The Use of Information Tones in Obama's Speech: A Phono-Pragmatic Analysis

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Abstract
Intonation plays an important role in understanding the intended meaning of speech since neglecting the study of intonation in the discourse leads to a misunderstanding of some pragmatic meaning. This study attempts to answer these two questions: what is the pragmatic function of the information tone types that are employed in Obama's speech concerning the termination component? and what are the pragmatic function of the proclaiming and referring tones that are employed in Obama's speech concerning the dominance and non-dominance factor?. It aims to investigate the types of information tones in Obama's speech concerning the termination component and dominance/non-dominance factor based on Brazil's model (1997) of discourse intonation. This study confines itself to the American political interview and it is a qualitative study. The findings show that all the information tone types (proclaiming, referring, and level) are used in Obama's speech and the high termination is most common level, which is used by Obama in his speech in order to emphasize the information and capture the attention of the interviewer. Generally, it was found that the dominance factor was higher than the non-dominance factor, which reflects that Obama took his status as the controller of the discourse during his speech with the interviewer and most of his speech carries contrastive information, which contradicts the interview's expectation. This study is beneficial for foreign learners and those who are specialists in phonology and pragmatics since it can clarify the function of intonation through the interaction of participants in context.
Keywords: discourse intonation, dominance/non-dominance, pitch level, proclaiming tone, praat program, referring tone

Introduction

Intonation can support the meaning of the context since it can convey several aspects of the context, particularly the pragmatic sense of discourse. Traditionally, there is no much interest in intonational meaning like the intonational form. On the other hand, little attention has been given to the pragmatic uses of intonation concerning the fields of semantics and pragmatics fields (Prieto, 2015). As a result, there is no agreement among linguists on how to integrate and analyze the intonational meaning across languages into a unified prosodic, semantic, and pragmatic approach (Prieto, 2015). The study of the form, meaning, and function of the intonation, which concerns the investigation of the more extensive stretches within the level of the sentence is called discourse intonation (Vilches, 2015). This approach began in the British Isles, then it was developed by Brazil (1975, 1978, 1985, 1997), who worked with others (Brazil, 1980) in connecting the discourse analysis with intonation, where the discourse intonation involves studying intonation in terms of user, its function in context, and its communicative value (Vilches, 2015). From Brazil's perspective" the communicative value of intonation is related to the purpose that a particular piece of language is serving in some ongoing, interactive event. " (Brazil, 1995, p.240). Brazil's discourse intonation model (1997) is mainly concerned with the relationship between the intonational features of an utterance and the context of interaction. The importance of this study stems from the significance of showing how the components in Brazil's discourse intonation model are used to investigate the intended meaning and its function in Barack Obama's speech. This study adopts Brazil's model of discourse intonation in investigating the referring and proclaiming tones, which are employed in Obama's speech and how they convey the meaning of taking the role of the speaker whether he is dominant or non-dominant in the discourse. This study aims to provide a more profound and comprehensive picture of the intended meaning behind Obama's speech.

Theoretical Background

Previous Research

On the one hand, very few studies were conducted to investigate linguistic issues since many studies adopted Brazil's discourse intonation model into the pedagogical aspects. On the other hand, it is essential to mention that there are no previous studies, which applied discourse intonation in investigating political interviews except for a prior study by Herczeg-Deli (2012). This study focuses on elicitation of BBC radio interviews, and the results showed that prominence and tone are essential in the communicative role of an utterance. Selting (1987) presents a descriptive study of the intonation in natural conversations based on discourse intonation, which is purely additive criteria and the results reveal that the role of intonation can only be analyzed by regarding its location with a variety of phenomena of utterance and conversational organization.

Germani and Rivas (2011) compare between Brazil's discourse intonation model and Halliday's systematic functional phonology to show the differences and similarities between the two approaches. The study shows that both approaches are based on the intended meaning in the utterance, but they differ in the types of the tones used in both approaches as well as the systematic functional approach is based on the combination of lecixo-grammatical and phonological systems. Odeyemi investigates the use of intonation in an advertisement in radio and television medium in Nigeria. His findings reveal that the prominence is used according to the context of advertisement and the function of the referring tones, which are used in advertisements, can attract the listener's attention (Odeyemi, 2017).

