑ ⎓'). The word's final consonant is made extrametrical

depending on metrical foot construction rules, hence one foot can be constructed on the final syllable. To avoid the degenerated foot, the first syllable which is structured from (CV) is left unfooted according to the Priority Clause Principle.

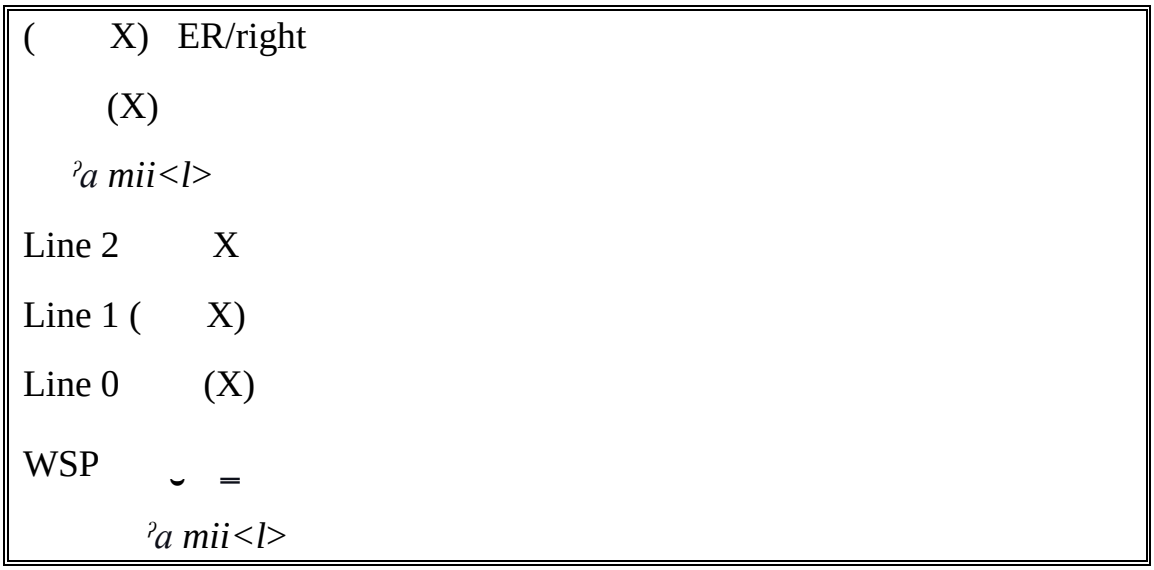


Figure (4.118): The Bracketed Grid of the Word / *ʔa mii<l>* /

The present line / *maa ʔaʗ la ja maa li lam man ʔa miil* / is structured from the following rhythmic pattern: dactylic-trochaic-trochaic-iambic. The dactylic pattern is notated as ¯ ˘˘, the trochaic pattern is notated as ¯ ˘, and the iambic pattern is notated as ˘ ¯. It is a tetrameter line.

/ *yaa* / is a vocative particle, composed of one heavy syllable. It is an unstressed word, producing the (.) unstress pattern. */ʔaṭ faal* / is a disyllabic word with a heavy-superheavy syllable pattern. The final superheavy syllable attracts stress, resulting in the following stress pattern: (_ ='). According to the rules of metrical foot construction, the final consonant of the superheavy syllable is designated as extrametrical. Two metrical feet are constructed: one foot occurs over the remaining heavy syllable, and the second foot occurs over the initial heavy syllable.

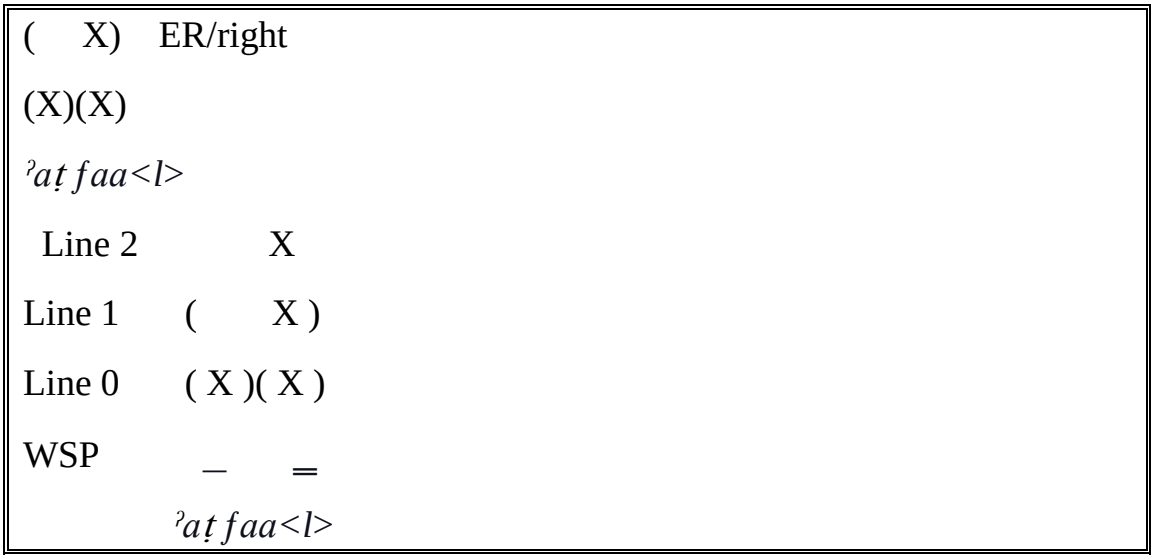


Figure (4.119): The Bracketed Grid of the Word / *ʔaṭ faa<l >*/

/*ki baar/* is preceded by the vocative particle */yaa*/. As mentioned in the previous paragraph */yaa*/ is an unstressed word, notated by the (.) unstress pattern. /*ki baar/* is a disyllabic word with a light-superheavy syllable pattern. The stress is received by the final syllable, producing the following stress pattern (˘ ═'). One foot is constructed over this word after making the final consonant extrametrical relying on metrical rules of foot construction. The initial light syllable with the CV structure is left unfooted depending on the Priority Clause Principle, as shown below:

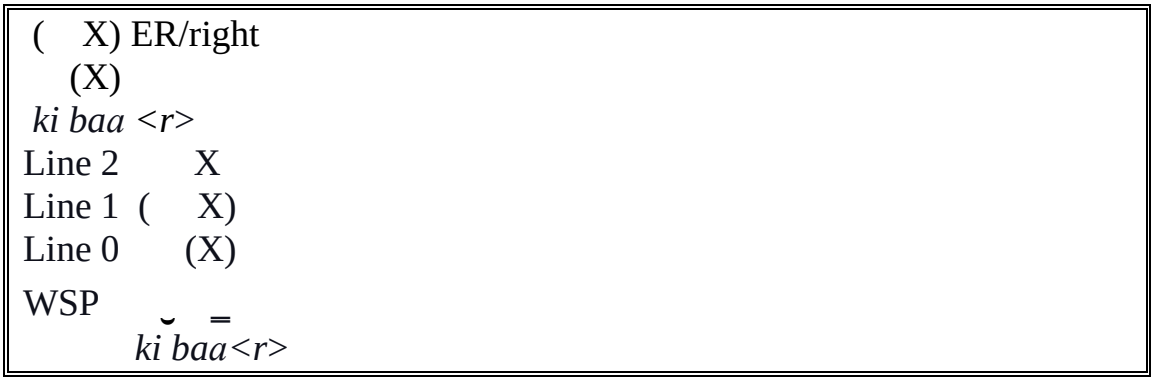


Figure (4.120): The Bracketed Grid of the Word / *ki baa<r>*/

/ʔiŠ ra bul / is a trisyllabic word, having the heavy-light-heavy syllable pattern. The first heavy syllable is stressed. The stress pattern is (_' ˘ _). The metrical rules of foot construction build only one foot over this word

which consists of one heavy and two light syllables, after making the final consonant of the third syllable extrametrical.

(X) ER/right

(X . .)

ʔiŠ ra bu<l>

Line 2 X

Line 1 (X)

Line 0 (X . .)

WSP _ ◡ _

ʔiŠ ra bu<l>

Figure (4.121): The Bracketed Grid of the Word / *ʔiŠ ra bu<l>*/

/ *ʤa liib*/ is composed of two syllables. It has a light-superheavy syllable pattern. The last superheavy syllable takes the stress. For the present word, the (◡ ⎓') is the stress pattern. Drawing on metrical foot construction rules, the final consonant is designated as extrametrical. One metrical foot is built over this word. The first syllable is left unfooted relying on the Priority Clause Principle.

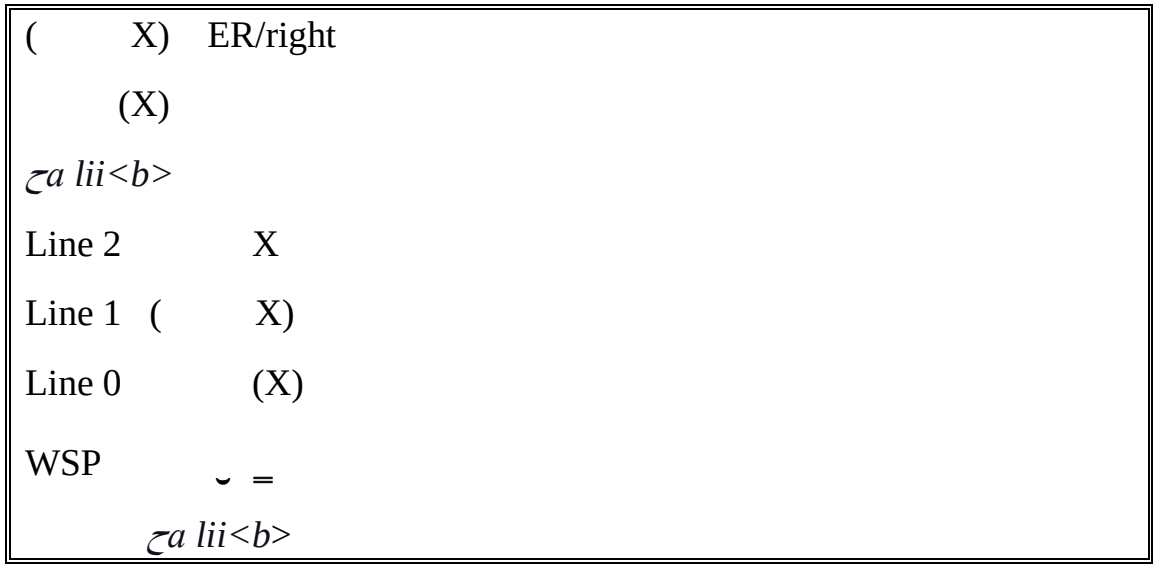


Figure (4.122): The Bracketed Grid of the Word / ʿa lii<b>/

This line */yaa ʾaṭ faal yaa ki baar ʾiŠ ra bul ʿa liib /* is a tetrameter line with the following rhythmic patterns: two iambic feet, notated as ˘ ¯, followed by a dactylic foot, notated as ¯ ˘ ˘, and ends with an iambic foot.

/liṣ ṣ iʿ ʿ a/ is transcribed as */lil ṣ iʿ ʿ a/* but pronounced as */liṣ ṣ iʿ ʿ a/* after the blending of the alveolar lateral */l/* into the dental spirant */ṣ /*. The word */liṣ ṣ iʿ ʿ a/* is a trisyllabic word with a heavy-heavy-light syllable pattern. Stress is placed over the first heavy syllable, resulting in the (_' _ ˘) stress pattern. Foot construction rules build two feet over the word, the first foot occurs on the initial heavy syllable, and the second one is located on the penult syllable with the last light syllable.

