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Phonological Explanation of Epenthetic [-n] in Qur'anic Arabic



Farzaneh Tajabadi *✉ 0000-0002-1394-6140

Interdisciplinary Qur'anic Studies Research Institute, Shahid Beheshti University, Tehran, Iran.
 Email: f_tajabadi@sbu.ac.ir



Aliyeh Kord Zafaranlu Kambuziya** 0000-0003-0528-739x

Department of Linguistics, Humanities Faculty, Tarbiat Modares University, Tehran, Iran.
 Email: akord@modares.ac.ir

ABSTRACT

Epenthetic [-n] is one of the four types of singular nūn in Qur'anic Arabic. The present study aims to provide a phonological explanation based on Markedness Theory for the motivation of insertion, the reason of choosing as well as the role that this consonant plays in the existing structures. For this purpose, all the cases in which epenthetic [-n] is used were extracted computationally. Next, the lexical and syntactic categories of linguistic elements and the phonological context in which epenthesis occurs were determined. Then, an explanation for this process was presented based on various concepts such as sonority, syllable structure, perceptual clues etc. The findings show epenthesis has been primarily motivated by the desire to eliminate onsetless syllables and to resolve vowel hiatus. Due to this insertion the phenomenon of opacity occurs which prevents the vowel from undergoing vowel harmony. Furthermore, understanding the nasals' exact place of articulation is difficult. By inserting this consonant, due to the auditory salience and acoustic clues, the perceived clarity of the place of articulation increases. Moreover, because there is an inverse relationship between the degree of nasal consonant salience and the degree of perception of the vowel nasality; the amount of prominence of the vowel that follows the nasal consonant is reduced. As a result, a less marked structure is created. Therefore, the insertion of this consonant is done with the aim of reducing markedness and is in line with the universal tendency of languages in relation to using less marked structures.

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* She is a linguist and more specifically a phonologist. Her research has focused on the following topics: Persian phonology, the phonological system of Iranian languages, loan phonology, morpho-phonology, etc.

** She is a linguist. Her specialty is phonology, and her interest particularly lies in phonological processes in different Iranian linguistic varieties.

Introduction

One of the topics discussed in the science of Tajwīd (the correct way of reciting the Qur'an) is the issue of epenthetic[-n] which is one of the four types of singular nūn (nūn mufradah) in Qur'anic Arabic. The singular nūn can take four forms: energetic (لِيَذْهَبَنَّ), nunation (غَطَاءٌ), nūn of femininity (يَذْهَبَنَّ), and epenthetic (حَفْظًا). In Qur'anic Arabic the letter (consonant) before the attached first singular person pronoun /ī/ takes a kasra (a diagonal stroke written below the consonant which precedes it in pronunciation. It represents a short vowel /i/) for harmony with the pronoun. However, there are words that do not take a kasrah at their final position, such as verbs, or their final vowel does not change, such as mabnīyāt¹. In these cases, to prevent the changing of the final vowel of the word, a letter "nūn" is inserted before the pronoun /ī/, which is called epenthetic[-n]. Epenthetic [-n] is sometimes also used to avoid the sequence of two consonants and in some cases to prevent the semantic interference of morphemes and to maintain their formal boundaries in words. In short, epenthetic[-n] is a nūn that is placed before the attached first singular person pronoun [ī] and by creating a distance between the pronoun and the base word, prevents the changing of the final vowel of the word, semantic interference, or the sequence of two consonants. Epenthetic[-n] does not have a specific grammatical status. Therefore, paying attention to the grammatical status of

related words can help to better understand it (Safai, 2008: vol. 3: 327). If we approach the issue from a phonological perspective, we are faced with the process of consonant epenthesis. Consonant epenthesis is a phonological strategy for overcoming universal restrictions on languages' phonotactics. In this type of epenthesis, based on structural considerations, a linguistic unit of the type of consonant appears in the output that has no counterpart in the input. The epenthetic unit may be a vowel, a consonant or even a sound that does not exist in that language, depending on the type of language in which this process occurs (Prince and Smolensky, 2004; Morley, 2018). The important point here is that although the output and phonetic representation of the data which undergo this process may be the same, the nature and motivation of insertion in them may differ. It should be noted that consonant epenthesis is not a common phenomenon in languages, unlike vowel epenthesis (Oyebade, 2004, 73; Ibikunle et al., 2020). Therefore, linguists should pay special attention to languages in which such insertion occurs and carefully examine all possible phonetic, morphological, and syntactic roles of the epenthetic consonant.

Based on what has been mentioned, in this study, we aim to find answers to the following questions: 1) In what context does the insertion of [-n] occur in the Qur'anic Arabic language? 2) What phonetic and phonological analysis can be presented in the

demonstrative nouns (except for dual forms), interrogative nouns, conditional nouns, compound numbers between 11 and 19, and some adverbs.

¹ . If the ending vowel of words does not change regardless of the different roles they play in a sentence, they are called mabnī words. These include common and proper relative pronoun (except for dual forms),

framework of markedness theory to explain the motivation for the selection of the inserted consonant and the role it plays in the existing structure? To find answers to these questions, after reviewing the research background and presenting the research methodology and theoretical framework, the available data will be examined and ultimately, a general conclusion will be presented.

Literature Review

Studies have been conducted by researchers of Semitic languages and Arabists regarding the infix [-n] observed in West Semitic languages such as Arabic. A review of previous research shows that despite the importance of the topic, researchers have not approached this issue with a phonological perspective, and in all available works, efforts have been made to reconstruct the main form of this affix historically and to provide an explanation for its occurrence in different linguistic varieties. Among these studies, mention can be made of the works of [Hetzron \(1969\)](#), [Barth \(1972\)](#), [Retsö \(1988\)](#), [Testen \(1993\)](#), [Hasselbach \(2006\)](#), [Owens \(2013\)](#), and [Holes \(2018\)](#). Since the historical reconstruction of this affix is not within the scope of the present research, this section does not delve into these works in detail, but the overall summary of the opinions expressed in these works suggests that some consider it to be a verbal affix related to the proto-Semitic languages, while others consider it to be a grammaticalized form of an independent linguistic element [demonstrative + object pronoun].

Regarding the topic of consonant epenthesis, studies have been conducted within the framework of the theory of markedness, which relevant cases to the present research include:

[Kong \(2000\)](#) studied the markedness and unmarkedness of coronal consonants from the perspective of phonetics and phonology. In this study, he examined the specific restrictions on the place of articulation of oral and non-oral (nasal) stops, with a focus on the different behaviors of coronal and non-coronal stops. He concluded that two opposing outputs exist with respect to the restriction on the place of articulation: one indicating markedness of coronals, and the other indicating unmarkedness of coronals. He explained that the unmarkedness of coronals is the default pattern of the restriction on the place of articulation, which is not restricted to specific contexts or languages with specific phonemic entries. This is consistent with the hierarchy of markedness of the place of articulation, which is presented independent of the context (context free). On the other hand, the markedness of coronals is observed only in specific positions (positions other than the prevocalic position) and only in languages where there is no contrast between the place of articulation of coronals. In these cases, another hierarchy of markedness which is based on the perceptibility scale of place features is introduced, which is entirely context dependent.