Moreover, most studies that are concerned with pedagogical aspects share the same aim, which involves the role of discourse intonation in teaching intonation for English as a foreign language (EFL) learners and discover the communicative value of intonational characteristics. In this respect, Goh (2005) examines speeches of four different educational and social Singaporean speakers in Singapore to describe the intonation features (prominence and tone) and survey the communicative value of intonation features. The results showed that intonation features of these four speakers are affected by the linguistic environment in which English is acquired. Another study by Kumaki (2003), who explored the intonational features, which are largely taught and how they are treated in the context of EFL learners at a high school in Japan. It was found that most of the intonation treatment in the authorized English textbooks is based on the grammatical approach rather than attitudinal or discourse. In his study, Hitotuzi (2007) argues for the importance of long-term experiments on the applicability of Brazil's discourse intonation model with beginners and his results indicated that teaching intonation of the key, termination, prominence is not an easy task to non-native teachers because of the limitations of the target language linguistic experience. Likewise, Rui (2007) investigated the Chinese EFL learner's intonation features in an interactive context. The findings showed that Chinese EFL learners are different from British native speakers in their application of tone units, prominence selection, and tone choice. This difference might be due to the low English proficiency level of Chinese learners and their lack of awareness of the communicative and discourse function of intonation. In the same line, Mat Nayan and Setter (2016) investigated prosodic features and the cooperative tone of Malay English. Their findings indicat that the collaborative tone has a different function, which is different from the function of rising and fall-rise tones as it places extra emphasis on the important information in the context. Nikolić (2018) applies discourse intonation in discovering the overall coverage of intonation activities across the series and the quality of these activities in five EFL student's books series. The major finding is that the intonation activities are underrepresented in the EFL student's books, and the discourse intonation should be focused on the activities. Sadoune (2018) applies discourse intonation on second-year undergraduate students in acquiring intonation. The findings reveal that most students misuse the falling tone as they use a broader pitch range than that of English, and they have problems in identifying the placement of prominence. Besides, discourse intonation can be taught in EFL classes as a theory of description, and it needs more training in teaching. Vilches (2015) conducts a study on teaching English intonation by Spanish speakers within the discourse mode of second language L2 oral presentation. The findings reveal that most of the subjects acquired a more extensive choice of the four prosodic parameters and most of them fail to connect the forms to their appropriate pragmatic functions to express dominance and control in an L2 oral presentation.

Brazil's Model of Discourse Intonation
Brazil's model of discourse intonation has been refined from Halliday's theory of intonation (Coulthard, 2014). In this regard, Malmkjaer (2009) states that Brazil tries to combine the intonation with pragmatic functions through his theory of discourse intonation in the context in which the utterance or discourse occurs. It is worth to mention that Brazil (1975) adapted Halliday's (1963) five tones and the meaning, which is based on phonological typology. His model was in opposition to the American school (Chomsky & Halle, 1968; Liberman & Prince, 1977; Pierrehumbert, 1980), which constituted the generative phonology.

There are five categories in Brazil's model of discourse intonation: tone unit, prominence, tones, key, and termination. In Brazil's (1997) words, the tone unit is "the minimal stretch of speech for assembly plans are made." In terms of intonation, the full stop is a natural tone boundary (pitch sequence) (Roach, 2010). In this regard, Brazil (1997) argues that pause marks the boundaries of the tone unit. A tone unit may contain either one or two prominent syllables, whereby one of them refers to the prominent syllable, which is called the onset (key); the other one refers to the tonic syllable, which is called the tonic syllable (termination) (Ibid.). The tonic syllable commonly occurs at the end of the boundary tone. However, it depends on whether the word is selective or not in a specific circumstance of the utterance (Hitotuzi, 2007). Besides, the tonic syllable is different from the prominent syllable, where the first is characterized by a change in pitch while the non-tonic syllable is not. As far as the key and termination are concerned, the first means the relative pitch level of the first prominent syllable within a tone unit and the second one indicates the relative pitch level of the last prominent syllable within a tone unit (Garcia Romero, 2013). The pitch level of key and termination can be high, mid, and termination; each one gives different information. The meanings of the key and termination with their symbols are summarized in the table 1.