(X) ER/right

(X) (X .)

liṣ ṣiڃ ڃa

Line 2 X

Line 1 (X)

Line 0 (X)(X .)

WSP _ _ ◡

liṣ ṣiڃ ڃa

Figure (4.123): The Bracketed Grid of the Word */liṣ ṣiڃ ڃa/*

/lil quw wa/ is composed of three syllables with a heavy-heavy-light syllable pattern. The first heavy syllable is stressed, giving the following stress pattern: (_' _ ◡). Foot construction rules build two feet: the first one is formed on the initial syllable, whereas the second foot can be constructed on the second heavy syllable with the last one.

(X) ER/right

(X)(X .)

lil quw wa

Line 2 X

Line 1 (X)

Line 0 (X)(X .)

WSP _ _ ◡

lil quw wa

Figure (4.124): The Bracketed Grid of the Word */ l i l quw wa /*

/ʔis ʔa lul/ is a trisyllabic word with a heavy-light-heavy syllable pattern. The initial heavy syllable gets stress, producing the following

stress pattern: (_' ◡ _). Depending on the metrical rules of foot construction, one foot is constructed over this word which is composed of one heavy syllable with two light syllables after making the final consonant of the last syllable extrametrical.

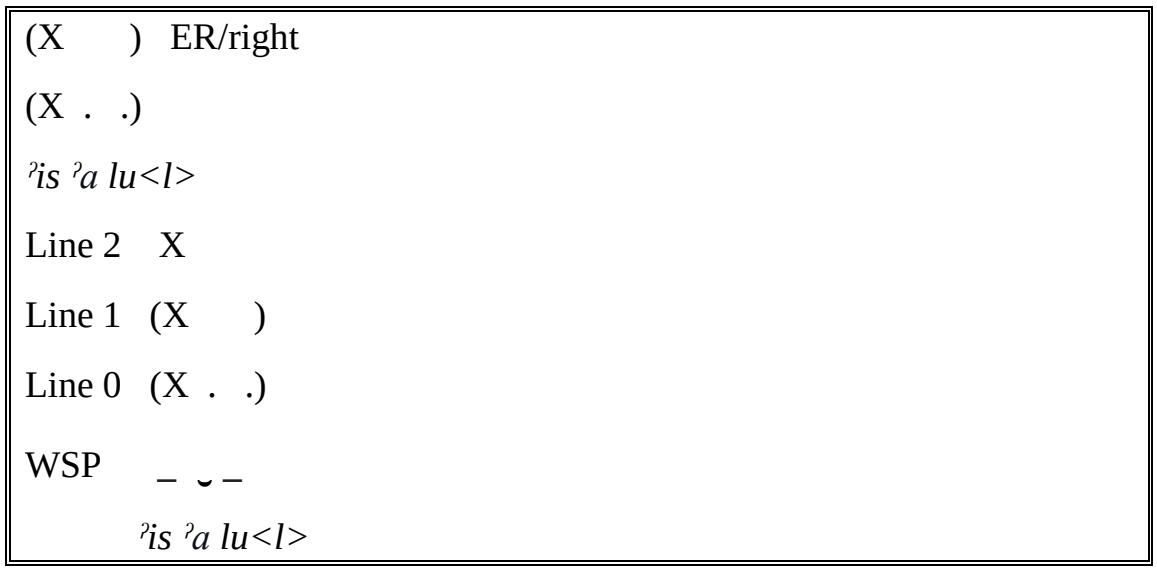


Figure (4.125): The Bracketed Grid of the Word / *ʔis ʔa lu<l>*/

/ ṭa biib/ is a disyllabic word with a light-superheavy syllable pattern. The last superheavy syllable is stressed, producing the following word stress pattern: (◡ _'). The last consonant is made extrametrical according to the metrical rules of foot construction, one metrical foot is built over this word. The initial light syllable is left unfooted to avoid the degenerated foot construction.

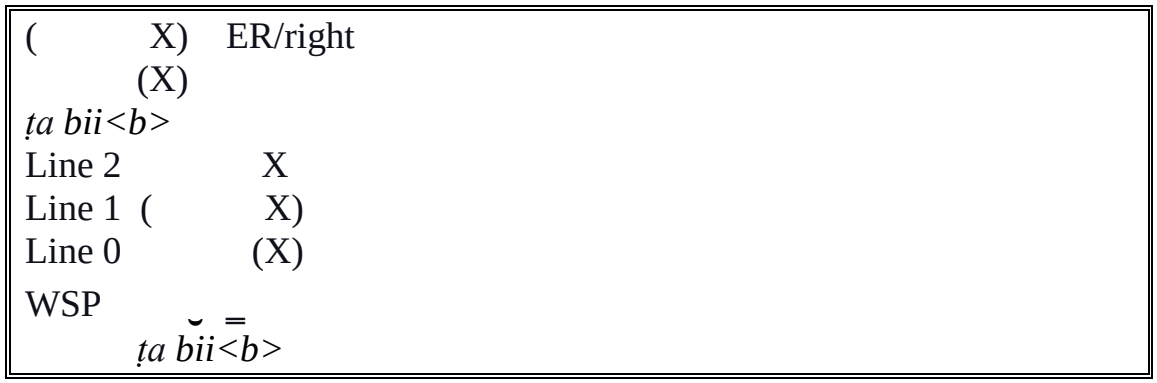


Figure (4.126): The Bracketed of the Word / *ṭa bii<b>* /

/liṣ ṣiʿ ʿa lil quw wa ʾis ʾa lul ṭa biib /

The previous line is a tetrameter line with two types of rhythmic pattern; three dactylic feet, notated as ¯ ˘˘, followed by an iambic foot, notated as ˘ ¯.

The word/ *ʾiŠ rab/* is composed of two heavy syllables. The initial heavy syllable receives stress. The stress pattern is (_' _). The final consonant is designated to be exrametrical depending on metrical foot construction rules, then one foot can be constructed on the initial syllable and the last one.

(X) ER/right
(X .)
ʾiŠ ra<b>
Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

ʾiŠ ra<b>

Figure (4.127): The Bracketed Grid of the Word */ʾiŠ ra<b> /*

/mah lak/ is preceded by the preposition / *ʿa la* / has two syllables with a light-light syllable pattern. As a grammatical word it is not stressed, resulting in the **(. .)** unstressed pattern. */mah lak/* is a disyllabic word with the following syllable pattern: heavy-heavy syllables. In the view of IA word stress features, the first heavy syllable is attached stress, resulting in the following stress pattern (_' _). The final consonant is rendered extrametrical according to metrical foot construction rules. One foot can be built on the initial syllable and the last one.

(X) ER/right

(X .)

mah la<k>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

mah la<k>

Figure (4.128): The Bracketed Grid of the Word /*mah la<k>* /

The word */ wiŠ ku ril/* is composed of three syllables with a heavy-light-heavy syllable pattern. According to IA word stress features, the initial syllable is attached stress, resulting in the following stress pattern: (_'◡ _). The final consonant is rendered extrametrical according to metrical foot construction rules. One foot can build on this word, as shown below:

(X) ER/right

(X . .)

wiŠ ku ri<l>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ ◡ _

wiŠ ku ri<l>

Figure (2.129): The Bracketed Grid of the Word / *wiŠ ku ri<l>*/

/ ʔi laah/ is a disyllabic word with a light-superheavy syllable pattern. The last superheavy syllable receives stress, producing the following

stress pattern: (◡ ═'). The first light syllable is left unfooted since the degenerated foot is forbidden in IA. According to metrical rules, the final consonant is designated as extrametrical, then one metrical foot is constructed over the word.

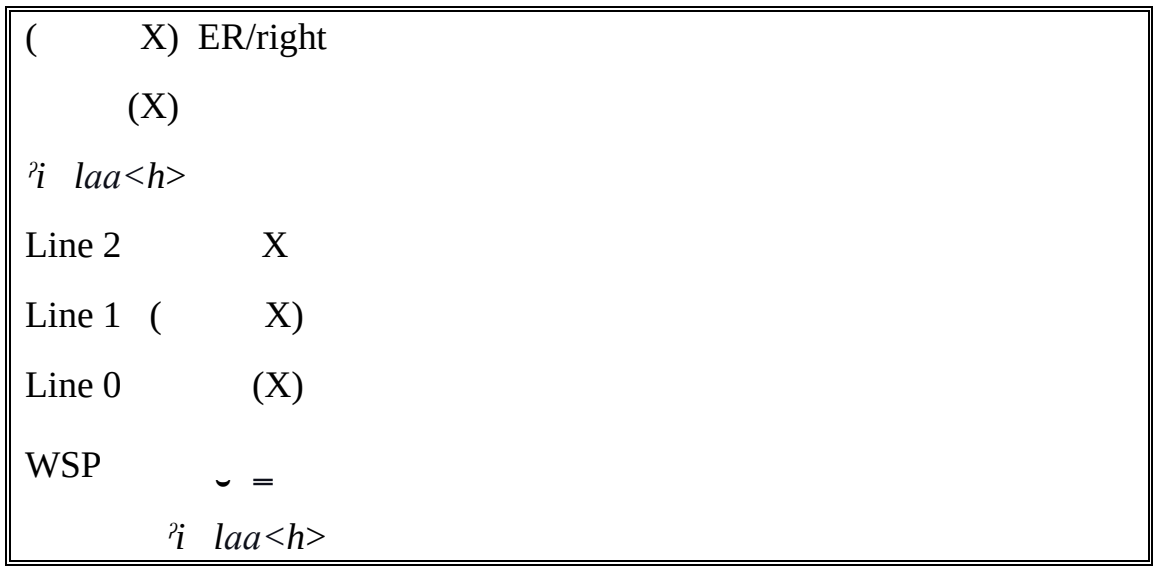


Figure (4.130): The Bracketed Grid of the Word / ʔi laa<h>/

This line */ʔiŠ rab ɛ a la mah lak wiŠ kuril ʔi laah /* is a tetrameter line, and it contains the following rhythmic patterns: two trochaic feet, notated as ¯ ˇ, one dactylic, notated as ¯ ˇ ˇ, and one iambic, notated as ˇ ¯.

/laa zim/ is composed of two syllables with a heavy-heavy syllable pattern. Stress is received by the initial heavy syllable. The stress pattern is (_' _). Metrical rules of foot construction designate the final consonant as extrametrical, then one metrical foot can be built on the initial syllable and the following syllable.

(X) ER/right

(X .)

laa zi<m>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

laa zi<m>

Figure (4.131): The Bracketed Grid of the Word /*laa zi<m>*/

This word */tiš kur*/, contains two heavy syllables. The first heavy syllable is stressed. The (_' _) is the word stress pattern. The final consonant is made extrametrical, then one foot is constructed by applying the metrical rules of foot construction.

(X) ER/right

(X .)

tiš ku<r>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

tiš ku<r>

Figure (4.132):The Bracketed Grid of the Word / *tišku<r>* /

/rab bak/ is a disyllabic word with a heavy-heavy syllable pattern. According to the IA word stress feature, the initial heavy syllable attracts stress, producing the following stress pattern: (_' _). One foot can be built on the present word after making the final consonant of the last

syllable extrametrical in the light of the metrical rules of foot construction.

(X) ER/right

(X .)

rab ba <k>

Line 2 X

Line 1 (X)

Line 0 (X .)