[Lombardi \(2002\)](#) has addressed the topic of inserting coronal consonants based on the markedness of place of articulation. His research findings indicate that, based on

the available cross-linguistical evidence, whenever the insertion of glottal consonant as the least marked linguistic unit in terms of place of articulation is not possible, coronals are the best option as they are considered the second least marked linguistic unit after the glottal consonants. Additionally, the insertion of coronal consonants is always accompanied by specific limitations. In the syllable's coda, this insertion is mainly carried out for phonological purposes, while in the onset, morphological objectives are also considered.

[De Lacy \(2006\)](#) has discussed the topic of markedness in phonology in detail, within the framework of Optimality Theory. In a section of his book, he has raised the issue of the markedness of consonant insertion. By providing a typological list of default consonants for the insertion process in different languages, he expresses that this set is very limited, and if among two consonants, a and b, from this set, consonant a is selected for insertion, it means that consonant b is more marked than a in the hierarchy of markedness. He also states that in the context of consonant insertion, the only effective and determining force is the force that reduces markedness. He believes that in the analysis of the consonant insertion process, various hierarchies of markedness such as the hierarchy of place of articulation markedness and the hierarchy of sonority scale markedness should be considered. Finally, he concludes that due to the existence of different hierarchies of markedness, it cannot be definitively determined which consonant is always the least marked by default.

[Uffmann \(2007\)](#) has attempted to present a model for consonant insertion based on the position of insertion. He states that the selection of consonants in the insertion process depends on the prosodic position and the degree of contrast they create. Thus, various strategies are used to select the optimal consonant based on the optimal contrast. In fact, the selection of the inserted consonant is determined by the environment in which the insertion occurs, as well as the optimal or minimal contrast that it creates in that environment. Accordingly, more prominent elements are placed in the nucleus of the syllable, while less prominent elements are placed in the margins. He then presents the following ranking based on the concept of markedness for selecting consonants in different positions, including margin of the syllable, the nucleus of the syllable, and the intervocalic space:

Margin/V > Margin/r > Margin/l >
 Margin/nas > Margin/obs > Margin/lar
 Peak/lar > Peak/obs > Peak/nasal > Peak/l >
 Peak/r > Peak/V
 V_V/lar > V_V/obs > V_V/nas > V_V/l >
 V_V/r > V_V/V

[Blevins \(2008\)](#) believes that in the discussion of consonant insertion, only issues related to syllable structure markedness and consonant quality, or in other words, distributive issues, and phonetic properties, should not be considered; rather, attention should also be paid to the natural and non-natural history of these coarticulations, which accurately reflects the characteristics of consonant insertion without considering these two concepts. He states that since all sound changes initially occur with a phonetic

motivation, by identifying the most common natural histories for inserted consonants in the vicinity of vowels, it is possible to predict that the phonetic characteristics of inserted consonant which directly or indirectly reflecting these processes are much more common than other cases that do not reflect them. He considers a non-natural history for the insertion of [n] and believes that its insertion cannot be explained solely by phonological reasons.

In summary, the above research results indicate that it is possible to provide an explanation for the insertion of consonants in different positions based on various hierarchical levels of markedness, including the hierarchy of place of articulation, scale of sonority, scale of prominence, and by considering the markedness of syllable structure, quality of consonants, and other related factors. Now, based on these findings, an attempt will be made to provide an explanation for the insertion of the nasal consonant in the Qur'anic Arabic language.

Research methodology

This study aims to investigate the phenomenon of epenthetic [-n] in Qur'anic Arabic language using a phonological approach and a descriptive-analytical method. To this end, the research data (a total of 286 cases) were extracted from the entire Qur'an text by applying a computerized method and creating a subset of patterns in which epenthetic [-n] occurs. In the next step, the lexical and grammatical categories of the participating elements in this process were determined based on the information available in the Arabic Corpus of the Qur'an website, and the phonetic context of the

occurrence of each of them was identified. Then, in parallel with the typological explanation of the topic, a phonological explanation for this phenomenon was provided based on various concepts such as principles of syllable structure, sonority principle, perceptual and auditory cues, and other related factors, within the framework of the markedness theory.

Markedness is considered one of the central concepts in phonological studies, which has opened a new window to studying linguistic structures and made understanding some linguistic processes easier and simpler. The history of this theory dates back to 1931 and the theory proposed by Trubetzkoy in the Prague School. The markedness theory states that in all languages of the world, there are special linguistic elements and structures that are more basic, natural, and frequent compared to other cases, which are referred to as unmarked linguistic elements and structures. These elements have a wider range of use compared to marked cases ([Yangu & Feng-juan, 2015](#)).

The markedness theory proposed by Trubetzkoy is a qualitative theory about the absolute binary opposition relationships based on the presence or absence of a feature in the fields of phonetics and phonology. For example, in the contrast between voiced and voiceless sounds, the first member is marked, and the second member is unmarked. However, currently, this theory has been expanded to other fields such as semantics, morphology, syntax, pragmatics, and psycholinguistics, and the concepts presented in it have acquired much newer and different meanings than their original form.

Furthermore, linguists nowadays do not consider markedness as a binary opposition and define it as a gradual or scalar phenomenon, meaning that some elements and structures are more marked than others. Therefore, they represent the markedness relationships hierarchically. To display the hierarchy of markedness, the symbol || is used

to indicate the two ends of the domain and the symbol > is used to indicate "more marked than". The contrast between marked and unmarked forms can generally be divided into two categories based on non-phonological and phonological criteria ([Table 1](#)):

Table 1: Differences between marked and unmarked forms (Rice, 2007, p.80)

	Marked	Unmarked
A	Less natural, more complex, more specific, less common, unexpected, not basic, less stable, appear in few grammars, later in acquisition, early loss in language deficit, implies unmarked feature, harder to articulate, perceptually more salient, smaller phonetic space	More natural, simpler, more general, more common, expected, basic, stable, appear in more grammars, earlier in acquisition, late lose in in language deficit, implied by marked feature, easier to articulate, perceptually less salient, larger phonetic space
B	Subject to neutralization, unlikely to be epenthetic, trigger of assimilation, remains in coalescence, retained in deletion	Result of neutralization, likely to be epenthetic, target of assimilation, lost in coalescence, lost in deletion