Table 1. *Meanings of key and termination*

Pitch level of key	Meaning	Pitch level of termination	Meaning
High key ↑	Contrast	High termination↑	Invitation to adjudicate
Mid-key →	Agreement	Mid-termination→	Pressure to agree
Low key ↓	Equivalence	Low termination↓	Equivalence

Source: (Brazil, 1997)

The example below shows how the speaker uses the high termination expecting a (yes/no) contrastive answer and the hearer uses the high key, which sounds like a plea or threat (pairs of slashes will signal tone unit boundaries):

A: // ↘ will you ↑come //   B: // ↘ ↑yes//

Moreover, discourse intonation can determine the function of the tone units in two ways: proclaiming and referring tones. The proclaiming tone refers to additional or new information of the common ground, which indicate by a pitch ends with a falling tone, while the referring tone refers to already given or known information, which is shared or as part of the common ground that is indicated by a pitch ends with a rising tone (Sadoune, 2018). Also, there is the third function, which rarely occurs, and it is neither a proclaiming nor referring tone; it is used for routine and formulaic situations, i.e., wording the utterances more than expressing interpersonal interactivity (Kumaki, 2003). Another important contribution to the discourse intonation model is the speaker's assertion of dominance and control within specific discourse modes. Hence, the dominant speaker means the speaker, who controls the discourse and s/he can use either proclaiming plus tone (rise-fall) or referring plus tone (rise) to be the controller of the discourse. By contrast, the non-dominant speaker means the speaker, who does not take the controlling role and s/he can use either proclaiming tone (fall) or referring tone (fall-rise) (Vilches, 2015). Furthermore, Brazil (1985)

states that some tone choices can be "participant- specific" in specialized discourse types in which the speaker is dominant and s/he has a greater responsibility and freedom for the discourse in making linguistic choices like the teacher in the classroom, the interviewer in the interview, a speaker giving a speech in front of an audience, etc., which is different from the conversation in which speakers have equal speaking rights. The table 2 shows the types of tones with their symbols and their meanings.

Table 2. *Types of tones with their symbols and their meanings*

Type of Tone	Symbol	Meaning
Proclaiming (p)	fall ↘	Unshared information (divergence between participants)
Proclaiming plus tone (p+)	rise-fall ↗ ↘	Unshared information (divergence between participants) and dominance
Referring (r)	fall-rise ↘ ↗	Shared information(convergence between participants)
Referring plus tone (r+)	rise ↗	Shared information (convergence between participants) and dominance
Level tone	(o) →	Formulaic(routine)

Source: (Brazil, 1997)

Brazil (1994) gives examples in which the first one refers to a speaker, who speaks in a public announcement with a rising tone, and the second one refers to a speaker, who speaks in a more casual situation with using a fall-rise tone.

1. // r+ our SPEAker for this EVening // p is doctor Agnes THOMson // r+ she TOOK her MASter's degree // r+ and her DOCtorate // p at HARvard //

2. // r toNIGHT'S SPEAker's // p AGnes THOMson // r she GOT her MASter's // r and DOCtorate // p in the STATES //

Other examples show that the non-dominant form with the fall-rise tone, which is used by the speaker when s/he is making sure of their benefit including occasions, i.e., the speaker uses 'making sure' to ask for help (Ibid.):

// r+ can i HELP you //
// r CAN you HELP me //

In this study and according to Brazil's discourse intonation, the prominent syllables are capitalized, and tonic syllables are capitalized and underlined. Arrows indicate the tones (proclaiming, referring, and level) immediately after the initial boundary sign. As to the pitch level of the key and the termination, the arrows are placed before the prominent syllables of the key and termination. Below is an example that shows a tag question that carries referring tones with mid or low termination (Brazil, 1997:149-150):

// p she's a CLEVer GIRL // r+ is↓MARy //
Or // p she's a CLEVer GIRL // r is↓MARy //

In the first example, 'She's a clever girl' is proclaimed as a truth that the speaker regards it to be necessary to recognize, 'is Mary' with referring tone projects an assumption of mutuality, where the speaker expects the hearer to agree with him (i.e., the speaker) or his recognition of Mary's cleverness. When referring tone with mid key or termination is used in the tone unit, the utterance will invite concurrence ('She is, indeed'). With low key or termination, it implies finality, and it tends to end the exchange.

Methodology
Data Collection
Data collection was carried out on the 1st of December 2018 by using qualitative methodology. Authentic and spoken data of political news interviews were employed. Data were collected via online YouTube videos. The data included a political news interview with Barack Obama, who was interviewed by the interviewer Charles Rose on CBS News channel. The interview took place on the 16th of June 2013 and lasted for approximately 47 minutes. The interview covered topics on the Islamic State of Iraq (ISIS), Syria, China, the National Security Agency (NSA) leaks, and Foreign Intelligence Surveillance Act (FISA) Court. To ensure the validity and objectivity of the selection of the speech excerpts from Obama's speech, the researcher requested four independent raters to assess the suitability of the selected speech excerpts and to determine whether they meet the four criteria that are chosen for the study. The four raters have doctoral degrees in the areas of linguistics, particularly pragmatics and phonology, and they have extensive teaching and research experience. The researcher prepared a table that lists the entire 46 tone units in Obama's speech against the four criteria to identify which excerpt contains and meet all four criteria. A summary of the criteria and the ten excerpts are presented in Tables 3. These were separately submitted to the four selected evaluators, who confirmed that all the listed criteria are present in the selected speech excerpts.

