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## INTONATIONAL PATTERNS OF THE SPEECH ACT TYPES IN SURA AL-GHASHIYAH: AN AUTOSEGMENTAL-METRICAL ANALYSIS

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### Abstract

This study investigates the pragmatic function of intonational variations used in the Glorious Qur'an; namely, sura Al-ghashiyah. It aims to reveal and discuss the intonational patterns of different illocutionary forces in sura Al-ghashiyah. This study is significant research as it investigates the intonational variations of the speech acts types used in Glorious Qur'an particularly in sura Al-ghashiyah based on the autosegmental-metrical phonology (AM) model of Pierrehumbert (1980). This study adopts the autosegmental-metrical phonology model of Pierrehumbert (1980). The study fills the gap in literature as it analyses the data using Tones and Break Indices (TOBI) system, which is considered as the most common way of transcribing the intonation in (AM) model (Goldsmith & Hirschberg, 1992:2). The findings of the study revealed that intonation plays an important role and is responsible for changing the interpretation of the verse by its structure into another one which the speaker intends to convey. It is hoped that this study will provide a deeper understanding of the intended meaning of the verses, which can clarify the interpretation of the verses in sura Al-ghashiyah.

**Keywords:** Intonation and speech act, Autosegmental-Metrical phonology, intonational patterns, sura alghashiyah.

### 1. Introduction

Speech act is one area of investigation in the study of pragmatics. It plays an essential role in the intonation since both pragmatics and intonation can contribute mainly to determining and understanding the intended meaning of the utterance (Leech, 1983:45). In Valievna's words (2013:36) intonation is "the salt of an utterance. Without it, a statement can often be understood, but the message is tasteless and colourless". However, two important factors can determine the pragmatic function of pitch variations in which the first one refers to how different grammatical patterns can transport the same

illocutionary force and the second one to how one grammatical pattern can deliver different illocutionary patterns (Searle (1979)). In this regard, Grice et al. (2000:10) indicate that intonation plays an important role in distinguishing the illocutionary force of utterances, which in turn, can lead to understanding the intended meaning of utterances. Therefore, the importance of the present study stems from the importance of showing how the types of the speech acts can vary in their intonational patterns depending on the context of the verse using the TOBI annotation system as a model of analysis, which has been used in AM model of Pierrehumbert (1980).

## **2. Theoretical Background**

### **2.1 Previous Research**

To our knowledge, there are very few studies on the application of AM model of Pierrehumbert (1980) using the TOBI system in investigating the pragmatic function of intonational variations in Arabic, particularly in Glorious Qur'an except for Mahadin and Jardat's study (2011). This model has been adapted for use in some of the languages like Dutch, Greek, Spanish, Italian, Japanese, Finnish, Korean, and others (Agarwal & Jain, 2010:2). Therefore, this study is different from other studies in that it adopts the AM model of Pierrehumbert (1980) to analyse the texts in Glorious Qur'an using the TOBI annotation system. However, Vaysi (2004) investigates the pragmatic function of intonation in English and Persian to examine the cross-cultural differences in the content of apologetic semantic formulae. The results showed that the intonation problems in EFL learning can be found where the sentence conveys placement of tonics based on the information structure the sentence conveys. Speakers can use pitch range and accentual phrasing to mark intention-based information status in social interactions. In 2010, Agarwal and Jain compared the Indian language with different languages that used the TOBI system. The findings showed that the TOBI model system is useful for developing a labelled prosody system to identify the conversion of emotions in a speech. Besides, it was found that there are differences between Hindi and English syntax structure. The Hindi TOBI model requires to be developed so that it can accommodate the features of Hindi language. Research undertaken by Mahadin and Jardat's (2011) study is of interest since it is the only Arabic study, which examines the intonational variations in Arabic; namely, Irbid dialect in terms of AM of Pierrehumbert (1980). Their study focused on investigating the intonational variations in different utterances of Irbid dialect with the directive and commissive illocutionary forces. The main results of his study indicated that intonation plays a role in changing the interpretation of an utterance and it can determine the illocutionary function of an utterance when there is no other illocutionary marker. Another study was carried out by (Gioacchino & Jessop, 2011) to investigate the uptalk or high-rise terminals of female teenagers by measuring the pitch excursions that speakers produce in relation to the overall pitch range of the phrase in which it was produced. The results revealed that the excursions produced in uptalk fall in the mid-range of

risers, sleeper than those of other declarative statements, but not as steep as those produced in question intonation.