WSP _ _

rab ba <k>

Figure (4.133):The Bracketed Grid of the Word / *rab ba <k>*/

/ʔa ba dan/ is a trisyllabic word. It has a light-light-heavy syllable pattern. Stress is placed over the initial light syllable. The stress pattern for this word is (◡' ◡ _). For this word, metrical rules form one metrical foot after rendering the final consonant extrametrical.

(X) ER/right

(X . .)

ʔa ba da<n>

Line 2 X

Line 1 (X)

Line 0 (X . .)

WSP ◡ ◡ _

ʔa ba da<n>

Figure (4.134): The Bracketed Grid of the Word /*ʔa ba da<n>*/

This word /*tin saah* / is preceded by the negation particle */maa*/. The negator */maa* / usually takes a pre-verbal position even though it can precede nouns in CA (Dendane and Dendane, 2012,p.8). It consists of

one heavy syllable, as a functional word it is not stressed, resulting in the following stress pattern: (.). /*tin saah* /is composed of two syllables with a heavy-superheavy syllable pattern. The final superheavy syllable receives stress, hence producing the following stress pattern: (_ = '). Metrical rules form two feet: one is over the remaining heavy syllable after making the final consonant extrametrical, and the second is over the initial heavy syllable.

Figure (4.135): The Bracketed Grid of the Word / *tin saa<h>* /

This line */laa zim tiš kur rab bak ʾa ba dan maa tin saah*/ is a pentameter line with the following rhythmic patterns: three trochaic feet, notated as ¯ ˇ, a dactylic foot, notated as ¯ ˇ ˇ, and an iambic foot, notated as ˇ ¯.

Chapter Five

Discussion of the Results

5.1 Introduction

This chapter summarizes the main results arrived at in the light of the analyzed data according to H95's bracketed grid model. To verify the hypotheses and objectives of the present study which are already proposed in the first chapter, eight IA nursery rhymes are chosen to be analyzed metrically. Accordingly, the results of the analysis are discussed and computed in the current chapter.

5.2 Discussion of the Results

After analyzing eight IA nursery rhymes by applying H95's bracketed grid model, the results which are achieved in each IA nursery rhyme and explained in the coming pages are discussed depending on the following points:

1. The total of words which are analyzed metrically in each nursery rhyme

2. Stress placement and metrical foot construction on these words

3. The stressed syllables and the type of rhythmic pattern within each line

4. The total of functional words which are analyzed syntactically without any effect on the type of rhythm and meter in each nursery rhyme

As the nursery rhymes are arranged in the previous chapter, the results are discussed starting from the first nursery rhyme to the eighth one, as follows:

The total of words analyzed metrically in the first nursery rhyme is eleven words. They are categorized into monosyllabic, disyllabic, and trisyllabic words, these words have the following stress patterns: (◡ ◡), (⎯ ⏑), (⏑ ⎯), (⎯ ⎯), (⎯ ⎯ ⏑), (⏑ ⎯ ⏑), (⎯ ⏑), (⏑ ⎯), (⎯ ⏑), (⏑ ⎯ ⏑).

Stress placement falls on three positions; initially, pre-finally, and finally. The placement of stress and the metrical rules of foot construction on the above syllable patterns are displayed in the table below:

Table (5.1): Stress Placement and Metrical Rules Application of the First Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical rules application
ba l i	◡ ◡	Initially	-Constructing an individual foot over the word -Applying ER/right
bal buul	⎯ ⎯	Finally	-Building two metrical feet over the word -Making the final consonant as extrametrical - Applying ER/right.
Ši ƒit	◡ ⎯	Initially	-Designating the final consonant as extrametrical -Building one metrical foot over the word -Applying ER/right
Ɛaṣ ƒuur	⎯ ⎯	Finally	-Rendering the final consonant of the second syllable extrametrical -Constructing two feet over this word: one occurs over the final remaining heavy syllable, whereas the second one occurs over the initial heavy syllable -Applying ER/right

(Cont.)

yin ɠur	– –	Initially	-Building one metrical foot over the word -Making the final consonant of the second syllable as extrametrical -Applying ER/right
biṭ ṭaa sa	– – ◡	Pre-finally	-Constructing two metrical feet over the word: one foot is over the pre-final heavy and the following light syllables, and the second is over the initial heavy syllables -Applying ER/right
ƶa lii bu	◡ – ◡	Pre-finally	-Building an individual foot over the pre-final heavy syllable and the following light syllable -Skipping over the initial light syllable -Applying ER/right
yaa sa	– ◡	Initially	-Structuring one foot over the word. -Applying ER/right.
qa bur	◡ –	Initially	-Designating the final consonant as extrametrical -Building one metrical foot over the word -Applying ER/right
tii ti	– ◡	Initially	-Constructing one metrical foot over the word -Applying ER/right
ƶa bii bi	◡ – ◡	Pre-finally	-Skipping over the initial light syllable -Forming one metrical foot over the pre-final heavy syllable and the following light syllable -Applying ER/right

By looking at the table above, it seems that the most frequent words in the first nursery rhyme are those having the disyllabic structure. The trisyllabic words are less frequent. Even though disyllabic words and trisyllabic are given different stress patterns but the first syllable is assigned stressed unless the word contains the following syllable structure: (CV:) or (CVCC). On the other hand, the metrical rules which are applied are: ER/right, Extrametricality, and Priority Clause Principle.

ER/right is applied to all words while Extrametricality is applied only in the case of words ending with a consonant. Also, the Priority Clause Principle is applied only in the case of words with an initial unstressed light syllable.

The first nursery is built on three types of rhythmic patterns: trochaic, iambic, and dactylic. The distribution of rhythmic patterns in each line is shown below:

Table (5.2): The Rhythmic Patterns of the First Nursery Rhyme

Poetic Line Number	Number of Feet (length of poetic line)	Types of Feet (rhythmic pattern)	Notation
1	Dimeter	1.Trochaic 2.Iambic	1. ¯ ˇ 2. ˇ ¯
2	Monometer	-Trochaic	¯ ˇ
3	Dimeter	1.Trochaic 2.Iambic	1.¯ ˇ 2.ˇ ¯
4	Monometer	-Trochaic	¯ ˇ
5	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇ ˇ 2. ¯ ˇ
6	Monometer	-Trochaic	¯ ˇ
7	Dimeter	-Two iambic	ˇ ¯
8	Monometer	-Trochaic	¯ ˇ
9	Dimeter	-Two trochaic	¯ ˇ
11	Dimeter	1.Trochaic 2.Iambic	1.¯ ˇ 2. ˇ ¯

Moreover, the seventh and eleventh lines have deviated since they end with one unstressed syllable. Lines 10,12 are not mentioned in the above table because they are composed of a functional word that does not influence the rhythmic patterns.

The functional words which are analyzed syntactically without having any effect on the type of rhythm and meter are shown below:

Table (5.3): The Syntactic Functions of the Grammatical Words of the First Nursery Rhyme

Grammatical words	Syntactic Function
ya	Vocative particle
maa	Interrogative particle
yaay	Interjection particle

The total of words analyzed metrically in nursery number two is eight words. They are categorized into disyllabic and trisyllabic words, these words result in the following stress patterns: (_ ◡), (◡ _), (_ _ _), (_ _ ◡), (_ _ ◡), (_ _ ◡), (_ _ ◡), (_ _ ◡).

According to syllable weight, stress attracts one of the following positions in the present nursery rhyme: it is placed on the initial syllable if the word does not have a long vowel or two consonants preceded by a short vowel; whereas the pre-final syllable is received stress since this syllable contains the long vowel, as shown below:

Table (5.4): Stress Placement and Metrical Rules Application of the Second Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical rules application
Šad da	_ ◡	Initially	- Forming one foot over the word -Applying ER/right
wa rid	◡ _	Initially	-Building an individual foot over the word. - Applying ER/right

(Cont)

zan nuu bal	_ _ _	Pre-finally	-Marking the final consonant as extrametrical -Constructing two feet over the word: one foot occurs on the pre-final syllable and the last syllable, the second one is over the initial heavy syllable -Applying ER/right
ðiɕ kat ha	_ _ ◡	Initially	-Building two feet: one is over the initial heavy syallable, and the second is over the sequence of heavy-light syllables. -Applying ER/right
ɠoo mat ha	_ _ ◡	Initially	-Constructing two feet: one occurs over the initial heavy syallable, and the second is over the sequence of heavy-light syllables. -Applying ER/right
ɠaɛ dat ha	_ _ ◡	Initially	-Building two feet: one is over the initial heavy syallable, and the second occurs over the sequence of heavy-light syllables. -Applying ER/right
doo rat ha	_ _ ◡	Initially	-Forming two feet: one occurs over the initial heavy syallable, and the second occurs over the sequence of heavy-light syllables. -Applying ER/right
kul liɕ na	_ _ ◡	Initially	-Structuring two feet: one is built over the initial heavy syallable, and the second occurs over the sequence of heavy-light syllables. -Applying ER/right.

The first and the second lines in this nursery rhyme consist of several grammatical and lexical words. The grammatical words do not influence

the rhythmic patterns, the syntactic words with their functions are given below:

Table (5.5): The Syntactic Functions of the Grammatical Words of the Second Nursery Rhyme

Grammatical words	Syntactic Function
yaa	Vocative particle
min	Interrogative particle
hiy yal	Third Person Singular Pronoun

The table below indicates the rhythmic patterns that the nursery rhyme is constructed from. The second nursery rhyme is formed from three types of rhythmic patterns: trochaic, iambic, and dactylic patterns. The third and fifth lines have deviated since the third line contains a sequence of unstressed syllables while the fifth one ends with one an unstressed syllable.

Table (5.6): The Rhythmic Patterns of the Second Nursery Rhyme

Poetic Line Number	Number of Feet (length of poetic line)	Types of Feet (rhythmic pattern)	Notation
1	Dimeter	Two trochaic	¯ ˇ
2	Monometer	-Trocaic	¯ ˇ
3	Monometer	-Trochaic	¯ ˇ
4	Monometer	-Trochaic	¯ ˇ
5	Dimeter	-Two iambic	ˇ ¯
6	Monometer	-Trochaic	¯ ˇ
7	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇˇ 2. ¯ ˇ
8	Monometer	-Trochaic	¯ ˇ
9	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇˇ 2. ¯ ˇ
10	Monometer	-Trochaic	¯ ˇ

(Cont.)

11	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˘˘ 2. ¯ ˘
12	Monometer	-Trochaic	¯ ˘
13	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˘˘ 2. ¯ ˘
14	Monometer	Trochaic	¯ ˘
15	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˘˘ 2. ¯ ˘
16	Monometer	-Trochaic	¯ ˘

In the following table, eleven words are analyzed metrically in nursery number three, distributed on the following stress patterns: (_ _), (_ _ ◡), (_ ◡),(_ _ ◡), (_ _ _), (_ _ _ ◡) , (◡ _ _) ,(_ _), (◡ _ _ ◡),(_ ◡ ◡),(_ _ ◡). These words are classified into disyllabic, trisyllabic, and tetrasyllabic words.