Criteria for Data Selection
The selected data in this study is issue-driven. The table 3 shows the criteria for data selection.
Table 3. *Criteria for data selection*

No.	Criterion
1.	The data contain challenging issues: government policies, administration, and political party's support. In fact, the challenging issues might include conflict and war, which might put the politicians in a position of being responsible toward each question that he responds.
2.	The selected excerpts show Obama's reactions towards interviewer's questions which reflect the types of information tones with their meanings as well as their functions, particularly the role dominance/non-dominance in his conversation with the interviewer.
3.	The selected excerpts contain variations in pitch movement, i.e., high, mid, low level to determine the prominent syllable of the key and termination by which we can determine the type of information in the discourse.
4.	The selected excerpts contain different kinds of utterances. They contain short (single word or short clauses) and long utterances to obtain variations in the results.

Data Analysis

The researcher employed a mixed-method approach to analyze the ten collected excerpts of Obama's speech. This study is mainly is qualitative because it focuses on analyzing Obama's speech in terms of Brazil's discourse intonation model, including the type and the function of information (proclaiming, referring, level) concerning the termination. Besides, it shows the role of the speaker, whether he is dominant or non-dominant in an interview. Although this study is qualitative, the researcher finds it useful and helpful to add simple quantitative data to show the frequencies of the most important components of Brazil's model used in this study. It is very essential for a better understanding of the whole interview to validate the qualitative discussion and support the findings of this study. The selected excerpt is analyzed as follows:

1) The tone units of each selected excerpt are analyzed acoustically using the praat software computer program (version 5.3.59). It is one of the widely known speech analysis software developed by Boersma and Weenink (2004) from the Institute of Phonetic Sciences of the University of Amsterdam, and it can be downloaded free at http://www.praat.org (Boersma, 2014). The primary function of using the praat program is to show the pitch values of the prominent syllables of the key and termination and to identify the pauses of the tone units in each excerpt of Obama's speech. Tone height can be defined as the pitch height of the vowel in a prominent syllable (measured in Hz) (Ladefoged & Johnson, 2014; Roach, 2010). In addition, the praat program is used automatically to align the transcriptions and create praat text grids with separate word and phoneme tiers. However, the researcher check the prominent stressed syllable in words in the tone units with the assistance of two raters, who are lecturers and specialists with more than 20 years' experience in phonetics and phonology. 10% of the data were selected to establish confidence in rater reliability and the percent of agreement obtained between the two judges was 82% of the items (Macky & Gass, 2005). The researcher joined the Praat group to receive feedback as she can provide answers to questions concerning this study (http://uk.**groups**.yahoo .com/ **group** / **praat**-users/).

2) This study focuses on identifying the termination rather than the key since the termination has an essential role in defining the whole nature of the tone used in the tone unit by which the type and the function of the used tone as well as the role of the speaker are determined in the discourse. Besides, the termination is explicitly concerned with the speaker's expectation concerning the key of the hearer's response, i.e., it shows the relationship between the speaker and the hearer in regard with the key (Burgess, 2012). It is important to note that termination is considered as the most important component in TU since it represents the tonic syllable, and it is the only obligatory component in TU (Roach, 2010). Moreover, the key was commonly investigated in several studies on daily conversations as they include reactions to the short questions with short answers or straight question with a straight answer, rather than an interview, as it is the case in this study, which gives the interviewee freedom to choose any key in the response (Brazil, 1997) In this regard, Norrick (2001) writes:

> Brazil has argued that the three different onset levels or keys have a distinctive function in discourse. Yet this statement is based more on introspection and carefully chosen (often-constructed) examples than on the analysis of large quantities of naturally occurring data. (p.126)

It is important to mention that the pitch value of the key since the pitch level of the termination is identified in comparison with the pitch level of the key within the tone unit. Below is an example of the selected excerpt in Obama's speech:

Barak Obama: "No, I think that my general view is we are open to discussion both through the P5 plus one and through potential bilateral channels, and we recognize that you're not going to solve problems all upfront as a precondition for talks". Figure 1 shows the six tone unit boundaries in the selected excerpt of Obama's speech.
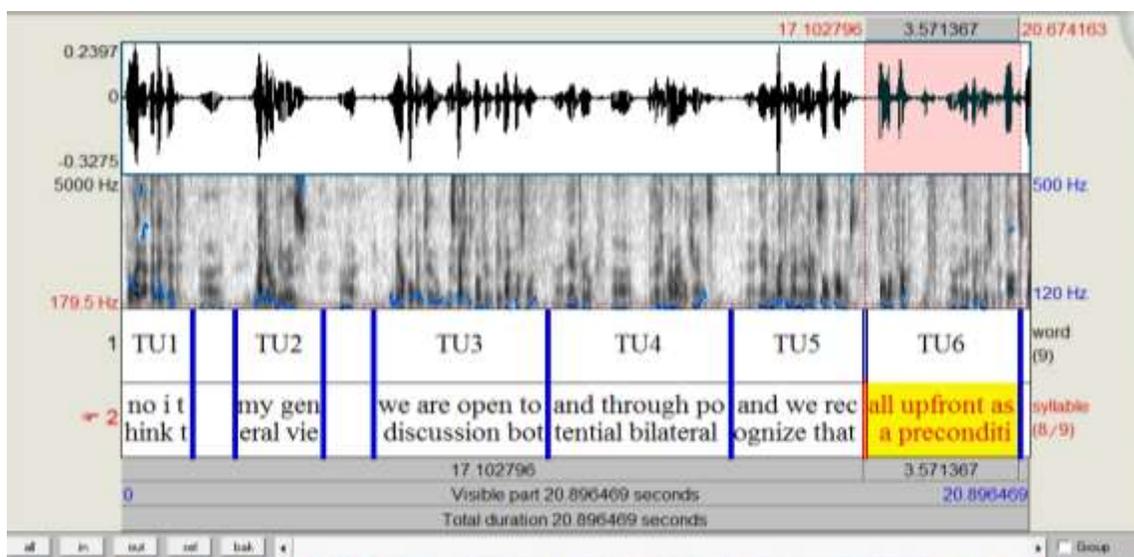

Figure 1 The selected sample of praat analysis of the tone unit boundaries in Obama's speech

Accordingly, the table 4 of analysis of excerpt of Obama's speech shows the six tone units of Obama's speech, which are analyzed in terms of Brazil's model discourse intonation.

Table 4. *Analysis of six tone units in the selected excerpt from Obama's speech*

Tone Unit	DI Analysis	Key (Onset) & its Pitch Value	Termination (Tonic Syllable) & its Pitch Value	Pitch Level of Termination	Function & Type of Tone	Meaning	Role of the Speaker
TU1	// ◥ NO ↑ I think that //	No (172.69) Hz	I (138.97) Hz	high termination	P (fall)	shared information	Non-dominant
TU2	// ↗ MY general view ↑ IS //	My (115.06) Hz	Is (494.19) Hz	high termination	r^+ (rise)	Unshared information	dominant

TU3	// ↗ ↘ we are open to discussion both through the FIVE plus ↑ONE//	Five (166.74) Hz	One (109.95) Hz	low termination	P+ (rise-fall)	shared information	dominant
TU4	// ↗ ↘ AND through potential bilateral ↑ CHANNels//	And (109.42) Hz	Channels (133.58) Hz	high termination	P+ (rise-fall)	shared information	Non-dominant
TU5	// ↘ ↗ and we RECognize that you're not going to solve ↑ PRoblems//	Recognize (106.43) Hz	Problems (97.44) Hz	low termination	r (fall-rise)	Unshared information	Non-dominant
TU6	// ↗ all up FRONT as a precondition for ↑ TALKS //	Upfront (120.05) Hz	Talks (327.19) Hz	high termination	r+ (rise)	Unshared information	dominant

As shown in the table, the six tone units of the excerpt start with 'NO' in TU1 and end with 'TALKS' in TU6. As mentioned previously, PRAAT program is used to indicate the pitch values of the most two prominent stressed syllables, which are selected to be the key (onset) and termination (tonic syllable) in each tone unit. All the tone units have a high termination (high level) except for tone units (3 and 5), where there is a low termination (low level). The high termination belongs to that prominent syllable in termination words (I, is, channels, talks) has a higher pitch value than the prominent syllable in keywords (no, my, and, upfront), while the low termination belongs to that prominent syllable in termination words (one, problems) has a lower pitch value than the prominent syllable in keywords (five, recognize).