## 2.2 Autosegmental-Metrical Framework

In 1980, Janet Pierrehumbert presented a model in his thesis, which marked the beginning of a new period in intonational research. The term belongs to Ladd (1996), who coined it as Autosegmental-Metrical (AM)(Gussenhoven, 2002:271–284). This model represents a connection between two sub-systems of phonology required for intonation. It is autosegmental because it has separate tiers for segments (vowels and consonants) and tones (H)igh and (L)ow. It is metrical because it suggests that the elements in these tiers are contained in a hierarchically organized set of phonological constituents to which the tones refer in several ways (Grice & et al., 2000:24). In this model, Pierrehumbert and Hirschberg (1990) state that all the tones in a melody contribute compositionally to the pragmatic interpretation of an utterance. Pierrehumbert (1980) uses a new system of notation, which is called Tones and Break Indices (TOBI). TOBI is regarded as the most frequent way to transcribe intonation, which is used for prosodic annotation of speech in American English (Gioacchino & Jessop, 2011:2). In particular, TOBI system is composed of two main categories of prosodic events: the first tone is called the pitch accents, which is related to the stressed or strong syllables in the segmental tier, i.e., the word's relative prominence in the utterance and the second one is called the edge tone, which is related to the edges of a phrase (Mahdin & Jardat, 2011: 243). In general, there are four main tiers in this system:

1) A tone tier, which includes the pitch events that are composed of either monotonal or bitonal tones and they are marked with (\*) (e.g., H\* or L\*). The monotonal tones consist of one H or L tone and the bitonal tones consist of starred pitch accents when they are preceded by a leading tone or followed by a trailing tone. In addition, other diacritics are '-' (e.g., L-) indicates intermediate phrase boundaries (accents), '%' (e.g., H% or L%) indicates a boundary tone and all the unaccented syllables are left without markings (Fletcher, 2004). Pierrehumbert suggests six possible pitch accents: (H\*, L\*, L\*+H, L+H\*, H\*+L, H+L\*) (Ladd, 1996:79).

2) An orthographic tier transcribes all words in the utterance (Gioacchino & Jessop, 2011:6).

3) A break-index (BI) tier describes the breaks between boundaries of the words in the utterance by labelling the end of the word for the subjective strength of its association with the next word, i.e., it marks the level of disjuncture between the two words (Jilka et al., 1999: 85). Hirschberg (2006:1) states that break indices define two levels of phrasing which is a minor or intermediate phrase (level 3) and major or intonational phrase (level 4).

Pierrehumbert labels four break indices and he gives a numeric system as follows:

BI 0. It marks the cliticization and it represents no break between words. The words may carry only one pitch accent.

BI 1. It marks the normal word boundaries and the words should carry at most one pitch accent each.

BI 2. It marks the strong disjuncture or a noticed pause between the boundaries of the words. Some labelers find that BI 2 may be used for the mismatch between the boundaries while others describe this index as larger than a 1 but smaller than a 3.

([http://prosodia.upf.edu/sp\\_tobi/en/index.php](http://prosodia.upf.edu/sp_tobi/en/index.php): ).

BI 3. It marks the end of the boundaries of the intermediate phrase. The intermediate intonation phrase boundary refers to the single phrase tone from the last pitch accent to the boundary tone.

BI 4. It marks the end of the boundaries of the intonational phrase.

4) A miscellaneous tier. It shows additional events or comments like hesitation, stuttering, etc.

### 2.3 Searle's Classification of Speech Acts

Searle (1979: 14) describes the speech act as actions of speaking by which the speaker sends his message or intention to the hearer. There are three important elements: the first one is the locutionary act factor, which refers to the act of saying something depending on the literal meaning of the context and the second act is the illocutionary act, which reflects the intended meaning of the speaker in his communication to the hearer, while the third one is the perlocutionary act which means the hearer's interpretation of what the speaker says. It is the act of causing a certain effect on hearer and others (Leech, 1993:316). Moreover, Searle (1997) classified the speech act into five categories:

1- **Representatives refer to the** illocutionary acts where the speaker connects between the propositional content of his/her saying and reality: state, believe, conclude, deny, and report.

2- **Commissives refer to the** illocutionary acts where the speaker dedicates himself to action happen in the future: promise, threat, vow, swear, and pledge.

3- **Directives** refer to the illocutionary acts where the speaker tries to make the hearer to carry out some action: warn, order, command, insist, dare, request, challenge, and ask.

4- **Expressive** refer to the illocutionary acts in which the speaker expresses his psychological or mental attitude towards a state of affairs: welcome, thank, deplore, congratulate, greet, and apologize.

5- **Declaratives** refer to the illocutionary acts where the speaker makes or introduces a state of affairs to change the external reality: marry, name, bless, and arrest.