Group A is known as natural or frequency markedness, and group B is known as phonological or structural markedness. According to this classification, the difference between marked and unmarked forms in any process is determined based on the outcome, motivating factors, triggers,

as well as factors that are affected by a process. Therefore, it is expected that only unmarked forms can participate in a process and only they can be the outcome of a process. Also, unmarked elements cannot be a trigger agent or cause of any alternation. In contrast, marked forms are rarely observed in the outcome, often only serving as trigger in a process and in most cases not entering a process ([De Lacy, 2006: 4](#)). The markedness of a structure can be described based on

acoustic, perceptual, or some abstract parameters. The four main characteristics considered for markedness of a linguistic structure are complexity, difficulty, abnormality, and its multidimensional operation ([Haspelmath, 2006](#)). The important point to note is that the generalizations mentioned are often related to performance markedness/ P-markedness rather than competence markedness/ C-markedness. In other words, when we talk for example about the frequency of a structure or linguistic element as a criterion for determining markedness (whether it be in terms of typological frequency or text frequency/ occurrence frequency) or in discussions related to historical changes, the order of learning linguistic structures, loanword

adaptation, phonological disorders, and the like, the real usage of that structure in the language is what matters, not the speaker's internal linguistic knowledge or i-language. Additionally, in analyzing processes based on this theory, attention should be paid to the two concepts of markedness reduction and preservation of markedness, which play an important role in this theory. Markedness reduction refers to the pressure and limitation imposed on languages so that their output includes unmarked cases, while the preservation of markedness is the force that tries to keep the markedness form of input intact (De Lacy, 2006, 23).

Discussion and Research Findings

In this section, we focus on presenting and analyzing the data extracted from the Qur'an where epenthetic [-n] has been used (Table 2). In approximately 300 instances,

epenthetic [-n] has been used in 52 out of 114 surahs of the Qur'an (repeated data is not presented in the table). These surahs include Al-Baqarah, āl 'im'rān, al-nisāa, al-māidah, al-an'ām, al-a'rāf, al-tawbah, Yūnus, Hūd, Yūsuf, Ib'rāhīm, hij'r, al-naḥl, al-isrā, al-kahf, Maryam, ṭā hā, al-anbiyāa, al-mu'minūn, al-nūr, al-fur'qān, al-shu'arā, al-naml, al-qaṣaṣ, al-'ankabūt, Luq'mān, al-sajdah, Saba, fāṭir, yā sīn, al-ṣāfāt, ṣād, al-zumar, ghāfir, fuṣṣilat, al-zukh'ruf, al-dukhān, al-aḥqāf, al-dhāriyāt, al-ṣaf, al-munāfiqūn, al-taḥrīm, al-mulk, al-qalam, al-hāqah, Nūḥ, al-jin, al-muzamil, al-mudathir, al-naba, al-fajr and al-mur'salāt. The symbols N, V, and PRON in Table 2 are used respectively to indicate nouns, verbs, and pronouns, and the words are transcribed based on the International Phonetic Alphabet (IPA).

Table 2: Part of speech and syntactic structures of phrases containing epenthetic [-n] in the Qur'an

Part of speech and syntactic structures	IPA Transcription	Qur'anic phrase
N – genitive noun PRON – 1st person singular possessive	<u>لَدُنِّي</u>	لَدُنِّي
P – preposition PRON – 1st person singular object	<u>عِنِّي</u>	عِنِّي، عِنِّي
[CONJ – prefixed conjunction wa)]/ [VOC – prefixed vocative particle ya] ACC – accusative particle PRON – 1st person singular object	<u>وَإِنِّي، إِنِّي، يَايُنِّي</u>	وَإِنِّي، إِنِّي، يَايُنِّي
V – 1st person singular imperfect, subjunctive mood PRON – 1st person singular object	<u>أَرَانِي</u>	أَرَانِي
[CONJ – prefixed conjunction wa]/ [REM – prefixed resumption particle] V – 2nd person masculine singular imperative PRON – 1st person singular object	<u>أَرَانِي، أَنْظِرْنِي، اخْلُفْنِي، اذْكُرْنِي، وَأَلْحِثْنِي، وَأَجْنِبْنِي، فَأَنْظِرْنِي، أَدْخِلْنِي، وَأَخْرِجْنِي، فَاتَّبِعْنِي، وَأَهْجُرْنِي، فَاعْتَبِدْنِي، زِدْنِي، أَنْزِلْنِي</u>	أَرَانِي، أَنْظِرْنِي، اخْلُفْنِي، اذْكُرْنِي، وَأَلْحِثْنِي، وَأَجْنِبْنِي، فَأَنْظِرْنِي، أَدْخِلْنِي، وَأَخْرِجْنِي، فَاتَّبِعْنِي، وَأَهْجُرْنِي، فَاعْتَبِدْنِي، زِدْنِي، أَنْزِلْنِي

		أَنْصُرُنِي، اجْعَلْنِي، واجْعَلْنِي، وَنَجِّنِي، أَوْزِعْنِي، وَأَدْخِلْنِي، أَكْفِلْنِيهَا، ذَرْنِي
[CONJ – prefixed conjunction wa] V – 2nd person masculine singular perfect PRON – subject pronoun PRON – 1st person singular object	<u>wa-ḥayyanī wa-ḥayyanī ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>ḥayyanī wa-ḥayyanī ḥayyanī wa-ḥayyanī</u>	خَلَقْتَنِي، أَعُوذْتَنِي، أَمْرَتَنِي، تَوَقَّيْتَنِي، أَتَيْتَنِي، وَعَلَّمْتَنِي، أَخَّرْتَنِي، أَتَّبَعْتَنِي، خَشَرْتَنِي، أَخَّرْتَنِي
[FUT – prefixed future particle sa] V – 2nd person masculine singular imperfect PRON – 1st person singular object	<u>sa-āli wa-ḥayyanī wa-ḥayyanī</u>	تَرَانِي، سَتَجِدُنِي، تُرِينِي
[PRP – prefixed particle of purpose lām], [CONJ – prefixed conjunction wa] V – 2nd person masculine singular imperfect, jussive mood PRON – 1st person singular object	<u>la-āli wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī</u>	فَلَا تَجْعَلْنِي، تُنظِرُونِ، وَتَرَحَّمْنِي، تَوَقَّيْنِي، تَرَنْ، تَسْأَلْنِي، تُؤَاخِذْنِي، تُرْهِقْنِي، تُصَاحِبْنِي
[PRP – prefixed particle of purpose lām] V – 2nd person masculine singular imperfect, subjunctive mood PRON – 1st person singular object	<u>la-āli wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u>	لَتَقْتُلْنِي، تَرَانِي، تُعَلِّمَنْ، تَتَّبِعَنْ، تَأْجُرْنِي
V – 2nd person masculine dual imperative PRON – subject pronoun PRON – 1st person singular object	<u>wa-ḥayyanī wa-ḥayyanī</u>	دَعَانِ
[REM – prefixed resumption particle]/ [RSLT – prefixed result particle]/ [CONJ – prefixed conjunction wa/fa] V – 2nd person masculine plural imperative PRON – subject pronoun PRON – 1st person singular object	<u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u>	أَتَّبِعُونِي، أَتَّخِذُونِي، بَنُّوْنِي، كِيدُونِ، فَكِيدُونِ، فَادْكُرُونِي، وَأَتَّبِعُونِ، فَأَتَّبِعُونِي، أَفْتُونِي، فَارْسُلُونِ، أَتُّونِي، فَاعْبُدُونِ، ارْجِعُونِ، وَأَطِيعُونِ، وَخَافُونِ، وَاحْشِسُونِ، وَاحْشِسُونِي، وَأَتَّقُونِ، فَاتَّقُونِ، فَارْهَبُونِ، وَأَتُّونِي، فَأَعِينُونِي، أَتُونِي، أُرُونِي، فَاسْمَعُونِ، اعْبُدُونِي، ذَرُونِي، أَتَّبِعُونِ، ادْعُونِي، فَاعْتَزِلُونِ
[CONJ – prefixed conjunction wa] [REM – prefixed resumption particle] [PRO – prohibition particle] V – 2nd person masculine plural imperfect, jussive mood PRON – subject pronoun PRON – 1st person singular object	<u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u> <u>wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī wa-ḥayyanī</u>	وَلَا تَنْظِرُونِ، وَلَا تَكْفُرُونِ، وَلَا تُخْرُجُونِ، تَأْتُونِي، تَلُومُونِي، فَلَا تَفْضَحُونِ، تَسْتَعْجِلُونِ، وَلَا تَكَلِّمُونِ