In this discourse, Rose asked Obama if there is someone from his administration or others that suggested to stop Iran from pursuing a military nuclear program. As a result, in TU1, Obama's negative response (no) shows that this information is new, which is not known by the interviewer because he did not agree with the interviewer. Then, Obama used a referring plus high tone in TU2 to emphasize his view about the military nuclear program of Iran. A proclaiming tone is used in both TU3 and TU4 as Obama used a rise-fall tone to offer new information that there will be negotiations that should be done through the p5 plus one (the members of The United States Security Council plus Germany) and bilateral talks. The rising tone is used by Obama to emphasize that all these problems cannot be solved. It depends on bilateral talks between the United States and Iran. The United States and Iran are conducting prior bilateral negotiations through official or semiofficial emissaries — a departure from the previous procedure of multilateral talks. Therefore, Obama has used a referring plus tone with a very high tone in TU6 to take this matter seriously because Iran has expanded its military weapon program. The use of high termination in most of

the tone units suggests that Obama is trying to control the situation, particularly as he started with a prominent 'no' to show a contrast to interviewer's idea.

Therefore, Obama took a dominant role in the discourse to provide valuable information, particularly about the negotiations with Iran, which should be done through P5 plus one and all these are dependent on the talks between the United States and Iran. Besides, the high termination in the discourse that is used by Obama reflects that he wants to emphasize and to capture the attention of the interviewer as most information did not agree with the interviewer's expectation. Figure 2 shows two of the tone units in the excerpt, which are analyzed in terms of Brazil's discourse intonation model, where (K) refers to the key and (T) refers to the termination.

The praat analysis of two selected tone units is shown in Figure 2. The curvy blue line indicates the measurements of the pitch height in Hz (hertz) of the two prominent syllables in the words (no, I) and (my, is) in TU1 "no, I think that" and TU2 "my general view is" respectively. There are two tiers in which the first one indicates the phonetic transcription of the words to show the stressed syllable in words in each tone unit, while the second tier shows the words of each tone unit.
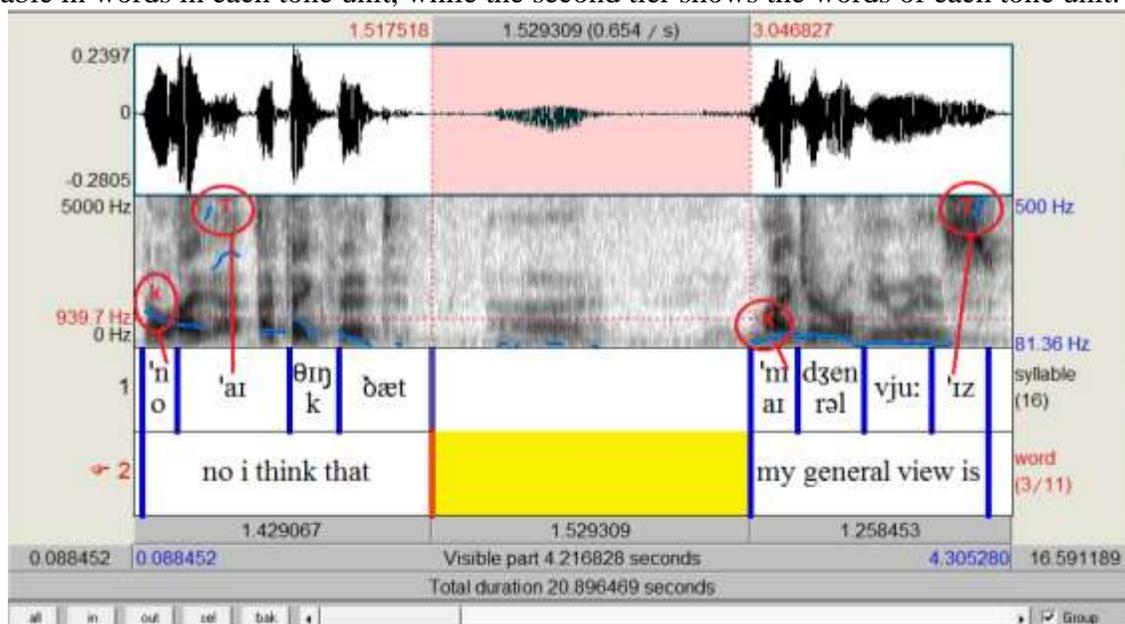

Figure 2 Praat analysis of TU1 & TU2, where (K) refers to the key and (T) refers to the termination