Table (5.7): Stress Placement and Metrical Rules Application of the Third Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical rules application
hee laa	_ _	Finally	-Constructing two feet over the word; one occurs over the second heavy syllable, and the other occurs over the initial heavy syllable -Applying ER/right

(Cont.)

rum maa na	_ _ ◡	Pre-finally	-Building two feet over the word: one is built over the pre-final heavy syllable and the following light syllable, and the second is built over the initial heavy syllable - Applying ER/right
yum ma	_ ◡	Initially	-Constructing one foot over the word -Applying ER/right
zaɛ laa na	_ _ ◡	Pre-finally	- Forming two feet: one is over the pre-final heavy syllable and the following light syllable, and the second is over the initial heavy syllable -Applying ER/right
zan nuu bal	_ _ _	Pre-finally	-Marking the final consonant as extrametrical -Constructing two feet over the word: one foot occurs on the pre-final syllable and the last syllable, the second one is over the initial heavy syllable -Applying ER/right
raa ɗii ha	_ _ ◡	Pre-finaly	-Constructing two feet: one occurs over the pre-final heavy syllable and the following light, and the other occurs over the initial heavy syllable -Applying ER/right
ʾa buu hay	◡ _ _	Pre-finally	-Building one metrical foot over the pre-final heavy syllable and the remaining light syllable -Skipping over the initial light syllable -Making the final consonant extrametrical -Applying ER/right

(Cont.)

ṣaa yiġ	– –	Initially	-Building an individual foot over the word -Rendering the final consonant of the second heavy syllable extrametrical -Applying ER/right
ta raa Čii ha	◡ – – ◡	Pre-finally	-Structuring two feet over the word: the first one occurs on the third syllable and the last syllable, and the second is over the second heavy syllable -Applying Priority Clause Principle to the initial light syllable -Applying ER/right.
m iʗ ba su	– ◡◡	Initially	-Building one foot over the word -Applying ER/right
ġir daa la	– – ◡	Pre-Finally	-Constructing two metrical over the word: one occurs over the pre-final heavy syllable and the following light syllable, and the other occurs on the initial heavy syllable -Applying ER/right

Three words are analyzed syntactically without any effect on the rhythmic patterns, as shown below:

Table (5.8): The Syntactic Functions of the Grammatical Words of the Third Nursery Rhyme

Grammatical words	Syntactic Function
yaa	Vocative particle
min	Interrogative particle
hiy yal	Third Person Singular Pronoun

In the following table, lines 1,3,5,7,9,11,13 have deviated because they are composed of sequence of unstressed syllables. The rhythmic patterns of the third nursery are shown below:

Table (5.9): The Rhythmic Patterns of the Third Nursery Rhyme

Poetic Line Number	Number of Feet (length of poetic line)	Types of Feet (rhythmic pattern)	Notation
1	Dimeter	1.Iambic 2. Trochaic	1. ˇ ¯ 2. ¯ ˇ
2	Dimeter	Two trochaic	¯ ˇ
3	Monometer	Trochaic	¯ ˇ
4	Dimeter	Two trochaic	¯ ˇ
5	Dimeter	1.Iambic 2.Trochaic	1. ˇ ¯ 2. ¯ ˇ
6	Dimeter	TwoTrochaic	¯ ˇ
7	Monometer	Trochaic	¯ ˇ
8	Dimeter	Trochaic	¯ ˇ
9	Dimeter	1.Iambic 2.Trocaic	1.ˇ ¯ 2. ¯ ˇ
10	Dimeter	TwoTrochaic	¯ ˇ
11	Dimeter	Two trochaic	¯ ˇ
12	Dimeter	Two trochaic	¯ ˇ
13	Dimeter	1.Dactylic 2.Iambic	1. ¯ ˇ ˇ 2. ˇ ¯
14	Dimeter	Two Trochaic	¯ ˇ

Nineteen words in the fourth nursery rhyme are categorized into monosyllabic, disyllabic, trisyllabic, and tetrasyllabic words. Stress assignment and metrical rules application are illustrated in the table below:

Table (5.10): Stress Placement and Metrical Rules Application of the Fourth Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical rules application
ṭeer	═	Received stress naturally	-Constructing an individual foot over the word -Rendering the final consonant extrametrical -Applying ER/right
ǥan ni	– ◡	Initially	-Building a single foot over the word. - Applying ER/right
naa ƶak	– –	Initially	-Designating the final consonant as extrametrical -Building one metrical foot over the word -Applying ER/right
ṭay yir ni	– – ◡	Initially	-Constructing two feet: one is over the initial heavy syllable and the second one is over the pre-final heavy syllable and the following light syllable -Applying ER/right
wad dii ni	– – ◡	Pre-finally	-Building two metrical feet over the word; one occurs over the pre-final heavy syllable and the following light, whereas the other occurs over the initial heavy syllable -Applying ER/right

(Cont.)

lil ba saa tiin	– ◡ – =	Finally	-Constructing three feet over the word: one occurs over the final remaining heavy syllable, the second foot occurs over the pre-final heavy syllable , and the last one occurs over the initial heavy and the following light syllables -Rendering the final consonant of the final syllable extrametrical -Applying ER/right
ʾaŠ rab	– –	Initially	-Building an individual foot over the word -Applying extrametricality to the final consonant of the second heavy syllable -Applying ER/right
ṃaay	=	Received stress naturally	-Structuring one foot over the word. -Making the final consonant extrametrical -Applying ER/right.
ʾaa kul	– –	Initially	-Forming a single foot over the word -Designating the final consonant as extrametrical -Applying ER/right
tiin	=	Received stress naturally	-Marking the final consonant extrametrical -Building one foot over the word -Applying ER/right
far riʓ ni	– – ◡	Initially	-Constructing two feet: one is over the initial heavy syllable, and the second is over the pre-final heavy syllable and the following light syllable. -Applying ER/right

(Cont.)

far ʗa til	‒ ◡ ‒	Initially	-Applying extrametricality to the final consonant of the last heavy syllable -Forming one foot over the word -Applying ER/right
ʕiid	═	Received stress naturally	-Building one foot over the word -Marking the final consonant as extrametrical -Applying ER/right
lab bis ni	‒ ‒ ◡	Initially	-Constructing two metrical feet: one is over the initial heavy syllable, and the second is over the pre-final heavy syllable and the following light syllable -Applying ER/right
θoo bil	‒ ‒	Initially	-Building one foot over the word -Marking the final consonant as extrametrical -Applying ER/right
ja diid	◡ ═	Finally	-Skipping over the initial light syllable -Applying extrametricality to the final consonant -Constructing one foot over the word -Applying ER/right
kul may	‒ ‒	Initially	-Applying extrametricality to the final consonant of the second heavy syllable -Building one foot over the word -Applying ER/right
riid	═	Received stress naturally	-Making the final consonant extrametrical -Constructing one foot over this syllable -Applying ER/right

(Cont.)

baa bay	_ _	Initially	-Building one foot over the word -Rendering the final consonant extrametrical -Applying ER/right

The functional words mention below do not affect the rhythmic patterns of the poetic line. It is worth mentioning that the first word exists in the first line while the second word exists in the second line.

Table (5.11): The Syntactic Functions of the Grammatical Words of the Fourth Nursery Rhyme

Grammatical words	Syntactic Function
yaa	Vocative particle
ɛa la	Preposition

Through looking at the table below, it is clear that the present nursery is constructed from the dactylic-iambic-trochaic-spondaic rhythmic patterns with a deviation in the first, second, third, and sixth lines, this deviation is due to one of three reasons: an individual stressed syllable at the end of the line, or when a poetic line ends with an individual unstressed syllable, or when it contains a series of unstressed syllables.

Table (5.12): The Rhythmic Patterns of the Fourth Nursery Rhyme

Poetic Line Number	Number of Feet (length of Poetic line	Types of Feet (rhythmic pattern)	Notation
1	Trimeter	1.Spondaic 2.Iambic	1. ¯ ¯ 2. ˘ ¯
2	Dimeter	1.Trochaic 2.Dactylic	1. ¯ ˘ 2. ¯ ˘ ˘

(Cont.)

3	Dimeter	-Two iambic	˘ ¯
4	Tetrameter	1.Trochaic 2.Spondaic 3.Iambic	1. ¯ ˘ 2. ¯ ¯ 3.
5	Tetrameter	1.Trochaic 2.Spondaic 3.Iambic	1. ¯ ˘ 2. ¯ ¯ 3. ˘ ¯
6	Trimeter	-Two dactylic	¯ ˘ ˘
7	Trimeter	1.Dactylic 2.Trochaic 3.Iambic	1. ¯ ˘ ˘ 2. ¯ ˘ 3. ˘ ¯
8	Tetrameter	1.Trochaic 2.Spondaic 3.Iambic	1. ¯ ˘ 2. ¯ ¯ 3. ˘ ¯
9	Tetrameter	1.Trochaic 2.Spondaic 3.Iambic	1. ¯ ˘ 2. ¯ ¯ 3. ˘ ¯

Twenty words are the total sum of the words analyzed metrically in the fifth nursery rhyme. They are composed of different syllable structures, resulting in monosyllabic, disyllabic, and trisyllabic words with different stress patterns. The positions of stress and the metrical rules which are applied to investigate the foot construction are shown below:

Table (5.13): Stress Placement and Metrical Rules Application of the Fifth Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical rules application
ɛaṣ fuu ri	‒ ‒ ◡	Pre-finally	-Constructing two feet over the word: one-foot occurs over the pre-final heavy and the following light syllables, and the other occurs over the initial heavy syllable. -Applying ER/right
ʔii di	‒ ◡	Initially	-Building an individual foot over the word. - Applying ER/right
ṭaar	=	Received stress naturally	-Making the final consonant extrametrical -Building one metrical foot over the word -Applying ER/right
foo ɡil	‒ ‒	Initially	-Constructing a single foot over the word -Applying extrametricality to the final consonant -Applying ER/right
ʔaŠ jaar	‒ =	Finally	-Building two metrical feet over the word: one foot occurs on the final syllable, and the second foot occurs on the first syllable -Rendering the final consonant extrametrical -Applying ER/right

(Cont.)

ʾin zil	_ _	Initially	-Building one foot over the word -Making the final consonant as extrametrical -Applying ER/right
ɛaṣ fuur	_ =	Finally	-Building two feet over the word: one is built over the final remaining heavy syllable, and the other is built over the initial heavy syllable -Applying ER/right
ʾik lil	_ _	Initially	-Structuring one foot over the word. -Making the final consonant extrametrical -Applying ER/right.
ɛa bib	◡ _	Initially	-Building one foot over the word -Rendering the final consonant extrametrical -Applying ER/right
lay yak	_ _	Initially	-Marking the final consonant as extrametrical -Building a single foot over the word -Applying ER/right
Šuur	=	Received stress naturally	-Rendering the final consonant extrametrical -Constructing one foot over the word -Applying ER/right
čaa niz	_ _	Initially	-Building one foot over the word -Making the final consonant extrametrical -Applying ER/right
ġay yir	_ _	Initially	-Designating the final consonant as extrametrical -Constructing one foot over the word -Applying ER/right

(Cont.)

rab bee ta	_ _ ˘	Pre-finally	-Constructing two feet: one foot occurs over the pre-final heavy syllable and the following light syllable, and the second occurs over the initial heavy syllable -Applying ER/right
lam man	_ _	Initially	-Making the final consonant extrametrical -Constructing one foot over the word -Applying ER/right
ku bar	˘ _	Initially	-Rendering the final consonant extrametrical -Building one foot over the word -Applying ER/right
wit ray yaŠ	_ _ _	Initially	-Building two feet: one is over the initial heavy syllable and the other is over the pre-final heavy syllable and the remaining light syllable -Marking the final consonant as extrametrical -Applying ER/right
gaa mi	_ ˘	Initially	-Constructing an individual foot over the word -Applying ER/right
nag gir	_ _	Initially	-Building one foot over the word -Designating the final consonant as extrametrical -Applying ER/right
bix duu di	_ _ ˘	Pre-finally	-Constructing two metrical feet; one foot occurs on the second syllable and the last one, and the second foot occurs on the first heavy syllable -Applying ER/right

The coming table shows the functional words that exist in the fifth nursery rhyme and does not affect the types of rhythmic patterns.