<p>V – 2nd person masculine plural imperfect, subjunctive mood PRON – subject pronoun PRON – 1st person singular object</p>	<p><u>تَوَدُّونَ، تَتَّقُونَ، تَتَّبِعُونَ، تَتَّعِبُونَ</u></p>	<p>تُوَدُّونَ، تُتَّقُونَ، تُتَّبِعُونَ، تُتَّعِبُونَ، تُرْجِمُونَ</p>
<p>[INTG – prefixed interrogative alif] V – 2nd person masculine plural perfect PRON – subject pronoun PRON – 1st person singular object</p>	<p><u>عَلِمْتُمْ، عَلِمْتُمْ، عَلِمْتُمْ، عَلِمْتُمْ</u></p>	<p>خَلَقْتُمُونِي، أَسْرَكْتُمُونِي، أَبْشَرْتُمُونِي</p>
<p>[INTG – prefixed interrogative alif]/ [EMPH – emphatic prefix lām]/ [CIRC – prefixed circumstantial particle] V – 2nd person masculine plural imperfect PRON – subject pronoun PRON – 1st person singular object</p>	<p><u>لَا تَعْلَمُونَ، لَا تَعْلَمُونَ، لَا تَعْلَمُونَ، لَا تَعْلَمُونَ</u> <u>لَا تَعْلَمُونَ، لَا تَعْلَمُونَ</u></p>	<p>أَتَجَادِلُونِي، لَتَأْتِيَنِي، أَتَمِدُّونِي، تَأْمُرُونِي، تَدْعُونِي، تُؤَدُّونِي، تَزِيدُونِي</p>
<p>INTG – prefixed interrogative alif V – 2nd person masculine plural passive imperfect PRON – subject pronoun PRON – 1st person singular object</p>	<p><u>لَا تَعْلَمُونَ</u></p>	<p>أُتَحَاجُّونِي</p>
<p>[CIRC – prefixed circumstantial particle]/ [CONJ – prefixed conjunction wa] V – 3rd person masculine singular perfect PRON – 1st person singular object</p>	<p><u>لَمَّا جَاءَ، لَمَّا جَاءَ، لَمَّا جَاءَ، لَمَّا جَاءَ</u> <u>وَأَتَانِي، وَأَتَانِي، وَأَتَانِي، وَأَتَانِي</u> <u>جَاءَ، جَاءَ، جَاءَ، جَاءَ</u></p>	<p>هَدَيْتَنِي، هَدَيْتَنِي، بَلَّغْتَنِي، مَسَّبَيْتَنِي، وَأَتَانِي، فَطَرْتَنِي، وَرَزَقْتَنِي، عَلَّمْتَنِي، أَخْرَجْتَنِي، أَتَّبَعْتَنِي، تَبِعْتَنِي، عَصَانِي، مَكَّنْتَنِي، أَتَانِي، وَجَعَلْتَنِي، وَأَوْصَانِي، جَاءْتَنِي، أَضَلَّتَنِي، جَاءْتَنِي، خَلَقْتَنِي، أَتَانِي، أَرَادْتَنِي، نَبَّأْتَنِي، أَهْلَكْتَنِي، أَكْرَمْتَنِي، أَهَانْتَنِي، أَنْسَانِيَه</p>
<p>[EMPH – emphatic prefix lām]/ [FUT – prefixed future particle sa]/ [CONJ – prefixed conjunction wa] V – 3rd person masculine singular imperfect PRON – 1st person singular object</p>	<p><u>سَأَنْبُرْتُكَ، سَأَنْبُرْتُكَ، سَأَنْبُرْتُكَ، سَأَنْبُرْتُكَ</u> <u>سَأَنْبُرْتُكَ، سَأَنْبُرْتُكَ، سَأَنْبُرْتُكَ، سَأَنْبُرْتُكَ</u></p>	<p>يُنْصِرْتَنِي، يَعْصِمْتَنِي، لِيُخْرِجْتَنِي، يَرْتِيَنِي، سَيَهْدِينِي، يَهْدِينِي، يُطْعِمْتَنِي، يَشْفِينِي، وَيَسْقِينِي، يُؤْمِنْتَنِي، يُخَيِّبْنِي، يَأْتِينِي، يُصَادِّقْتَنِي</p>
<p>V – 3rd person masculine singular imperfect, jussive mood PRON – 1st person singular object</p>	<p><u>يَهْدِيَنَّ، يَهْدِيَنَّ، يَهْدِيَنَّ، يَهْدِيَنَّ</u></p>	<p>يَهْدِينِي، يَمْسَسْتَنِي، يَجْعَلْنِي، يَرِدْنِي</p>
<p>[PRP – prefixed particle of purpose lām] V – 3rd person masculine singular imperfect, subjunctive mood</p>	<p><u>لِيَهْدِيَنَّ، لِيَهْدِيَنَّ، لِيَهْدِيَنَّ، لِيَهْدِيَنَّ</u></p>	<p>يَأْتِينِي، يَهْدِينِي، يُؤْتِينِي، لِيَبْلُغْنِي، يَهْدِينِي، يُجِيرْنِي</p>