Results and Discussion

Table 5 shows the percentages and frequencies of the information tone types (proclaiming, referring, and level) concerning the termination component. Based on Table 5, all the information tone types (proclaiming, referring, and level) are used in Obama's speech. Regarding the proclaiming information, the results showed that the high termination is higher than the mid and low termination since the percentage in the former is (27.74%), while in the latter it is (8.88%, 12.63%), respectively. The high termination with a proclaiming tone reflects many meanings such as adding new and vital information, non-finality, informing the interviewer with surprised and unexpected results, i.e., offering contradictory information, and continuation. One important point

that should be mentioned here is that the main purpose of using high termination is to emphasize information when talking with the interviewer. The table 5 shows the meanings of the proclaiming tone that are used in Obama's speech.

Table 5. *Percentages and frequencies of information tone types concerning the termination component*

No. of Excerpts	No. of Tone Units	Types of Information Tone %								
		Proclaiming			Referring			Level		
		Termination								
		High	Mid	Low	High	Mid	Low	High	Mid	Low
Exc.1	7	14.28			57.14					28.57
Exc.2	6	33.33		16.66	33.33		16.66			
Exc.3	1					100				
Exc.4	3		66.66							
Exc.5	16	18.75		37.5	37.5		6.25			
Exc.6	1				100					
Exc.7	1	100								
Exc.8	1				100					
Exc.9	9	11.11	22.22	11.11	44.44	11.11				
Exc.10	1	100								
Total	46	27.74	8.88	12.63	37.24	11.11	2.29	0	0	2.85

As for the referring information, the incidence of high termination is higher than the mid and low termination since the percentage in the former is (37.24%), while in the latter it is (11.11%, 2.29%), respectively. The high termination with a referring tone reflects many meanings like continuation in Obama's speech in order to show the significant information in the next utterance, to sincerely express responsibility to solve the problems, to remind the interviewer with previous mistakes, i.e., to react for something, which is part of a common ground, to capture the attention of the interviewer for a necessary information, and sometimes to switch to another aspect of the same topic.

In brief, on one hand, the major meanings of the proclaiming tone that are used in Obama's speech are non-finality (to add more, emphasis, contradiction, insistence), continuation (insistence), refrain to do something, contradiction/implication. On the other hand, the major meanings of the proclaiming tone that are used in Obama's speech are to capture attention to an important information (add new information/ reacts information in new aspect/continuity), remind something/contradiction, indication to the public information/offer undesirable and unexpected information, Contradiction/insist/offer important information. In addition, the level tone includes only the low level in Obama's speech, which is (28.57%). The major meaning of level tone is used

for Formulaic routine. The table 6 shows the percentages and frequencies of the proclaiming and referring tones concerning dominance and non-dominance components.

Table 6. *Percentages and frequencies of the proclaiming and referring tones concerning dominance and non-dominance components*

No. of	No. of Tone Unit	Dominance%						Non-dominance					
		Proclaiming Tone (rise-fall)			Referring Tone (rise)			Proclaiming Tone (fall)			Referring Tone (fall-rise)		
		Termination						Termination					
		High	Mid	Low	High	Mid	Low	High	Mid	Low	High	Mid	Low
Exc.1	7	14.28			28.57						28.57		
Exc.2	6	16.66		16.66	33.33			16.66					16.66
Exc.3	1								100				
Exc.4	3	33.33						33.33	33.33				
Exc.5	16	12.5		6.25	37.5		6.25	6.25		31.25			
Exc.6	1										100		
Exc.7	1	100											
Exc.8	1				100								
Exc.9	9				44.44	11.11		11.11		11.11			
Exc.10	1	100											
Total	46	27.67	0	2.29	24.38	1.11	0.62	6.73	13.33	4.23	12.85	0	1.66

Regarding the dominance factor, the results showed that the high termination in both the proclaiming and referring tone (rise-fall & rise) are higher than the mid and low termination since the percentage in the former is (27.67%, 24.38%), respectively, and in the latter, it is (0%, 2.29%, 1.11%, 0.62%), respectively. Regarding the non-dominance factor, the results showed that the mid termination in proclaiming tone (fall) is higher than the high and low termination since the percentage in the former is (13.33%), and in the latter, it is (6.73%, 4.23%), respectively. However, the incidence of high termination in the referring tone (rise-fall) is higher than the mid and low termination since the percentage in the former is (12.85%), while in the latter, it is (0%, 1.66%), respectively. Generally, the results showed that dominance is higher than non-dominance since the percentage in the former is (9.34%) and in the latter, it is (6.46%). The high termination with dominance factor reflects that Obama took his status as the controller of the discourse through talking with the interviewer and most of his speech carries contrastive information, which was contrary to interview's expectation. The example below shows how Obama tries to convince the interviewer about his opinion by imposing unreal and frightening events, which may not occur in the future.