It is important to mention that this study focuses on investigating all the types of speech act used in sura al-ghashiyah and their tone patterns rather than the break indices.

### 3. Research Questions

To achieve the objectives, the present study addressed the following two research questions:

1. What are the types of speech acts of the verses with their function that are used in sura al-ghashiyah?
2. What are the tone patterns of the speech acts types in sura al-ghashiyah?

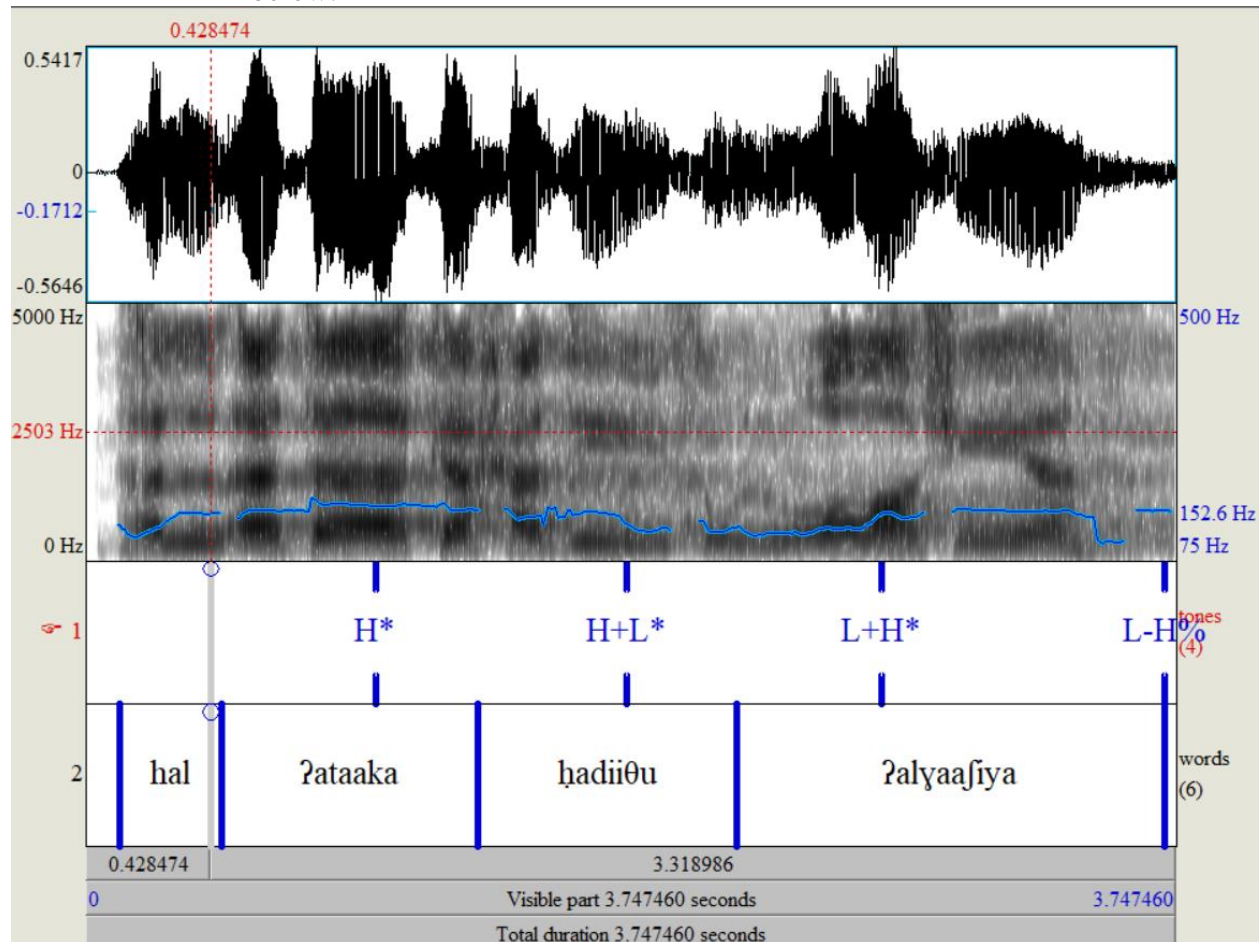
### 4. Methodology

Verses were selected from sura al-ghashiyah. Ten verses were selected only to avoid repetition and to obtain a variation in the results of the data. Sura al-ghashiyah in this study is recited by sheik Mishary Rashid Alafasy. He has a very clear tone, which is clearly observed through analysing the verses that are recited by him using the Praat programme.