PRON – 1st person singular object		
V – 3rd person masculine plural imperfect PRON – subject pronoun PRON – 1st person singular object	<u>يَقْتُلُونِي يَا دُعُونِي يَا عِبْدُونِي</u>	يَقْتُلُونِي، يَدْعُونِي، يَعْْبُدُونِي
[PRP – prefixed particle of purpose lām] V – 3rd person masculine plural imperfect, subjunctive mood PRON – subject pronoun PRON – 1st person singular object	<u>لِيَقْتُلُونِي يَا دُعُونِي يَا عِبْدُونِي</u>	يَخْضَرُونَ، يَكْدَبُونَ، يَأْتُونَ، يَقْتُلُونَ، لِيَعْبُدُونَ، لِيَطْعَمُونَ
[CONJ – prefixed conjunction wa], [NEG – negative particle] V – 3rd person masculine plural imperfect, jussive mood PRON – subject pronoun PRON – 1st person singular object	<u>وَلَا يَنْقُذُونَ، لَا يَسْتَعِجِلُونَ</u>	وَلَا يُنْقِذُونَ، يَسْتَعْجِلُونَ
V – 3rd person masculine plural perfect PRON – subject pronoun PRON – 1st person singular object	<u>اسْتَضَعُونِي، كَذَبُون، عَصَوْنِي</u>	اسْتَضَعُونِي، كَذَبُون، عَصَوْنِي
REM – prefixed resumption particle V – 3rd person masculine plural passive perfect PRON – subject pronoun PRON – 1st person singular object	<u>فَكَيْدُونِي</u>	فَكَيْدُونِي
V – 3rd person masculine dual (form II) perfect verb PRON – subject pronoun PRON – 1st person singular object	<u>رَبَّيَانِي</u>	رَبَّيَانِي
V – 2nd person feminine plural perfect verb PRON – subject pronoun PRON – 1st person singular object	<u>لَمُنَّيْنِي</u>	لَمُنَّيْنِي
[CONJ – prefixed conjunction wa/ fa]/ [NEG – negative particle] V – 3rd person feminine singular imperfect, jussive mood PRON – 1st person singular object	<u>تَقْنِي، فَلَا تَسْأَلْنِي، تَذْنِي، وَلَا تُحَاطِبْنِي، وَلَا تُخَيِّرْنِي</u>	تَقْنِي، فَلَا تَسْأَلْنِي، تَذْنِي، وَلَا تُحَاطِبْنِي، وَلَا تُخَيِّرْنِي
V – 3rd person feminine singular imperfect, subjunctive mood	<u>تَقْنِي</u>	تَقْنِي

PRON – 1st person singular object		
V – 3rd person feminine singular perfect PRON – 1st person singular object	<u>رَأَيْتِي</u>	رَأَيْتِي
[EMPH – emphatic prefix lām] V – 3rd person feminine singular imperfect PRON – 1st person singular object	<u>لَأَرِي</u>	لَأَرِي
[INTG – prefixed interrogative alif] V – 3rd person feminine dual imperfect verb PRON – subject pronoun PRON – 1st person singular object	<u>أَلَيْسَ</u>	أَلَيْسَ

Explanation of epenthetic [-n] from the syllable structure perspective

The linguistic value of syllable as a linguistic concept lies in the fact that all the phonological patterns of a language, such as phonotactics restrictions, phonological processes, and the like, can be explained based on it. Syllable structure is, in fact, a type of well-formedness condition that defines the possible orders and sequences of phonemes and prosodic structures within syllables of a language (Itô, 1989). Almost all different varieties of Arabic share two common features in terms of syllable structure: having syllables with simple codas and having onsets. Thus, syllables with CV and CVC structures can be found in all different varieties of this language, while syllables with V and VC structures are not observed in any of them (Broselow, 2018). The absence of these structures in these language varieties is due to a universal tendency and structural limitation, meaning that all syllables must have an onset, and a syllable without an onset is considered a marked structure (Kager, 1999, p.93). This has been well established based on

typological frequency and related topics in language acquisition. Additionally, there is ample phonological evidence that can prove that syllables with onsets are less marked than those without onsets, including phenomena such as allophony, allomorphy, reduplication, deletion, and epenthesis.

There is much evidence that proves in Arabic, the onset cannot be empty. For example, in Arabic the loanwords that start with a vowel are pronounced with the addition of a glottal stop (hamza) at their beginnings or a glottal stop is added at the onset of a vowel-initial word to fill the empty position. The difference between the Arabic linguistic varieties lies only in the type of consonant that fills this position. Therefore, possible syllabic structures for different varieties of Arabic can be considered as $C_nV_xC_m$, where n and x have a value of one, and $0 \leq m \leq 2$. In the Qur'anic Arabic, there are five types of syllabic structures: CV, CV:, CVC, CV:C, and CVCC. In this language variety, short vowels are monomoraic and long vowels are bimoraic. Thus, the CV syllable is light, and the other cases are considered heavy syllables.

Now, if we look at the data from a syllabic structure perspective, we will realize that the reason for the presence of epenthetic [-n] is the addition of the morpheme [ī] to different bases. This morpheme has an object role. After adding this morpheme, which has the V: syllabic structure, to different bases (whether they end in a consonant or a vowel), illicit syllabic structures such as *V(:)C.V: or *CV(:).V: may arise. For example:

Base ends in vowel

<u>بِئْسَ مَا يَكْتُمُونَ</u>	...CV:.V:
<u>بِئْسَ مَا يَكْتُمُونَ</u>	...CV.V:
<u>بِئْسَ مَا</u>	...CV:.V:
<u>بِئْسَ مَا</u>	...CV.V:
<u>بِئْسَ مَا</u>	...CV:.V:
<u>بِئْسَ مَا</u>	...CV.V:

Base ends in consonant

<u>بِئْسَ مَا يَكْتُمُونَ</u>	...VC.V:
<u>بِئْسَ مَا يَكْتُمُونَ</u>	...VC.V:
<u>بِئْسَ مَا يَكْتُمُونَ</u>	...VC.V:
<u>بِئْسَ مَا يَكْتُمُونَ</u>	...VC.V:
<u>بِئْسَ مَا يَكْتُمُونَ</u>	...VC.V:
<u>بِئْسَ مَا يَكْتُمُونَ</u>	...VC.V:

Thus, it can be said that onsetless syllable is the main reason for the non-well-formedness of these examples. So, the insertion of a nasal consonant in these structures at the boundary between two syllables, first occurs with the motive of repairing onsetless syllable. For example:

<u>بِئْسَ مَا يَكْتُمُونَ</u>	CV:.V:→CV:.CV:
<u>بِئْسَ مَا يَكْتُمُونَ</u>	VC.CV:→VC.V:

With the insertion of a consonant at the onset position of these syllables and the creation of a simple CV: syllable (Clements,

1990, 303), the reduction of markedness occurs. In these cases, the inserted consonant cannot be influenced by the force of preserving markedness force because it does not exist in the underlying (input) form. Therefore, the only possible and effective force is the force of markedness reduction, which causes the presence of marked structures and features to be minimized. Thus, it can be said that the process of consonant insertion in these data leads to the formation of unmarked forms, which is consistent with the general tendency of languages to use unmarked or less marked structures.