//r well i THINK it says ↑THAT // // r+ the Iranian PEOple want to move in a different ↑diRECtion//// o→ AND // //r you know if you CONtrast this ↑WITH// // o the VIOlence and ↑supPRESSion that happened// // p+ IN the last presidential election, ↑OBviously // // r+ you have a much more positive ATMOsphere ↑THIS time//

In this excerpt, the interviewer asked Obama's opinion towards the Iranian elections as 75% of them are voting. In Obama's response, a referring tone is used as he starts from fall to rise in his speech to attract the attention of the interviewer to an important event to highlight significant information in the next utterance in (TU2). A high termination with rising tone is used by Obama to reflect that he does not agree with the interviewer's opinion, which considers this huge number of Iranian people, who participated in the election as a negative indication against the United States. Obama uses high termination to show that he is sure that Iranian people want to change the rigid and traditional framework that they used to have for a long period. They want to step in another direction, and this direction gives the United States a different relationship with Iran. Obama takes a dominant role in the discourse in all the tone units except for TU1 and TU4, where he takes the non-dominant role in the discourse. Furthermore, low termination is used as follows:

1) Either by adding some reasons to justify the same topic, information, or asking the interviewer to compare two experiences as a strategy to convince the interviewer as shown in the following example:
//p now on the OTHER side there are ↑FOLKS who say// (Obama adds another reason to the same information about the withdrawal of the American forces from Iraq)
//p then WHAT ↓ENDS up happening is //
// o↓ AND // //r you know If you CONtrast this ↑WITH//
(Obama justifies his information about Iranian elections by adding another reason to the same previous topic or information in which he asks the interviewer to compare between the previous election and the current election).
2) In interrogative question to reduce the constraints on the hearer to give answer freely such as: //↓RIGHT? //
Mid-termination is used as follows:
1) Enumeration as Obama begins to count the reasons for turning down some requests by FISA Court as shown in the following example:
 // p FIRST→ OF all   //
//p NUMBer→ ONE
2) Adding new and important information by Obama to attract the interviewer's attention:
//r+ with a QUERy unless they've →GOT//
(Obama informs the interviewer about important information related the work of FSA Court and NSA program)

Conclusion
Based on the previous discussion, the following major findings were concluded:
1) The findings substantiated the important role of Brazil's model of discourse intonation in investigating the information tones pragmatically in Obama's speech concerning the termination and dominance/non-dominance factor.

2) The results showed that all the information tones types are used in Obama's speech, including proclaiming, referring, and level tones. However, the most common level, which was used by Obama in his speech is the high termination to emphasize the provided information and capture the attention of the interviewer. On the one hand, the high termination with a proclaiming tone reflects many meanings like adding new and important information, non-finality, informing the interviewer with surprised and unexpected results, i.e., offering contradictory information, and continuation. On the other hand, the high termination with a referring tone reflects many meanings like the continuation in Obama's speech to show significant information in the next utterance, to seriously express responsibility to solve the problems, to remind the interviewer with previous mistake, i.e., to react to something, which is part of a common ground, to capture the attention of the interviewer to important information and sometimes to switch to another aspect of the same topic.

3) Generally, it was found that the dominance factor is higher than non-dominance, which reflects that Obama was the controller of the discourse through talking with the interviewer and most of his speech carried contrastive information, which was contrary to interview's expectation. Besides, taking the leading role is part of his character since he is a president. This control of discourse was observed in his speech by imposing his information sometimes on the interviewer when he talked about events, which may not occur.

Implications of the Study

The results of this study are of practical benefit for teachers of phonology and those who are interested in acoustic phonetics. They can get benefit from the acoustic analysis of the selected excerpts from Obama's speech using the praat program, which is beneficial for analyzing any phonetic or suprasegmental features such as stress, pauses, rhythm, etc. Theoretically, this study shows the pragmatic function of intonation in political televised discourse and, therefore, it is valuable for those, who are specialized in pragmatic and phonology to get benefit from the interpretation of the political discourse by applying Brazil's model of discourse intonation, particularly the connection between the phonology and pragmatics.

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