### 5. Data Analysis

The selected Arabic verses were transcribed and analyzed using the Praat software program. Praat is a computer software program used to analyze, synthesize, and manipulate speech and other sounds. It can also create graphics with high publication quality (Boersma, 2012: 4). The Praat program was used for acoustic analysis and it is automatically aligning the transcriptions to create Praat text grids with separate word and phoneme tiers. The pitch in this study is a perceptual concept, which is realized as a fundamental frequency (F0). The data were analyzed according to the TOBI annotation system in the AM framework. There are two tiers in which the first tier shows the tone of the stressed syllable in each word and the second tier

transcribes phonetically the stressed word in the verse as shown in Figure 1 below:



**Figure 1: Praat analysis of the verse /hal ʔataaka ḥadiiθu ʔalyaaʕiya/**

### 5.1 Intonational Patterns of Speech Acts in Sura Al-ghashiyah

This section presents the analysis of the intonational patterns, which are used with all the categories of speech acts in sura al-ghashiyah. Moreover, the main intonational patterns and the pragmatic influence of intonation on these acts are identified. The translation of the verses from Arabic into English is based on Maulawi Sher Ali (Ali, 2004: 732-733). Three types of speech acts were recognized, introduced, and analyzed: representatives, commissives, and directives based on the TOBI system in terms of the AM model.

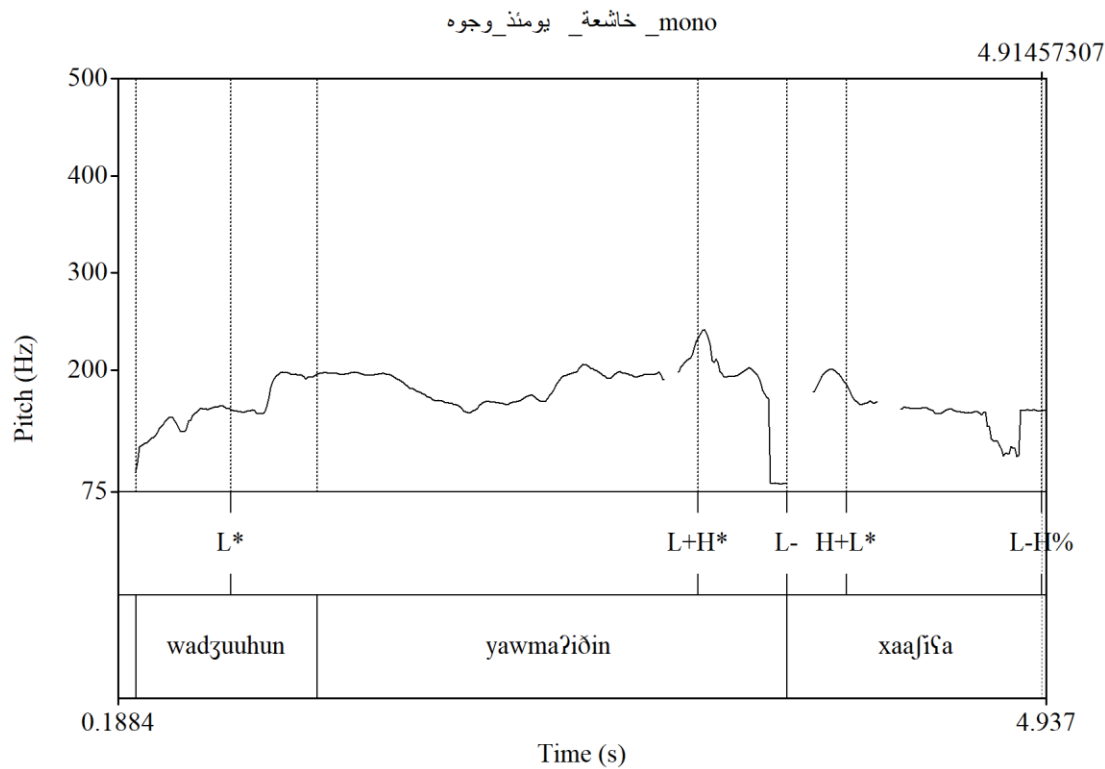
#### 5.1.1 Representatives

Representatives are noticed in four verses, which function as a statement and they have declarative grammatical patterns. These four verses are as follows:

1) " (2) *وَجُوهٌ يَوْمَئِذٍ خَانِئَةٌ* " "Some faces on that day will be downcast"

- 2) " (4) تَصَلَّى نَارًا حَامِيَةً" "They shall enter a burning fire"
- 3) " (8) وَجُوهٌ يَوْمَئِذٍ نَاعِمَةٌ" "And some faces on that day will be joyful"
- 4) " (10) فِي جَنَّةٍ عَالِيَةٍ" "In a lofty Garden"