It should be noted that in cases where a base ends with a consonant, this language only uses the process of consonant insertion for the purpose of repairing unauthorized structures, and in no case does it make this correction by using the process of re-syllabification, which transfers the final consonant of a syllable (in coda position) to the beginning of the next syllable (onset position). In explaining this issue, it can be said that in Qur'anic Arabic, there is a close relationship between the verb conjugation patterns (i.e., the patterns of verbal inflection that indicate the tense, aspect, mood, and voice of the verb) and the meaning, and any change in these patterns leads to a change in the meaning. Therefore, re-syllabification, which changes the verbal patterns and consequently the meaning, is not permissible in these cases.

Holes (2018, p. 131) argues about the prepositions "min" and "ʕan" which undergo a doubling of the /n/ phoneme. He states that the doubling of the final phoneme only

occurs with a phonological motivation. He explains that in these cases and other lexical categories that end with the /n/ consonant, when a vowel-initial affix is added to them, this doubling occurs. This type of gemination that occurs at the border of two morphemes is an apparent or fake gemination. By apparent gemination, it means a gemination that has no basis in the underlying structure, unlike true gemination.

Explanation of epenthetic [-n] from the vowel hiatus perspective

Vowel hiatus, which refers to a sequence of two adjacent vowels that belong to separate syllables, with no intervening consonant, is disallowed and is considered a marked combination in most languages (McCarthy, 2002: 116-117). For this reason, languages try to correct these illegal sound sequences to conform to their own patterns of syllable structure and phonotactics rules. The primary reason for the formation of vowel hiatus in languages is morphological, syntactic, and morpho-phonological rules. Languages utilize different phonological processes to eliminate these illegal structures, including vowel elision, diphthongization, insertion of a consonant or a mediator phoneme, glide formation/ devocalization, and vowel coalescence. vowel coalescence can occur in three ways: a) two different vowels are combined to create a neutral vowel that possesses the qualitative features of both vowels, b) two short vowels are combined to create a long vowel, and c) two vowels are replaced by a short or long vowel (Sabao, 2013). It should be noted that languages may use more than one method to eliminate these marked structures.

Qur'anic Arabic is one of the languages that does not tolerate vowel hiatus and by applying consonant insertion strategy resolve it. As mentioned earlier, after adding the morpheme /-ī/ to various bases that end with a vowel, the illegal CV(:)V: syllabic structure is formed. By inserting nasal consonants in these cases, not only the onsetless syllable, which is a marked structure, is repaired, but the Obligatory Contour Principle (OCP), which forbids identical consecutive features in the underlying representation, is also met (McCarthy, 1988). Applying this strategy repairs two illegal structures of onsetless syllables and vowel hiatus, leading to a less marked structure due to markedness reduction force.

In some cases, it is observed that in the phonetic representation, the morpheme /ī/ has been deleted. This deletion is observed both at the end and in the middle of the verse. For example:

- yābanī is'rāīla udh'kurū ni'matiya allatī an'amtu 'alaykum wa-awfū bi'ahdī ūfī bi'ahdikum wa-iyyāya fa-ir'habūn (2:40)

I. But those who reject Faith and belie Our Signs, they shall be companions of the Fire; they shall abide therein.

- waqāla alladhī najā min'humā wa-iddakara ba'da ummatin anā unabbi-ukum bitawīlihi fa-arsilūn (12:45)

II. But the man who had been released, one of the two (who had been in prison) and who now bethought him after (so long) a space of time, said: "I will tell you the truth of its interpretation: send ye me (therefore)

- qāla ara-aytaka hādhā alladhī karramta 'alayya la-in akhartani ilā yawmi l-qiyāmati la-ahtanikanna dhurriyyatahu illā qalīlan (17:62)

III. He said: Seest Thou? this is the one whom Thou hast honored above me! If Thou wilt but respite me to the Day of Judgment, I will surely bring his descendants under my sway - all but a few!

- allā tattabi'ani afa'asayta (20:93)

IV. From following me? Didst thou then disobey my order?

There are two main reasons for the omission of the first singular pronoun [ī] in such cases. The first is to create a consistent ending rhythm at verse-final pauses (Fawāṣil). By omitting the vowel sound at the end of the phrase, a kind of vocal harmony is achieved between the ending parts of consecutive verses of a Surah ([Tajabadi & Ghiyas Zareiyan, 2022](#)). However, the only reason for the omission of the given pronoun in the middle of a verse is due to the rules of writing in the Ottoman calligraphy tradition. It is worth mentioning that the inconsistent omission of the word final [ī] in this version of the Qur'an is one of its shortcomings and defects. Indarabi (quoted from [Mortezaei and Fooladi, 2021](#)) after enumerating Qur'anic words in which the letter "ya" [ī] has been omitted, states that the rule in all of them is the same, which is to write "yā" [ī] and if they are written without "ya", it is permissible. However, according to Kordī's belief (2008: 132), the omission of the letter "ya" is considered by Qur'an reciter or reader. For example, in the phrase "wa-ikhshawni", if the reciter pauses on the letter "nūn", it is written without "yā" and if he pauses on the letter "yā", it is written with "yā". In other words, there is no phonological reason for these cases, and in these examples, the final kasra

(short vowel i) indicates the omission of the letter "yā".

Explanation of epenthetic [-n] from the vowel harmony perspective

As mentioned earlier, from the perspective of the science of Tajwīd, epenthetic [-n] is used to prevent the last letter of the previous word from being subjected to kasra or having its final vowel changed before the attached first singular pronoun "ī". In terms of phonology, this issue can be explained by the process of vowel assimilation or vowel harmony. Vowel harmony is a phonological process or co-occurrence restriction that expresses that vowels in a particular domain (phonological, morphological, or syntactic) must be harmonized in a specific feature(s) ([Roca and Johnson, 1999:149](#)). In this process, there is a trigger and a target. The trigger is a vowel whose features spread to other vowels, and the target is a vowel that harmonizes with the trigger. Therefore, considering the research data, which involves cases where the base ends in a vowel, we expect some sort of harmony occurs between the morphemes, where the trigger is a front high vowel /i/ related to the first singular person pronoun and the target is the final vowel of the base. This type of vowel assimilation will be a dominant (vowel of suffix or clitic affects the vowel of base) and regressive assimilation, where the features of the object clitic vowel spread to the preceding vowel and ultimately the final vowel of the base is represented as a short front vowel [i] in the output (phonetic representation) without considering its origin form. The domain of vowel assimilation is two adjacent

syllables. However, in these cases, the insertion of the nasal consonant [n] at the border of two morphemes disrupts the equation. Considering the three roles that consonants can play in the space between two vowels (intervocalic), namely, the role of a blocker, a facilitator, or a trigger ([Hansson, 2021](#)), it can be said that in the examined data, the nasal consonant plays the role of blocker agent. In other words, this consonant, as an opaque linguistic unit, prevents the spread of the features of the trigger vowel to the target vowel, and thus the base vowel cannot harmonize with the trigger vowel. Therefore, opacity phenomenon occurs.