Table (5.14): The Syntactic Functions of the Grammatical Words of the Fifth Nursery Rhyme

Grammatical Words	Syntactic Function
min	Preposition
yaa	Vocative particle
ɛa la	Preposition

Table (5.15): The Rhythmic Patterns of the Fifth Nursery Rhyme

Poetic Line Number	Number of Feet (length of poetic line)	Types of Feet (rhythmic pattern)	Notation
1	Trimeter	- Iambic -Trochaic	1.ˇ ¯ 2. ¯ ˇ
2	Trimeter	1.Two iambic 2.Anapestic	1. ˇ ¯ 2. ˇ ˇ ¯
3	Trimeter	1.Two trochaic 2.Iambic	1. ¯ ˇ 2. ˇ ¯
4	Tetrameter	-Three trochaic	¯ ˇ
5	Trimeter	-Three iambic	ˇ ¯
6	Dimeter	1.Iambic 2.Trochaic	1.ˇ ¯ 2. ¯ ˇ
7	Trimeter	1.Two trochaic 2.Dactylic	1. ¯ ˇ 2. ¯ ˇ ˇ
8	Trimeter	1.Trochaic 2.Dactylic 3.Trochaic	1. ¯ ˇ 2. ¯ ˇ ˇ 3. ¯ ˇ

As shown above, eight lines are composed of four types of rhythmic patterns. Besides, lines 1,4,5,6 have deviated for the same reasons mentioned earlier.

In the sixth nursery, twenty-five words are analyzed metrically. They are categorized into four types of syllable structure: monosyllabic, disyllabic, trisyllabic, and tetrasyllabic words. The syllable which has the long vowel receives stress, if there is any, otherwise on the initial syllable.

Table (5.16): Stress Placement and Metrical Rules Application of the Sixth Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical Rules Application
ġ*a zaa la*	◡ – ◡	Pre-finally	-Constructing a single foot over the pre-final heavy syllable and the following light syllable -Applying Priority Clause Principle to the initial light syllable -Applying ER/right
ġ*az zi loo k i*	–◡ – ◡	Pre-finally	-Building two feet: one occurs on the third syllable and the last syllable, and the second foot occurs on the initial syllable and the second syllable. - Applying ER/right
bil ṃaay	– =	Finally	-Making the final consonant of the second syllable extramtrical -Building two metrical feet over the word; one is over the final heavy syllable and the following is over the initial heavy syllable -Applying ER/right

(Cont.)

daɛ bi loo ki	– ◡ – ◡	Pre-finally	-Constructing two feet; one over the pre-final syllable and the last syllable, and the second is over the initial syllable and the second light syllable -Applying ER/right
gaaɛ da	= ◡	Initially	-Forming one foot over the superheavy syllable and the following light syllable -Applying ER/right
Šaṭ	–	Received stress naturally	-Constructing one foot over the word -Applying ER/right
gaaɛ dat	= –	Initially	-Forming one foot over the superheavy syllable and the remaining light syllable -Making the final consonant of the last syllable extrametrical -Applying ER/right
ti ma Šaṭ	◡ ◡ –	Initially	-Making the final consonant of the last syllable extrametrical -Building one foot over the word -Applying ER/right
ʾi jaa ha	◡ – ◡	Pre-finally	-Building one metrical foot over the second syllable and the last one -Skipping over the initial light syllable -Applying ER/right
nuu mi	– ◡	Initially	-Constructing a single foot over the word -Applying ER/right

(Cont.)

ɠal lil h a	– – ◡	Initially	-Building two feet over the word; one is over the initial heavy syllable, and the other occurs over the pre-final heavy syllable and the following light syllable -Applying ER/right
ɠuu mi	– ◡	Initially	-Structuring one foot over the word. -Applying ER/right.
ɠal lat la	– – ◡	Initially	-Forming two feet over the word; one occurs on the initial heavy syllable, and the other occurs over the pre-final heavy syllable and the following light syllable -Applying ER/right
ɠuum	═	Received stress naturally	-Applying extrametricality to the last consonant -Constructing one foot over the word -Applying ER/right
haa ð a	– ◡	Initially	-Building one foot over the word -Applying ER/right
ƈi ṣ aa n i	◡ – ◡	Pre-finally	-Applying Priority Clause Principle to the initial light syllable -Forming one foot over the pre-final heavy syllable and the following light syllable -Applying ER/right
ʾa Šid da	◡ – ◡	Initially	-Constructing two feet over the word: one occurs over the initial light syllable, and the second one occurs over the pre-final heavy and the following light syllables -Applying ER/right

(Cont.)

war kab	– –	Initially	-Building A single foot over the word -Applying extrametricality to the final consonant of the last syllable -Applying ER/right
si kar kab	◡ – –	Initially	-Building two feet: one is over the initial light syllable, while the second one is over the pre-final heavy syllable and the remaining light one -Making the final consonant extrametrical -Applying ER/right
si kar ka bil	◡ – ◡ –	Initially	-Building two feet over the word; one foot occurs on the first syllable, whereas the second one occurs on the second syllable and the last two syllables -Making the final consonant of the final syllable extrametrical -Applying ER/right
bar riiy ya	– = ◡	Pre-finally	-Forming two feet: one is over the pre-final superheavy syllable and the following light one, the second foot is over the initial heavy syllable -Applying ER/right
tib Čiin	– =	Finally	-Designating the final consonant of the last syllable as extrametrical -Constructing two feet: one foot occurs over the remaining heavy syllable, the other one occurs over the initial heavy syllable -Applying ER/right

(Cont.)

ʔib Či	– ˘	Initially	-Structuring one foot over the word -Applying ER/right
juu liČ	– –	Initially	-Marking the final consonant of the last syllable as extrametrical -Building one foot over the final heavy syllable and the remaining light syllable -Applying ER/right
bar baɛ miiy ya	– – = ˘	Pre-finally	-Forming three feet over the word: first foot occurs over the pre-final superheavy syllable and the following light syllable, the second one is located on the second syllable, whereas the last foot occurs over the initial heavy syllable -Applying ER/right

It is worth noting that extrametricality is blocked in the case of a monosyllabic word with a heavy syllable structure to avoid degenerated foot construction, as shown below:

(X)⟵——— Degenerated foot

Ša<ṭ>

Three functional words that do not influence the rhythmic patterns are displayed in the table below:

Table (5.17): The Syntactic Functions of the Grammatical Words of the Sixth Nursery Rhyme

Grammatical Words	Syntactic Function
ɛa laŠ,ɛ a lil, ɛ a lay ya	Prepositions

(Cont.)

maa	Negation particle
laa	Negation particle

Lines 1,2,3,5,7,11,12,13,14 have deviated for the same reasons mentioned earlier. The poetic line with the number of feet and their types are shown below:

Table (5.18): The Rhythmic Patterns of the Sixth Nursery Rhyme

Poetic Line Number	Number of Feet (length of poetic line)	Types of Feet (rhythmic pattern)	Notation
1	Dimeter	1.Iambic 2.Trochaic	1. ˇ ¯ 2. ¯ ˇ ˇ
2	Dimeter	1.Iambic 2.Trochaic	1. ˇ ¯ 2. ¯ ˇ
3	Monometer	-Trochaic	¯ ˇ
4	Dimeter	1.Trochaic 2.Dactylic	1. ¯ ˇ 2. ¯ ˇ ˇ
5	Dimeter	-Two Iambic	ˇ ¯
6	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇ ˇ 2. ¯ ˇ
7	Dimeter	-Dactylic	¯ ˇ ˇ
8	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇ ˇ 2. ¯ ˇ
9	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇ ˇ 2. ¯ ˇ
10	Monometer	-Dactylic	¯ ˇ ˇ
11	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇ ˇ 2. ¯ ˇ ˇ
12	Monometer	-Iambic	ˇ ¯
13	Dimeter	-Two trochaic	¯ ˇ
14	Monometer	Trochaic	¯ ˇ

The next nursery is composed of 15 words that are analyzed metrically. The fifteen words are classified into monosyllabic, disyllabic, and trisyllabic words. The table below illustrates the stress placement and the metrical rules which are applied to each word:

Table (5.19): Stress Placement and Metrical Rules Application of the Seventh Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical rules application
ʾa maan	– =	Finally	-Skipping over the initial light syllable -Constructing one foot over the remaining heavy syllable -Marking the final consonant as extrametrical -Applying ER/right
ʿin na	– ◡	Initially	-Building an individual foot over the word. - Applying ER/right
ʿin na til	– ◡ –	Initially	-Making the final consonant extramtrical -Building one metrical foot over the word -Applying ER/right
baṣ ra	– ◡	Initially	-Constructing a single foot over the word -Applying ER/right
ʿas ra	– ◡	Initially	-Forming one metrical foot over the word. -Applying ER/right

(Cont.)

wil yoom	– =	Initially	-Constructing two feet over the word: one is over the remaining heavy syllable, and the other is over the initial heavy syllable -Designating the final consonant of the last syllable as extrametrical -Applying ER/right
ɛii di	– ◡	Initially	-Building an individual foot over the word -Applying ER/right
fus taan	– =	Finally	-Structuring two feet: one occurs over the remaining heavy syllable and the second occurs over the initial heavy syllable -Applying extrametricality to the final consonant of the final superheavy syllable -Applying ER/right.
ja dii di	◡ – ◡	Pre-finally	-Applying Priority Clause Principle to the initial light syllable -Constructing a single foot over the pre-final heavy syllable and the following light syllable -Applying ER/right
fus taa ni	– –◡	Pre-finally	-Forming two feet over the word: one occurs over the pre-final heavy syllable and the following light syllable, the other occurs over the initial heavy syllable -Applying ER/right
kaŠ kaŠ	– –	Initially	-Building one foot over the word -Making the final consonant of the second syllable extrametrical -Applying ER/right

(Cont.)

bil war dim	_ _ _	Initially	-Marking the final consonant of the last syllable as extrametrical -Constructing two feet over the word: one is built over the initial heavy syllable and the second is built over the pre-final heavy syllable and the remaining light syllable -Applying ER/right
la ṭ ṭaŠ	_ _	Initially	-Constructing an individual foot over the word -Designating the final consonant of the second syllable as extrametrical -Applying ER/right
fus taa nim	_ _ _	Pre-finally	-Building two feet over the word: one occurs over the second syllable and the last one, whereas the second foot occurs on the initial syllable -Making the final consonant of the last syllable extrametrical -Applying ER/right
Šaq qaq	_ _	Initially	-Making the final consonant of the final syllable extrametrical -Building one foot over the word -Applying ER/right

As it is mentioned previously, the grammatical words do not influence the rhythmic patterns. The present nursery contains four functional words which are shown below:

Table (5.20): The Syntactic Functions of the Grammatical Words of the Seventh Nursery Rhyme

Grammatical Words	Syntactic Function
yaa	Vocative particle
ɛa lee na	Preposition
lalala	Interjection particle
heyhey	Interjection particle

Lines 5,7,9,11,13 are not mentioned in the table below since these lines consist of an interjection particle which is an unstressed word and has no effect on the rhythmic patterns. Additionally, lines 6,8,12 have deviated because they end with one unstressed syllable.