Below an example of acoustic analysis of one representative speech act which shows the intonational pattern of the verse " (2) وَجُوهٌ يَوْمَئِذٍ خَاشِعَةٌ" "Some faces on that day will be downcast" as shown in Figure 2:



**Figure 2: Praat analysis of the verse /wadzuuhun yawmaʔiðin xaafisa/**

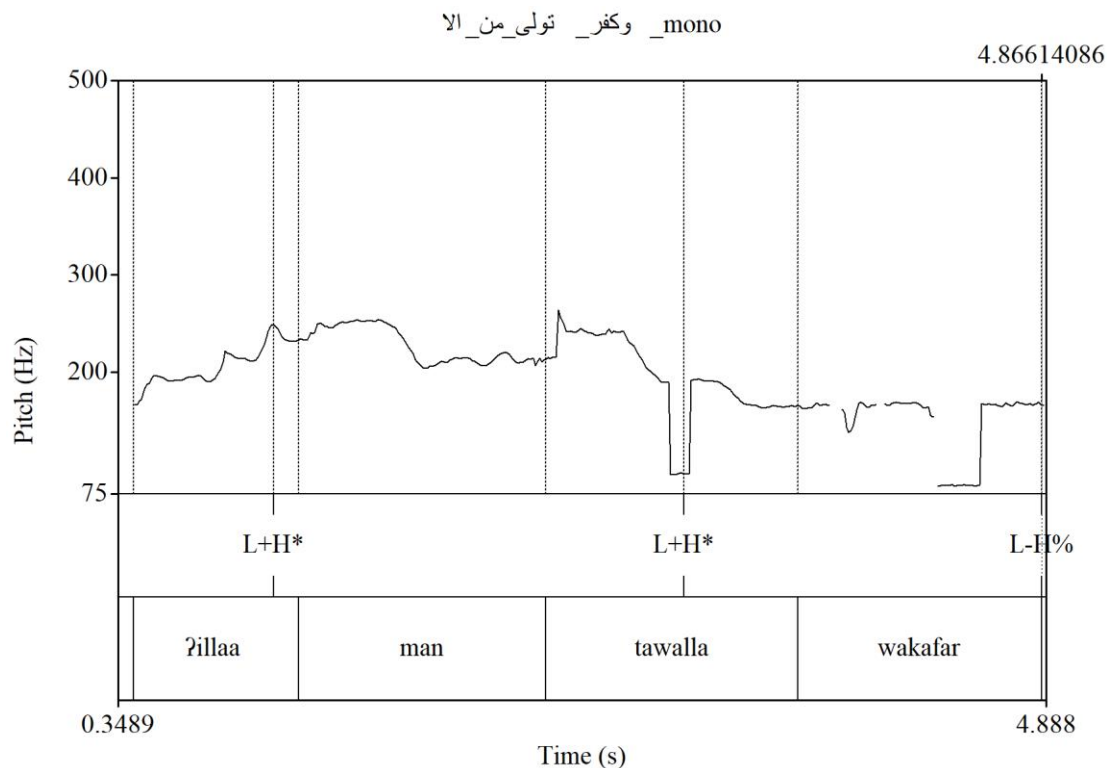
As indicated above, the waveform of the utterance /wadzuuhun yawmaʔiðin xaafisa/. This waveform has an (L+H\* L-H%) pattern. There are three prosodic words: wadzuuhun, yawmaʔiðin, and a xaafisa. The syllable “ʔið” is clearly higher and more prominent than other syllables in other words since the pitch value of the syllable “ʔið” is 241.58 Hz. The pitch starts low to form a bitonal pitch accent (L+H\*) of the syllable “ʔið” since the pitch starts from fall to high within the same syllable. Then, the pitch rises again to form a boundary tone (L-H%). The verse has a declarative structure and functions as a statement, which carries a falling-rising tone. Here, Allah wants to highlight that many faces on that day (the overwhelming Day) will be khashi’ah, which means that these faces will look humble. Allah emphasizes those who selected the worldly life and they have labored and toiled for things other than Islam. The high pitch is used to attract the disbelievers whose faces will be full of horror and fear.