Explanation of epenthetic [-n] from the place of articulation markedness perspective

Through the process of epenthesis languages tend to use a linguistic element that either has the least amount of markedness or it is contextually rich (Itô, 1989). Considering this, the question arises as to whether there is an explanation for the selection of the epenthetic [-n] in Qur'anic Arabic from this perspective. To answer this question, it seems necessary to examine the insertion of the epenthetic [-n] based on the markedness of the place of articulation. Linguists have proposed different hierarchies for markedness of the place of articulation of consonants, among which the following can be mentioned (in the proposed arrangements, markedness decreases from left to right):

Place Markedness Hierarchy:

|*Dors, *Lab > *Cor|

([Prince & Smolensky, 2004](#))

|*Dors, *Lab > *Cor > *Phar|

259

([Lombardi, 2002](#))

Based on the above hierarchy, it can be said that coronal consonants are less marked than other cases in terms of place of articulation ([Paradis & Prunet, 1991](#)). Their high frequency of use in speech and lexicon, their presence in the process of epenthesis, their freer distribution compared to non-coronal consonants, their susceptibility to assimilate in terms of place of articulation, their transparency with respect to vowel harmony, their ability to be the target of asymmetric assimilation, and their potential to be the result of neutralization, are all phonological reasons that confirm the unmarkedness of coronal consonants ([McCarthy & Taub, 1992](#)).

In addition to these factors, evidence of natural markedness confirms this issue. For example, all languages have coronal consonant, places of articulation of coronal consonants occur more frequently compared to other places of articulation, in the process of language acquisition they are learned earlier than other cases and are simpler in terms of production and perception ([Rice, 2007: 82](#)). Therefore, in given data an unmarked consonant or, in other words, consonant with less markedness, has been selected for insertion.

Explanation of epenthetic [-n] from the sonority perspective

Sonority, which is defined as the loudness of speech sounds relative to other sounds of the same pitch, length, and stress, plays a very important role in sound phonotactics, especially in the internal structure of

syllables ([Razinjad, 2018](#)). In other words, the distribution of phonemes within and at the boundaries between syllables is closely related to their sonority. Various scales have been proposed to express the relative sonority of different sound classes, including the scales proposed by [Selkirk \(1984\)](#), [Clements \(1990\)](#), [Kiparsky \(1997\)](#), and [Roca and Johnson \(1999\)](#). This diversity arises from differences in opinions regarding the arrangement of sound categories and the details of each category. In all these scales, an index of sonority has been assigned to each sound category, indicating a numerical value for the inherent value of the segments (phonemes). In these scales, nasals, as well as rhotics, liquids, and glides, constitute the class of sonorants. Sonorant consonants are located higher in this hierarchy than obstruents and lower than vowels. Furthermore, in most of these scales, the sonority index of nasals in the group of sonorant sounds is lower than that of other members. However, [Krämer and Zec \(2020\)](#) have proposed a new classification based on the study of 218 languages belonging to 56 language families, according to which nasals are divided into two categories: those with lower sonority than liquids and those with higher sonority:

obstruents < low nasals < liquids < high
nasals < vowels

They consider this dual characteristic to be a result of the continuant feature. In this way, low-sonority nasals are assigned the value of [\pm continuant] for the continuant feature, while high-sonority nasals are not assigned a value for this feature. Thus, the first group is more like the consonants, while the second

group is more like vowels. Some languages have only one type of nasal sound, while others have both forms. In the second group of languages, low-sonority nasals are expected to appear in the initial position of syllable (onset), and high-sonority nasals in final positions of syllable (coda). Taking into consideration that in all examined data, the nasal consonant [n] has been inserted at the onset of the syllable, and by considering the hierarchy of markedness proposed by [Smith \(2007, p. 265\)](#) for consonants that can appear at the onset of a syllable as *glide > *rhotic > *lateral > *nasal > *voiced obstruent > *voiceless obstruent, it can be said that among the possible consonants which can fill the onset of a syllable, the consonant with the least degree of sonority, that has more consonantal features, has been selected. Furthermore, it should be noted that nasal consonants are considered less marked than other sonorant consonants ([Rice and Avery, 1991](#)). This choice is an example of the general languages' tendency to use phonemes with less degree of sonority in the onset of the syllable, meaning that each syllable starts with a minimum degree of sonority ([Clements, 1990](#)).

Although it is possible to provide a phonological explanation for this issue, it can also be explained based on auditory cues. The human auditory system is sensitive to rapid changes in frequency spectrum. The greater the difference between the frequency spectrum of the consonant in onset position and the vowel at the peak of the syllable (nucleus), the more prominent the transition from the onset to the peak of the syllable will be. This means that selecting a nasal

consonant with less degree of sonority in the onset position is more natural and easier to understand from an auditory perspective. As mentioned earlier, unmarked or less marked forms appear more natural compared to marked forms. Thus, once again, we are faced with the issue of creating a less marked structure, which is ideal for languages.

Explanation of epenthetic [-n] from the articulatory effort perspective

In general, inserting an element increases the level of articulatory effort, which in turn reduces speech rate. The articulatory effort refers to the amount of effort needed to make for physical distance from the static state of various speech organs to the intended place of articulation inside the oral cavity, and subsequently retrieve the speech apparatuses to individual static states (Skaer 2001). Skaer (2005, p.90) ranks a range of phonemes based on the notion of articulatory cost as follows:

Articulatory cost (ranked low to high):

Low vowels > Mid vowels > High vowels > Stops > Fricatives > Nasals > Glides > Liquids (where low cost is favored over high)

Both front vowels and coronal consonants share the [-back] feature and are considered members of the same natural class (Hume, 1996, 1994). Since the nasal [n] is an anterior coronal consonant, its place of articulation is close to the place of articulation of high front vowels in Qur'anic Arabic. In the examined data, a high front vowel comes after nasal consonant. Thereby, it is expected that during the co-articulation process, there is no need for the tongue to traverse a long distance for placing in the place of articulation of the high front vowel

that follows it. Consequently, the articulation time does not last very long, and this results in a decrease in phonetic markedness.