Table (5.21): The Rhythmic Patterns of the Seventh Nursery Rhyme

Poetic Line Number	Number of Feet (length of poetic line)	Types of Feet (rhythmic pattern)	Notation
1	Trimeter	1.Iambic 2.Trochaic 3.Iambic	1. ˇ ¯ 2. ¯ ˇ 3. ˇ ¯
2	Trimeter	1.Dactylic 2.Trochaic 3.Iambic	1. ¯ ˇ ˇ 2. ¯ ˇ 3. ˇ ¯
3	Dimeter	1.Trochaic 2.Iambic	1. ¯ ˇ 2. ˇ ¯
4	Dimeter	1.Iambic 2.Trochaic	1. ˇ ¯ 2. ¯ ˇ
6	Dimeter	-Two iambic	ˇ ¯
8	Dimeter	-Two iambic	ˇ ¯
10	Dimeter	1.Dactylic 2.Trochaic	1. ¯ ˇ ˇ 2. ¯ ˇ
12	Dimeter	-Two iambic	ˇ ¯

The last nursery rhyme in the present study is ‘a white follower’. As shown in the following table, the total of words analyzed metrically is twenty-six words. These words are classified into disyllabic words and trisyllabic words. Regardless of the weight of the initial syllable, stress is received by first syllable if there is no sequence of two consonants preceded by a short vowel or there is no long vowel at any syllable of the word.

Table (5.22): Stress Placement and Metrical Rules Application of the Eighth Nursery Rhyme

Word	Word stress pattern	Stress placement	Metrical rules Application
ʾaa ni	– ◡	Initially	-Constructing a single foot over the word -Applying ER/right
war da	–◡	Initially	-Building an individual foot over the word. - Applying ER/right
bee ḍa	–◡	Initially	-Building one metrical foot over the word -Applying ER/right
Šak li	–◡	Initially	-Forming a single foot over the word -Applying ER/right
ja miil	– =	Finally	-Building one metrical foot over the remaining heavy syllable -Applying Priority Clause Principle to the initial light syllable - Designating the final consonant as extrametrical -Applying ER/right
ʾaƨ la	– ◡	Initially	-Constructing a single foot over the word -Applying ER/right

(Cont.)

ja maa li	˘ – ˘	Pre-finally	-Building an individual foot over the pre-final heavy syllable and the following light syllable -Skipping over the initial light syllable -Applying ER/right
lam man	– –	Initially	-Structuring one foot over the word -Making the final consonant extrametrical -Applying ER/right.
ʾa miil	˘ =	Finally	-Skipping over the initial light syllable -Marking the final consonant as extrametrical -Building one foot over the remaining heavy syllable -Applying ER/right
ʾaṭ faal	– =	Finally	-Constructing two feet: one is over the final remaining heavy syllable, and the second is over the initial heavy syllable -Marking the final consonant as extrametrical -Applying ER/right
ki baar	˘ =	Finally	-Applying Priority Clause Principle to the initial light syllable -Making the final consonant extrametrical -Building a single foot over the remaining heavy syllable -Applying ER/right
ʾiŠ ra bul	– ˘ –	Initially	-Applying extrametricality to the final consonant of the last syllable -Building an individual foot over the word -Applying ER/right
ʿa liib	˘ =	Finally	-Applying Priority Clause Principle to the initial light syllable -Marking the final consonant as extrametrical -Constructing one foot over the remaining heavy syllable -Applying ER/right

(Cont.)

liṣ ṣiʔ ʔa	_ _ ◡	Initially	-Constructing two metrical feet: one is formed over the initial heavy syllable, whereas the second one is formed over the pre-final heavy syllable and the following light one -Applying ER/right
lil quw wa	_ _ ◡	Initially	-Forming two metrical foot; one occurs over the initial heavy syllable, and the other occurs over the second heavy syllable and the following light syllable -Applying ER/right
ʔis ʔa lul	_ ◡ _	Initially	-Marking the final consonant of the last syllable as extrametrical -Constructing one foot on the first syllable and the last two syllables -Applying ER/right
ṭa bib	◡ =	Finally	-Skipping over the initial light syllable -Applying extrametricality to the final consonant -Constructing one foot over the remaining heavy syllable -Applying ER/right
ʔiŠ rab	_ _	Initially	- Rendering the final consonant extrametrical -Building one foot over the initial heavy syllable and the remaining light syllable -Applying ER/right
mah lak	_ _	Initially	-Marking the final consonant as extrametrical -Forming one foot on the word -Applying ER/right
wiŠ kur	_ _	Initially	-Building one foot on the first syllable and the last one -Marking the last consonant as extrametrical -Applying ER/right

(Cont.)

ʔi laah	◡ =	Finally	-Constructing one foot over the remaining heavy syllable -Rendering the final consonant extrametrical -Skipping over the initial light syllable -Applying ER/right
laa zim	_ _	Initially	-Applying extrametricality to the final consonant of the last syllable -Building one foot over the word -Applying ER/right
tiš kur	_ _	Initially	-Building one foot over the word -Making the final consonant of the second syllable extrametrical -Applying ER/right
rab bak	_ _	Initially	-Forming one foot over the word -Rendering the final consonant of the second syllable extrametrical -Applying ER/right
ʔa ba dan	◡ ◡_	Initially	-Building one foot over the word -Making the final consonant extrametrical -Applying ER/right
tin saah	_ =	Finally	-Constructing two metrical feet; one is over the final remaining heavy syllable, and the second is over the initial heavy syllable -Designating the final consonant as extrametrical Applying ER/right

Moreover, this nursery contains four grammatical words analyzed syntactically. The grammatical words and their functions are shown below:

Table (5.23): The Syntactic Functions of the Grammatical Words of the Eighth Nursery Rhyme

Grammatical words	Syntactic Function
maa	Exclamatory particle
yaa	Vocative particle
ɛ a la	Preposition
maa	Negation particle

The present nursery rhyme is structured from three rhythmic patterns; dactylic, trochaic, and iambic. Besides, the tetrameter rhythmic meter is the most frequent one. The table below illustrates the rhythmic patterns from which the eighth nursery rhyme is composed.

Table (5.24): The Rhythmic Patterns of the Eighth Nursery Rhyme

Poetic Line Number	Number of Feet (length of poetic line)	Types of Feet (rhythmic pattern)	Notation
1	Pentameter	1.Four trochaic 2-Iambic	1. ¯ ˇ 2. ˇ ¯
2	Tetrameter	1.Dactylic 2.Two trochaic 3.Iambic	1. ¯ ˇ ˇ 2. ¯ ˇ 3. ˇ ¯
3	Tetrameter	1.Two iambic 2.Dactylic 3.Iambic	1. ˇ ¯ 2. ¯ ˇ ˇ 3. ˇ ¯
4	Tetrameter	1.Three dactylic 2.Iambic	1. ¯ ˇ ˇ 2. ˇ ¯
5	Tetrameter	1.Two trochaic 2.Dactylic 3.Iambic	1. ¯ ˇ 2. ¯ ˇ ˇ 3. ˇ ¯
6	Pentameter	1.Three trochaic 2.Dactylic 3.Iambic	1. ¯ ˇ 2. ¯ ˇ ˇ 3. ˇ ¯

To sum up, the sum total of words analyzed metrically is 135 words. The most frequent category is disyllable words while the less frequent

words are tetrasyllabic. The numbers and percentage of words category are illustrated below:

Table (5.25): The Number and Percentage of the Word Categories

Word Classification	No.	Percentage
Monosyllabic	8	5.925
Disyllabic	75	55.555
Trisyllabic	46	34.074
Tetrasyllabic	6	4.444
Total	135	100

Then, the sum total of lines are 85 lines analyzed metrically knowing that the total of lines is 92 line but 7 of these lines are composed of functional words that do not influence the type of rhythmic patterns. Below is a table that indicates in numbers and percentage the rhythmic patterns of these lines:

Table (5.26): The Number and Percentage of Rhythmic Patterns

Rhythmic Patterns	No	Percentage
Trochaic	30	35.294
Dactylic-trochaic	11	12.941
Iambic	10	11.764
Iambic-trochaic	7	8.235
Trochaic-iambic	5	5.882
Dactylic	3	3.529
Trochaic-spondaic-iambic	4	4.705
Dactylic-Trochaic- iambic	3	3.529
Trochaic-Dactylic	3	3.529
Trochaic-Dactylic-iambic	2	2.352
Dactylic- iambic	2	2.352
Trochaic-dactylic-trochaic	1	1.176
Iambic-dactylic-iambic	1	1.176

(Cont.)

Iambic-anapestic	1	1.176
Spondaic-iambic	1	1.176
Iambic-trochaic-iambic	1	1.176
Total	85	100

As it is mentioned previously, the length of the foot refers to the stressed syllables number within each line (meter or the regularity of the rhythm). The number and percentage of feet (the length of the poetic line) is shown below:

Table (5.27): The Number and Percentage of the Length of the Poetic Lines

Poetic Line Length	No.	Percentage
Monometer	19	22.352
Dimeter	44	51.764
Trimeter	11	12.941
Tetrameter	9	10.588
Pentameter	2	2.352
Total	85	100

It is obvious from the last two tables above that the dimeter trochaic rhythmic meter is the most frequent pattern.

Chapter Six

Conclusions, Recommendations, and Suggestions

6.1 Conclusions

The present study has investigated the metrical structure of eight IA nursery rhymes. It is clear that by applying H95's metrical theory, the bracketed grid model, we can study the stress patterns of IA nursery rhymes by adopting different rules within the parametric metrical theory. The conclusions revealed in this study can be summarized as follows:

1. IA is a quantity-sensitive language variety (i.e. dialect) since it depends on the syllable structure (word construction) in locating stress, in other words, it depends on the syllable weight in assigning stress placement.

2. Feet are parsed from the left to the right in which the syllable weight is represented from the final syllable to the first syllable. The degenerated foot is not allowed in IA.

3. The first hypothesis and the second one which say that the stress pattern and the rhythmic pattern of IA nursery rhymes are best accounted for by applying H95's metrical stress theory, the bracketed grid model are verified.

4. One hundred and thirty-five words are analyzed metrically. These words are divided into monosyllabic, disyllabic, trisyllabic, and tetrasyllabic words. The results showed that disyllabic words are more frequent with 55.55% of the total number of words while tetrasyllabic words are less frequent with 4.44% of the total number of words. Thus, it seems that there is an inverse relation between the rhymes words number of syllables and their frequency. Accordingly, the third hypothesis is accepted.

5. The results showed that poetic lines are structured from 16 types of rhythmic patterns, the most frequent type is the trochaic foot with 35.29% of 85 poetic lines. Concerning the length of each poetic line, the results showed that the dimeter line or those lines with two stressed syllables are the most frequent with 51.76% of 85 poetic lines. Hence, the fourth hypothesis is verified and accepted.

6.2 Recommendations

According to the conclusions mentioned above, the following points are recommended:

1. Follow the procedure which is used in the current study to analyze the metrical structure of other IA nursery rhymes since this study is limited to only eight IA nursery rhymes.

2. Since the use of the metrical theory of H95 has succeeded in assigning stress and constructing metrical feet over the IA nursery rhymes words, it is recommended that this study is a suitable reference for the researchers who are interested in applying rules and parameters of metrical theory to other Arabic variants.

3. Learning English word stress is difficult for foreign learners so it is recommended to adopt the rules and parameters of metrical theory to teach stress of English words.