### 5.1.2 Commissives

Commissives were noticed in three verses, which function as threatening and they have the declarative grammatical pattern. These three verses are as follows:

- 1) (23) "إِلَّا مَنْ تَوَلَّى وَكَفَرَ" "In a lofty Garden"
- 2) (24) "فَيُعَذِّبُهُ اللَّهُ الْعَذَابَ الْأَكْبَرَ" "Allah will punish him with the greatest punishment"
- 3) (25) "إِنَّ إِلَيْنَا إِيَابَهُمْ (26) ثُمَّ إِنَّ عَلَيْنَا حِسَابَهُمْ" "Unto us surely is their return, Then, surely, it is for us to call them to account"

Accordingly, below an example of acoustic analysis of one commissive speech act which shows the intonational pattern of the verse "إِلَّا مَنْ تَوَلَّى وَكَفَرَ" (23) "In a lofty Garden" as shown in figure 3:



**Figure 3: Praat analysis of the verse /ʔillaa man tawallawakafar/**

As indicated above, the waveform of the utterance /ʔillaa man tawallawakafar/ has an (L+H\* L-H%) pattern. There are three prosodic words: ʔillaa, tawalla, and wakafar. This verse is declarative, but it functions as a threatening. It is noticed that the most basic pitch accent occurs on the syllable /llaa / in the exceptive particle 'ʔillaa' and 'wakafar' since the pitch value of the syllable



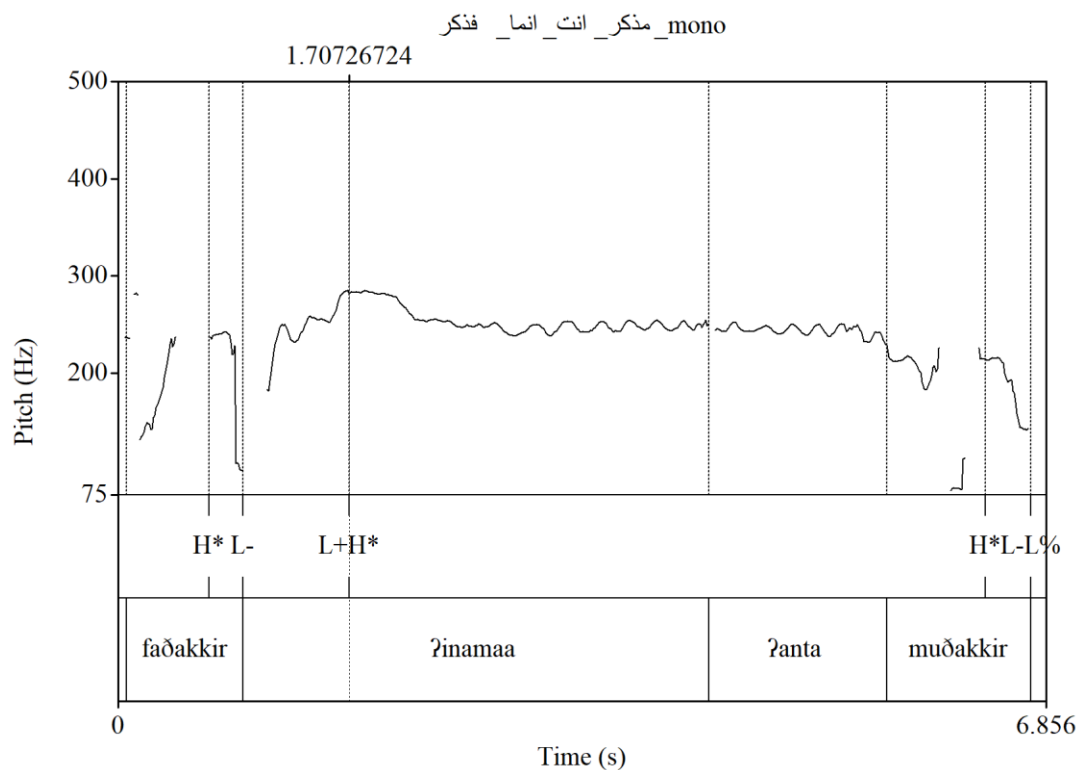
/llaa / is 248.84 Hz. All the prosodic words have a bitonal tone which is (L+H\*) since the pitch starts from fall to high. Then, the pitch ends with a boundary tone (L-H%). In this verse, Allah addresses his messenger by confirming on disbelievers who deny Allah. The high pitch is used because Allah warns again about the punishment of the hereafter.