Explanation of epenthetic [-n] based on the vowel nasalization process and perceptual clues

In the articulation of nasal consonant, the soft palate lowers, and a complete closure is created in the oral cavity. In this way, air only flows through the nostrils, but in nasalized sounds, although soft palate is lowered, the oral cavity remains open and air flows simultaneously through both the mouth and the nose. Almost all world's languages have nasal phonemes, but nasalized phonemes are very few. The most common nasalized sounds are vowels, although some consonants can also be nasalized. Vowel nasalization is a type of coarticulation process in which a vowel acquires the quality of an adjacent nasal sound. This coarticulation occurs because, during articulation, the soft palate is lowered, and the velopharyngeal port (PV) is opened simultaneously to allow air to flow through the nose. The amount of nasal airflow near the nasal consonant is greater than that of near the vowel. This airflow that runs inside the nasal vowel creates a kind of nasal resonance which is added to the acoustic representation of the vowel. As a result of this coarticulation, vowels partially or completely become nasalized which is considered a secondary articulation for them. Since secondary articulation is considered, a marked structure compared to primary articulation, it can be said that nasalized vowels are marked.

The position of a vowel in relation to the nasal consonant creates a type of asymmetry in terms of direction of nasality and degree of nasality. Typological frequency studies show that the anticipatory nasalization (VN structure) is more common and widespread than the carryover nasalization (NV structure) in languages (Jeong, 2012). All the data in this study is of the NV type, which is more easily perceived than VN. From the perspective of auditory and perceptual cues, we can argue that since the onset position of a syllable is more salient and has more acoustic cues (Steriade, 2008) than coda position, the epenthetic nasal in the onset position is acoustically salient and easy to perceive. On the other hand, there is an inverse relationship between the degree of salience of a nasal consonant and the degree of vowel nasalization perception. In other words, the more perceptually prominent the nasal consonant is, the vowel in anticipatory nasalization context is perceived as less nasalized (Jeong, 2012). Therefore, the degree of nasalization of the vowel which is following the nasal consonant in the onset position (NV) is reduced (Kawasaki, 1986, p. 83), and the structure seems more natural from an auditory perspective.

From an articulatory phonetics perspective, it can also be argued that firstly, the consonant's place of articulation features in a CV context are very resistant, so on one hand, the place of articulation of the consonant does not change, and on the other hand, the high front vowel which comes after this consonant is less affected by the consonantal effects of this epenthetic element, and to a large extent, retains its

vowel features (Almisreb, Abidin & Tahir, 2016). Secondly, during the co-articulation process, the soft palate is raised, which causes the degree of vowel nasalization to be reduced (Cohn, 1990). In other words, in such cases, only partial nasalization occurs. Generally, in the same phonetic context, the degree of nasalization of long vowels is less than their short vowel counterparts (Delvaux et al, 2008). Based on this, it can be said that inserting a nasal consonant in the onset position of the final syllable reduces the degree of nasalization of final vowel, and thus reduces the overall degree of markedness in the structure. This is because nasalized vowels are considered marked in languages (McCarthy and Prince, 1995), and languages try to avoid marked structures as much as possible. It should be noted that nasalized vowel is not phonemically contrastive in the Qur'anic Arabic language.

Explanation of epenthetic [-n] from the grammatical, phonetic, and prosodic insertion perspective

According to Żygi (2010), consonant epenthesis in languages can be divided into three categories: grammatical insertion, phonetic insertion, and prosodic insertion. The epenthesis types significantly differ from each other with respect to some parameters, as e.g., preferred sounds, domains of application, the role of segmental context, their appearance (or absence) cross-linguistically, or the extent of variation and phonetic explication. Grammatical insertion encompasses cases where insertion occurs due to syntactic, morphological, and morpho-syntactic conditions. In grammatical

insertion of the morphological type, the insertion domain is limited to a word. In other words, insertion occurs between the stem and the affix (suffix or prefix) that is attached to it or within the constituents of compound words. However, in grammatical insertions of the syntactic type, this process occurs between words or, to be more precise, at the syntactic level. On the other hand, phonetic insertion can be observed in the phonetic representation and can be explained based on based on the issues raised in articulatory phonetics, acoustic phonetics, aerodynamic phonetics, and perceptual phonetics. Prosodic insertion involves insertion processes that oversee the prosodic boundaries and domains. Typological studies on consonant insertion suggest that in grammatical insertions, languages tend to use coronal morphemes, while prosodic insertions are typically limited to glottal stops and fricative. Moreover, phonetic insertions tend to favor glides and stop (ibid).

Given the explanations provided, it can be said that the insertions that have taken place in the data of this study are a combination of phonetic insertions, prosodic insertions, and grammatical insertions of the syntactic type.

Conclusion

In the present study, an attempt was made to address the topic of epenthetic [-n], which is one of the terms in the science of Tajwīd, from a new perspective within the framework of markedness theory. In Semitic languages, the main role of this affix, is its syntactic function in determining the object pronoun

suffix. However, the findings of this research from the phonology perspective indicate that:

1. In phonological description of the epenthetic [n] within the framework of markedness theory, attention must be paid to two fundamental points: one is the position of consonant insertion and the other is the quality of the inserted consonant, as each of them refers to a separate universal markedness constraint: one related to the markedness of syllable structure and the other related to a linguistic element that is defined by phonetic, perceptual, and abstract parameters. Thus, it can be said that the main reason for the insertion of nasal [n] is to repair the onsetless syllable structure, which is considered a markedness structure. By inserting this consonant, the onsetless syllable turns into a syllable with an onset and, as a result, the degree of markedness of the existing structure is reduced. In addition, the insertion of epenthetic [n] is the only resolution strategy that Qur'anic Arabic uses to resolve vowel hiatus, which is a marked and unauthorized structure. This consonant is completely fixed and there is no alternative for it.

2. The epenthetic consonant in this context acts as an opaque linguistic unit, preventing vowel harmony between the verbal morpheme and the object pronoun morpheme, and thus preventing a change in the final vowel of the base.

3. By inserting this consonant, transitioning from the onset to the nucleus of the syllable is accompanied by a higher degree of prominence. As a result, the structure with the inserted consonant appears

more natural from the auditory perspective and is perceived more easily.

4. In addition to phonological constraints, the insertion of this consonant also involves language specific complex morphological constraints. This confirms Lombardi's (2002) observation that coronals are never the general phonological epenthetic onset in any language. It implies that coronal insertion cannot be solely explained based on phonological conditions.

5. This nasal consonant is not considered as part of the lexical entries and is only added to the analyzed structures for the purpose of creating a well-formed structure with less markedness. Its absence in the underlying lexical representation (input) makes it a suitable candidate for being an unmarked or less-marked feature, as it is expected that the process of insertion occurs to create structures with the least amount of markedness.

In summary, the insertion of the nasal consonant in various ways reduces the markedness of the examined structures, which is in line with the tendency of languages to use less-marked structures.

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