6.3 Suggestions

The following topics are suggested for future studies:

1. The current study is dedicated to analyzing the metrical structure of the words of eight IA nursery rhymes. Thus, it is suggested that a future work to analyze the metrical structure of poems which are written in MSA would be a rich study.

2. Iraqi variants include different dialects. Then, the present study is limited to assigning the stress patterns of IA nursery rhymes, future studies that integrate the stress patterns of non-Arabic Iraqi variants nursery rhymes as well are needed.

3. It is useful to follow the steps that are used in the present study to examine the rhythmic pattern of other Arabic dialects nursery rhymes.

4. Conducting a comparative study for investigating the similarities and differences in the metrical structure between IA and other Iraqi dialects is also needed.

Bibliograghy

Abdullah, A. B. & Talib, Z. N. (2009). The Meanings of Interjection in English and Arabic. *Adab Al-Basrah*, 50, 89-107.

Al-Abdely, A. (2011). Stress Patterns in an Iraqi Arabic Variant: a Metrical Approach. *Journal of Al-Anbar University of Language and Literature*, 5 (2), 379-402.

Al-Bataineh, H. (2020). The Syntax of Arabic Vocatives. *Brill's Journal of Afroasiatic Languages and Linguistics*, 12 (2), 1-33.

Al-Bay, N. (2001). Some Aspects of A Palestinian Arabic Variant and Standard English Patterns: A Metrical Approach. (MA Thesis). University of Jordon: Amman.

Al-Bazi, M. P. (2006). *Iraqi Dialect Versus Standard Arabic*. California: USA publishers.

Albuarabi, S. (2018). A linguistic History of Iraqi Arabic (Mesopotamian Arabic). *Journal of Advanced in Linguistics*, 9, 1371-1380.

Al. Hawary, M. T. (2011). *Modern Standard Arabic Grammar: a Learner's Guide*. London: Blackwell Publishing .

Al-Hindawi, F. H. & Muzhir H. DH (2016). A Phonological Study of Rhythm in Thomas Gray's Poetry. *Adab Al-Kufa*, 1 (29), 11-22.

Ali, A. Y. (1989). *The Holy Qur'an and Text Translation and Commentary*. Al-Murgab: That Es-Salasil Publishing.

Ali, Z. & Abd. Ghani, A. (2014). Stress Patterns in MSA: a Metrical Based Analysis. *World Journal of English Language*, 4 (4), 35-52.

Al-Khalesi, Y. M. (2001). *Modern Iraqi Arabic*. Washington, D.C.:Georgetown University Press.

Allison, Ch. (2001). *The Yezidi Oral Tradition in Iraqi Kurdistan*. Richmond; Surrey: Curzon Press.

Allison, Ch. (2010). Kurdish Oral Literature. Oral Literature of Iranian Languages: Kurdish, Pashto, Baluchi, Ossetic. *History of Persian Literature A*, 18, 33-69.

Al-Shebi, M. R. (1965). The Origins of the Words in Iraqi Dialect. *Paper Presented at the Cairo Conference*.

Al-Thamery, A. A. & Ibrahim, M. A. (2005). Word stress in Arabic: a Phonological Study from a Generative Perspective. *Journal of the College of Arts.* University of Basra, (38), 22-31

Berry, W. (1976). *Structural Functions in Music*. England Cliffs, NJ: Prentic-Hall Inc.

Betti, M. J. & Ulaiwi, W. A. (2018). Stress in English and Arabic: a Contrastive Study. *English Language and Literature Studies*, 8 (1), 83.

Biadsy, F. & Hirschberg, J. (2009). Spoken Arabic Dialect Identification Using Phonotactic Modeling. *Journal of Association for Computational Linguistics*, 22 (3), 53-61.

Bodden, V. (2010). Nursery Rhymes: Creative Education. USA: Minnesota.

Botton, Th. L. (1984). Rhythm. *American Journal of Psychology*. 6 (2), 145-238. Available At: https://doi.org/10.2307/1410948

Brosnhan, L. F. & Malemberg, B. (1970). *Introduction to Phonetics*. Cambridge: Cambridge University Press.

Burling, R. (1966). The Metrics of Children's verse: a cross-linguistic Study. *American Anthropologist*, 68 (6), 1418-1441.

Chomsky, N. & Halle, M. (1968). *The Sound Pattern of English*. NewYork: Harper and Row.

Clarity, B. E., Karl, S. A. & Ronald, G. W. (1964). *A Dictionary of Iraqi Arabic: English-Arabic*. Washington, D.C.: Georgetown University Press.

Cowell, M. W. (1964). *A Reference Grammar of Syrian Arabic (based on the dialect of Damascus)*. Washington, DC: George University Press.

Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics*.London: Blackwell Publishing.

Davenport, M. &Durham H. (1998). *Introducing Phonetics and Phonology*. London: Arnold.

Dendane, Z. & Dendane, A. (2012).The Negation System in Arabic: An Issue for Translation. *Revue Maghrébine des Langues*, 8(1), 199-212.

Dimmendaal, G. J. (2012). Metrical Structure: A Neglected Property of Nelotic (and other Africal languages families). *Studies in Nilotic Linguistics*, 5, 1-26.

Dresher, B. E. (1996). Introduction to Metrical and Prosodic Phonology. In James, m. Demuth, K. (Eds), *Signal to Syntax: Bootstrapping*

from Speech to Grammar in Early Acquisition (pp.41- 55). Mahwah: Lawrence Erlbaum Associates Publisher.

Dufter, A. (2011). The Matter of Nursery Rhymes universal Verses Language-specific Patterns. In David, R. & Diemtmar, Z. (Eds), *Sounds and Systems: studies in structure and change* (p.241). Walter de.

Erwin, W. M. (2004). *A Short Reference Grammar of Iraqi Arabic*. Washington: Georgetown University Press.

Finnegan, R. (1992). Reflecting Back on Oral Literature in Africa: some Reconsideration after 21 year. *South Africa Journal of African Languages*, 12 (2). 39-47.

Fradin, B. (2003). Deriving the So-Called Delocutive Adverbs in French. *Paper read at the 10th International Morphology Meeting, Szentendre, Magyarorzag*. Availabe at:

http://www.llf.cnrs.fr/gens/Fradin/IMMIO-txt- form-pdf.

Fry, D. B. (1955). Duration and Intensity as Physical Correlates of Linguistic Stress. *Journal of the Acoustical Society of America*, 27 (4), 765-768.

Fry, D. B. (1958). Experiments in the Perception of Stress. *Language and Speech*, 1 (2), 126-152.

Gills, S. Durieus, G. & Daelemans, W. (1995). A Computational Model of P & P: Dresher & Kaye (1990). In F. Wijnen & M. Verrips (Eds), *Approaches to Parameter Setting*, (135-173). University of Antwerp, U.I.A.

Goldsmith, J. A. (1990). *Autosegmental and Metrical Phonology*. USA: Basil Blackwell.

Goldsmith, J. & Laks, B. (2010). Generative Phonology: its origin, its principles, and its successors. *The Cambridge History of Linguistics*.

Gonzalez, A. L. (2016). *Music And Language Development: Traits of Nursery Rhymes and Their Impact on Children's Language Development*. The Faculty of the Music Department, California Polytechnic State University, San Luis Obispo.

Graf, Z. B. (2001). *Length in Metrical Phonology*. (PhD dissertation). Eotvots Lorand Unoversity, Budapest.

Halle, M. & Clements, G. (1983). *Problem Book in Phonology*. *AWorkbook for Introductory Courses in Linguistics and in Modern Phonology*. Cambridge: MIT Press.

Hall, M. & Vergnaud, J. R. (1987). *An Essay On Stress*. Cambridge; Mass: MIT Press.

Hammond, M. (1984). *Constraining Metrical Theory: a Modular Theory of Rhythm and Destressing*. PhD Dissertation, University of California: Los Angeles.

Hammond, M. (1995). *Metrical Phonology*. Annual review of Anthropology, 24 (1), 313-342.

Hayes, B. 1(980). *A Metrical Theory of Stress Rules*. (PhD dissertation). MIT, New York: Garland Press.

Hayes, B. (1981). *A Metrical Theory of Stress Rules*. (Doctoral Dissertation). New York: Garland.

Hayes, B. (1983). A Grid based Theory of English Meter. *Linguistic Inquiry*, 14 (3), 357-393.

Hayes, B. (1984). The Phonology of Rhythm in English. *Linguistic Inquiry*, 15, 33-74.

Hayes, B. (1985). Iambic & Trochaic Rhythm in Stress. *Annual Meeting of the Berkeley Linguistics Society*, 11, 429-446.

Hayes, B. (1995). *Metrical Stress Theory : principles and case studies.* Chicago: University of Chicago Press.

Hobsbaum, P.(1996). *Meter, Rhythm, and Verse Form*. London: Rutledge.

Hogg, R. M. & McCully, C. B. (1987). *Metrical Phonology*: A Course Book. Cambridge: Cambridge University Press.

Holes, C. (1995). *Modern Arabic , Structure, functions, and varieties*. New York; London: Longman.

Hulst, H. V. D. (1984). *Syllable Structure and Stress in Dutch*. USA: Dordrecht, Foris.

Hulst, H. H. & Ewin, C. V. (2001). *The Phonological Structure of Words: An Introduction*. London: Cambridge University

Press.

Hulst, H. (2008). *Word Prosodic System in the Languages of Europe*. Walter de Gruyter, 20 (4).

Huneety, A. & Mashagba, B. (2016). Stress in Loan Words in Bedouin Jordanian Arabic in the North of Jordon: a Metrical Account. *SKASE Journal of Theoretical Linguistics*, 13 (3), 1336-782.

Hyman, L. (1975). *Phonology: Theory and Analysis*. New York , Holt, Rinehart and Winston.

Jameel, E. N. (2016). *The Metrical Structure of Some Short Qur'anic Chapters*. (MA Thesis). University of Basra, 42(6), 356-378.

Jasim, T. A. & Sharhan, Kh. Sh. (2013). Phonological Metathesis In Iraqi Arabic Dialect: a Synchronic Perspective. *Journal of the College of Languages (JCL)*, 1-24.

Jones, D. (1967). *An Outlined of English Phonetics*. Cambridge: CUP.

Kager, R. & Visch, E. (1988). *Metrical Constituency and Rhythmic Adjustment*. Phonology, 21-71.

Kager, R. (1995). *The Metrical Theory of Word Stress*. Blackwell in Linguistics, 1, 367-402.

Kehoe, M. (1998). *Support for Metrical Stress Theory in Stress Acquisition*. Clinical Linguistics &phonetics, 12 (1), 1-23.

Khalifa, M. (2017). *A Contrastive Metrical Analysis of Main Word Stress in English and Cairence Colloquial Arabic*. Cambridge: British Library, Scholarly publishing.

Kroupova B. I. (2014). *Linguistic and Methodological Aspects of English Nursery Rhymes*. (MA Thesis). Faculty of Education, Masaryk University.

Lesrtric, S. (2006). Nursery Rhymes of Mesopotamian Arabs. *Lestopis Matrice Srpske,* 478 (5), 942-963.

Liberman, M.& Prince (1977). On Stress and Linguistic Rhythm. *Linguistic Inquiry*, 8 (2). 249-336.

Macmillan , (2007). *Macmillan English Dictionary for advanced learner*. London: Macmillan Publisher.