### 5.1.3 Directives

Directives were noticed in three verses, which function as a warning and they have the interrogatives and imperatives grammatical patterns. These three verses are as follows:

- 1) " (1) هَلْ أَتَاكَ حَدِيثُ الْغَاشِيَةِ " "has the story reached thee of the overwhelming (Event)?"
- 2) " (21) فَذَكِّرْ إِنَّمَا أَنْتَ مُذَكِّرٌ " "In a lofty Garden"
- 3) " (18) "وَأَلَى السَّمَاءِ كَيْفَ رُفِعَتْ" "And at the heaven, how the sky is raised high"

Below an example of the acoustic analysis of one directive speech act which has the imperative grammatical pattern. The intonational pattern of the verse " (21) فَذَكِّرْ إِنَّمَا أَنْتَ مُذَكِّرٌ " "In a lofty Garden" is shown in figure 4 below:



**Figure 4: Praat analysis of the verse /faḏakkir ʔinama ʔanta muḏakkir/**

As indicated above, the waveform of the utterance /faḏakkir ʔinama ʔanta muḏakkir/ has an (L+H\* L-L%) pattern. There are three prosodic words:

faḏakkir, ʔinamaa, and a muḏakkir. This verse is imperative, but it functions as a warning. The most basic pitch accent is noticed on the ‘faḏakkir’ and ‘ʔinamaa’, but it is clear that the pitch accent on the syllable ‘ʔin’ in the word ‘ʔinamaa’ is higher and more prominent than the syllable ‘kir’ in the word ‘faḏakkir’ since the pitch value of the syllable ‘ʔin’ is 285.06 Hz and the syllable ‘kir’ is 242.14 Hz. The pitch starts high to form a bitonal pitch accent (L+H\*) of the syllable ‘ʔin’ since the pitch starts from fall to high within the same syllable. Then, the pitch rises again to form a boundary tone (L-L%). In this verse, Allah warns Prophet Muhammad (S) only to remind the disbelievers. Allah emphasizes on the messenger that he is only a reminder for those people because he cannot force them to obey Allah. The low pitch is used because Allah addresses the prophet Muhammad (S).

## 6. Results and Discussion

Table 1 below summarizes the structure of the selected verses with their function, as well as the intended meaning of each one. In addition, the tone pattern of the speech acts types of these tone patterns are also introduced:

Table 1: Analysis of Verses

No	Verses	Type of speech act	Structure	Function	Intention	Tone Pattern
1	wadzuuhun yawma?iðin xaafifa وَجُودٌ يَوْمَئِذٍ خَاشِعَةٌ	Representatives	declarative	statement	Allah emphasizes those who selected the worldly life and they have labored and toiled for things other than Islam	L+H* L-H%
2	taşla naaran haamiya تَصَلَّى نَارًا حَامِيَةً		declarative	statement	Allah continues his talking about those who selected the worldly life and he confirms that they will throw themselves into the fire because of their bad works	L+H* H-L%
3	wadzuuhun yawma?iðin naafima وَجُودٌ يَوْمَئِذٍ نَاعِمَةٌ		declarative	statement	Allah addresses the believers as they will have joyful and softness faces in the day of overwhelming	H* L-L%
4	fii dzanatin faaliya فِي جَنَّةٍ عَالِيَةٍ		declarative	statement	Allah promises the believers that they will be in a high place in heaven which is called paradise	H* L-L%
5	?illaa man tawallawakafar إِلَّا مَنْ تَوَلَّى وَكَفَرَ	commissives	declarative	threatening	Allah addresses his messenger by confirming on disbelievers who deny Allah. The high pitch is used because Allah warns again about the punishment of the hereafter	L+H* L-H%
6	fajuşadibuhu ?allaahu ?alşadaaba ?al?akbar فَيُعَذِّبُهُ اللَّهُ الْعَذَابَ الْأَكْبَرَ		declarative	threatening	Allah continues his saying from the previous verse that he will punish the disbelievers and he described this punishment as the	H* L-L%

					greatest punishment. The low pitch reflects the long-standing struggle of the messenger who kept inviting people to Islam, but they kept turning away it until they reach this point	
7	ʔinna ʔilaynaa ʔijaabahum أَنَّ إِلَيْنَا إِيَابَهُمْ θumma ʔinna ʔalaynaa hisaabahum ثُمَّ إِنَّ عَلَيْنَا حِسَابَهُمْ		declarative	threatening	Allah continues his saying to the disbelievers that there is no doubt that they will return finally to him who will be taken the task of their accounting by himself. In the first intonational phrase, the high pitch is used to show Allah 's threat to the disbelievers while in the second intonational phrase, the low pitch represents the end of the sura as Allah shows the final torture for the disbelievers	H*+L L-H% H+L* L-L%
8	has ʔataaka ḥadiiθu ʔalyaafiya هَلْ أَتَاكَ حَدِيثُ الْغَاشِيَةِ	Directives	interrogative	warning	The sura opens with an introductory which aims to awaken people's consciences and remind them about the greatness of Allah	H* L-H%
9	faḏakkir ʔinamaa ʔanta muḏakkir فَذَكِّرْ إِنَّمَا أَنْتَ مُذَكِّرٌ		imperative	warning	Allah warns the prophet Muhammad (S) to remind the disbelievers. Allah emphasizes on the messenger that he is only a reminder for those people because he cannot force them to obey Allah	L+H* L-L%
10	waʔilaa assamaaʔi keifa rufiʔat وَأَلَى السَّمَاءِ كَيْفَ رُفِعَتِ		interrogative	question	Allah wants the people to think to keep their attention about the creation of the universe. The low	H+L* L-L%

					pitch is used to make the people wonder how the sky is raised with bright stars and all the beauties that attract everyone's attention	
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As shown above, there are generally three types of speech acts, which are representatives, commissives, and directives. These are summarized as follows:

1. The representative illocutionary forces used in this study are declaratives which have the function of a statement. The observed tone patterns of the statements are as follows:

- a. L+H\* L-H% is bitonal tone which is used to show emphasizing and to address the disbelievers.
- b. L+H\* H-L% is bitonal tone which is used to show continuation and confirmation and to address the disbelievers.
- c. H\* L-L% is monotonal tone which is used to show promising and satisfaction and it is used to address the believers.

2. The commissive illocutionary forces used in this study are declarative, which have the function of threatening. The observed tone patterns of the threatenings are as follows:

- a. L+H\* L-H% is a bitonal tone to show a warning and it is used to address the disbelievers.
- b. H\* L-L% is a monotonal tone to show invitation and it is used to address the disbelievers.
- c. H\*+L L-H% is a bitonal tone which is used to show a warning and to address the disbelievers.
- d. H+L\* L-L% is a bitonal tone which is used to show finality and to address the disbelievers.

3. The directive illocutionary forces which are used in this study are interrogatives and imperatives. The directive interrogatives have the function of warnings and questions while the directive imperatives have the function of warnings. The tone patterns of the warnings and questions are summarized in (a) and (b), respectively as follows:

- a. H\* L-H% is a monotonal tone which is used to show reminding and to address the disbelievers.
- b. H+L\* L-L% is a bitonal tone which is used to show wondering and to address the disbelievers.

Moreover, the tone pattern of the directive warning is as follows:

- a. L+H\* L-L% is a bitonal tone which is used for warning and to address Prophet Muhammad.

It is important to mention that Chahal (1999), El-Hassan (1987), Al'amayreh (1991) and Al-Ghamdi (2007) state that the declarative pattern in Arabic contains a high tonic syllable or nuclear accent which is followed by a low

falling to the bottom or middle of pitch range. This study indicates that declaratives could be used to express different illocutionary forces of representatives or commissives because they co-occur with different intonational patterns and pitch heights to convey several illocutionary forces. The pattern of declarative statement has a high nuclear accent followed by either a falling-rising boundary tone or a rising-falling boundary tone. Declarative threatening patterns contain a high and low nuclear tone followed by either falling-rising or falling boundary tone. In addition, the imperative warning pattern has a high pitch range at the leftward tune that falls at the end of the rightward boundary of the tune and this is a very clear notice in the verse “faḏakkir ?inamaa ?anta muḏakkir” “فَذَكِّرْ إِنَّمَا أَنْتَ مُذَكِّرٌ”. In this regard, this study is in line with Al-'ani (1970:92) who has found that the highest level of command tune occurs on the last stressed syllable which falls then on the bottom of the rightward boundary range. Interrogatives could be used to convey either a warning or a question. The warning has a high nuclear accent followed by a falling-rising tone at the rightward boundary tone. In their study, Mahadin and Jardat (2011:247) state the same thing when they found that the pattern (H\*+L L-H%) is used for warning. Finally, the question has a low nuclear pitch accent followed by an (L-L%) boundary tone.

## 7. Conclusion

Considering the previous discussion, the study has concluded the following major findings:

- 1) The findings revealed that intonation plays an important role and is responsible for changing the interpretation of an utterance, where the speaker intends to convey.
- 2) There are three types of speech act, which are used in sura Al-ghashiyah. The first one is the representatives and the second type is the commissives, while the third one is the directives. It was noticed that the statement and threatening can be attained by declarative and the warning can be attained by interrogative and imperatives, but the question can be attained only by interrogative.
- 3) In general, the most common tone, which is used by the reciter sheik Mishary Rashid Alafasy is the bitonal tone pattern. On one hand, the rising tone is the most common pitch accent tone, which is used in a declarative statement and threatening, as well as interrogative and imperative warning. The rising tone indicates emphasizing, continuation, confirmation, warning, invitation, and reminding. It is used to address the disbelievers. On the other hand, the falling tone is a less common tone, which is used for wondering and finality to particularly address Prophet Muhammad and his believers.

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