Mahmoud, Z. A. (2015). *Aspects of Phonology of English Loan words in Jordanian Urban Arabic*: a Distinctive features, moraic, and metrical stress Analysis. (PhD dissertation). University of Leeds, Leeds.

McCatrthy, J. J. (1982). *Nonlinear Phonology: an overview*. Linguistics.

McCarthy, J. J. & Hayes, B. (2003). Metrical Phonology. In *International Encyclopedia of Linguistics*.(vol.3,pp.54-57).Oxford: Oxford University press.

Mohseni, B. (2008). *Arabic Oral Tradition and its Types*. Available at: https://www.magiran.com/paper/2038111?lang=en

Moutaouakil, A. (1989). *Pragmatic Function in a Functional Grammar of Arabic*. Berlin; Boston: De Gruyter Mouton.

Muhammed, M. (2018). The Problem of Some Multi-functions of the Arabic Particle 'Men' and 'Maa' with reference to Translation. *Journalof Al-Frahedies Art*, 1(34), 414-426.

Oostendorp, M. V. (1993). Formal Properties of Metrical Structure. *Sixth Conference of the European Chapter of the Association Computational Linguistics*, 322-331.

Opie, P. & Opie, L. A. (1997). *The Oxford Dictionary of Nursery Rhymes*. Oxford: Oxford University Press.

Pandey, P. K. (1989). Word Accentuation in Hindi. *Lingua*, 77 (1). 37-73.

Pearl, L. S. (2008). Putting the Emphasis on Unambiguous: the Feasibility of Data Filtering for Learning English Metrical Phonology. *BUCLD,* 32, 390-401.

Perlmutter, D. (1995): Phonological Quantity and Multiple Association. In Goldsmith, J. (Ed), *The Handbook of Phonological Theory*. Oxford: Blackwell, 307-317.

Prince, A. (1983). Relating to the Grid. *Linguistic Inquiry,*14, 19-100.

Ridha, M. (2015). *Crosslinguistic Influence in the Arabic of Iraqi Arabic-Swedish Children (5-7) in Sweden*. (MA Thesis). Faculty of Languages Department of Linguistics and Philology Arabic. UppsalaUniversity.

Roach, p. (2000). *English Phonetics and Phonology*. Cambridge: Cambridge University Press.

Roca, I. & Johnson, W. (1999). *A Course in Phonology*. Oxford: Blackwell.

Sayakhan, N. I. & Bradeley D. H. (2019). Nursery Rhyme as a Vehicle for Teaching English as Foreign Language. *Journal of University of Raparin*, 6 (1), 44-55.

Scheidng, C. M. (2016). *Nursery Rhymes and Children's Literature: A Fun Folly to Study*. Methodological and research Applications, University de Valéncia, Vol.6.

Selkirk, E. (1984). *Phonology and Syntax*. The Relation between Sound and Structure. Cambridge: MA, MIT Press.

Tanaka, S. (1997). Metrical Structure as an Organizing Principle of Phonological System. *English linguistics*, 14, 393-427.

Temple, Ch. Martinez, M. & Yokota, J. (2011). *Children's Book in Children's Hands: an Intriduction to Their Literature* (4th ed). New York: Pearson.

Toprak, F. A. (2008). Oral Narrating Tradition of the Arab Word: A Source of Inspiration for Miniature Paintings of Hariri's Maqamat. *Erciyes Üniversities Sosyal Bilimler Enstitüsü Dergisi*, 1(24). 105-121.

Wainwright, J. (2004). *Poetry: the Basics*. London: Rutledge.

Watson, J. (2011). Word Stress in Arabic. In Oostendrop, M., Ewin, C., Hume, E., & Rice, K. (Eds), *The Blackwell Companion to Phonology*, (vol.5, pp.2290-3018). Oxford: Blackwell.

Wilmsen, D. (2014). *Arabic Indefinites, Interrogatives, and Negators: A Linguistic History of Westren Dialects*. Oxford: OUP.

Zipes, J. Liss, P. Lynne, P. Peter, H. & Gillian, A. (2005). *The Norton Anthology of Children's Literature*. The Tradition in English. New York: W. W. Norton & Company, Ine.

Appendix 1

The Deviated Lines in the First Nursery Rhyme

/ba li ya bal buul/

/ba li /

/maa Ši ʃit ɛaṣ ʃuur/

/ba li /

/yin gur biṭ ṭaa sa/

/ba li /

7. */ʒa lii bu yaa sa/*

/ba li /

/ɛa la qa bur tii ti/

/yaay yaay/

11./*maa Ši ʃit ʒa bii bi/*

/yaay yaay/

Appendix 2

The Deviated Lines in the second Nursery Rhyme

/ *Šad da yaa wa rid /*

/*Šad da* /

3./ *min hiy yal wa rid* /

/ *Šad da* /

5. / *zan nuu bal wa rid* /

/ *Šad da* /

/ *ðiʗ kat ha wa rid* /

/ *Šad da* /

/ *ɠoo mat ha wa rid* /

/ *Šad da* /

/ *ɠaɛ dat ha wa rid* /

/ *Šad da* /

/*doo rat ha wa rid* /

/ *Šad da* /

/ *kul liʗ na wa rid* /

/ *Šad da* /

Appendix 3

The Deviated Lines in the Third Nursery Rhyme

1. / *hee laa yaa rum maa na* /

/ hee laa yum ma /

3. / *min hiy yal zaɛ laa na /*

/ hee laa yum ma /

5./ *zan nuu bal zaɛ laa na* /

/ hee laa yum ma /

7. */min hul li raa ẓii ha/*

/ hee laa yum ma /

9. / *ʾa buu hay raa ẓii ha /*

/ *hee laa yum ma* /

11. / *ṣaa yiǧ ta raa Čii ha /*

/ *hee laa yum ma* /

13. / *m iɾ ba su ǧir daa la* /

/ *hee laa yum ma* /

Appendix 4

The Deviated Lines in the Fourth Nursery Rhyme

1./*yaa ṭeer ġan ni ġan ni*/

2./*ɛa laj naa ʗak ṭay yir ni*/

3./*wad dii ni lil ba saa tiin*/

/*ʔaŠ rab ṃaay ʔaa kul tiin* /

/*ʔaŠ rab ṃaay ʔaa kul tiin* /

6./*far riʗ ni farʗatil ɛiid* /

/*lab bis ni θoo bil ja diid* /

/ *kul may riid baa bay riid* /

/ *kul may riid baa bay riid* /

Appendix 5

The Deviated Lines in the Fifth Nursery Rhyme

1./*ɛaṣ ʃuu ri min ʾii di ṭaar/*

/ɛaṣ ʃuuri ʃoogil ʾaš jaar/

/ʾin zil ʾin zil yaa ɛaṣ ʃuur/

4./*ʾik lil ʓabib lay yak šuur/*

5./*ɛaṣ ʃuu ri čaa niz ġay yir/*

6./*rab bee ta ɛa la ʾii di/*

/lam man ku bar wit ray yaš/

/*gaa mi nag gir bix duu di/*

Appendix 6

The Deviated Lines in the Sixth Nursery Rhyme

1. / *ɠa zaa la ɠaz zi loo ki /*

2. */bil ɱaay daɛ bi look i /*

3. */ɠaaɛ da ɛ a laŠ Šaṭ/*

/ɠaaɛ dat ti ma Šaṭ/

5. / *ʔi jaa ha nuu mi /*

/ ɠal lil ha ɠuu m i /

7. */ ɠal lat la maa ɠuum /*

/ haa ð ɕi ṣaa n i/

/ʔa Šid da war kab /

/ɛa lil si kar kab /

11. */si kar ka bil bar riiy ya /*

12. */ laa tib Čiin ɛ a lay ya /*

13. */ʔib Či ɛa laɕ juu liČ /*

14. */ɕ juu liČ bar baɛ miiy ya/*

Appendix 7

The Deviated Lines in the Seventh Nursery Rhyme

/ʔa maan ya ʗi n na ʔa maan /

/ʗin na til baṣ ra ʔa maan /

/ʢa lee na ʗas ra ʔa maan/

/wil yoom ʢii di/

/la la la/

6. */ʃus taan ja dii di/*

/la la la/

8. */ʃus taa ni kaŠ kaŠ/*

/la la la /

/bil war dim laṭ ṭaŠ/

/la la la/

12. */ʃus taa nim Šaq qaq/*

المستخلص

تحاول هذه الدراسة تحليل التركيب المتري لأناشيد الاطفال باللهجة العربية العراقية. تتعامل هذه الدراسة على وجه التحديد مع تعيين انماط نبر الكلمة حسب نظرية هيز المترية (1995). الافتراض الاساسي لهذه النظرية هو ان '' النبر هو بناء هرمي للأنماط الإيقاعية التي يكون فيها احد المقاطع بارز نسبيا عن ما سبقه وتبعه من المقاطع''. و بما ان الوزن الشعري و الايقاع من المميزات الاساسية لأناشيد الاطفال, فان التركيب الايقاعي لكلمات الاناشيد يتم بحثه بواسطة تطبيق النظرية المترية لهيز (1995) و انموذج الشبكة ذات القوسين.

في ضوء قواعد اروين (2004) لوضع النبر على الكلمات باللهجة العربية العراقية, يتم وضع النبر على الكلمات لثمان اناشيد باللهجة العربية العراقية, ثم تبنى التفعيلات المترية لكل كلمة وفقا الى المعايير و القوانين الخاصة باللهجة العربية العراقية. هيز (1995) اكد على ان بناء التركيب المتري للكلمات يختلف باختلاف اللغة. بمعنى اخر, يتم نبر و بناء التفعيلات المترية بعد تحديد المعايير والقوانين للغة معينه. من ناحية أخرى, تم تسمية الانماط الشعرية (التفعيلات الوزنية) لكل سطر شعري اسماء لاتينة اعتمادا على تصنيف ونرايت (2004) للانماط الايقاعية.

تنقسم الدراسة الحالية الى ستة فصول. يعرض الفصل الاول المشكلة و الاهداف و الفرضيات والحدود و خطوات العمل و كذلك اهمية الدراسة. يعرض الفصل الثاني بصورة عامه خلفية نظرية حول النظرية المترية, ثم يقدم شرحا لنظرية هيز المترية (1995). يتعلق الفصل الثالث بعرض خلفية نظرية عن النبر باللغة العربية بصورة عامه, ثم النبر باللهجة العربية العراقية بصورة خاصة, كما يتناول هذا الفصل بشكل تفصيلي مناقشة حول اناشيد الاطفال.

الفصل الرابع هو الفصل التحليلي, تم فيه تحديد التركيب المتري لكل كلمه وعدد المقاطع التي تم نبرها و كذلك الانماط الايقاعية لكل سطر في ثمانية اناشيد للأطفال باللهجة العربية العراقية. يتضمن الفصل الخامس توضيحا للنتائج. يتناول الفصل السادس عرض الاستنتاجات و اعطاء التوصيات و المقترحات للدراسات المستقبلية.

جمهورية العراق

وزارة التعليم العالي والبحث العلمي

جامعة ميسان

كلية التربية

قسم اللغة الانجليزية

دراسة صوتية للتركيب المتري لبعض اناشيد الاطفال باللهجة العربية العراقية

رسالة مقدمة الى مجلس كلية التربية- جامعة ميسان

وهي جزء من متطلبات نيل شهادة الماجستير آداب في اللغة الانجليزية و علم اللغة

تقدمت بها الطالبة

مريم نعيم حسن

بإشراف

أ. د بلقيس عيسى كاطع الراشد

2020 A.D. **1441 A.H.**