Arts and Social Sciences Journal
ISSN: 2151-6200

El-Falaky, Arts Social Sci J 2015, 6:4
DOI: 10.4172/2151-6200.1000123

Research Article Open Access

Vote for Me! A Corpus Linguistic Analysis of American Presidential Debates using Functional Grammar

El-Falaky MS*

College of Language and Communication, Arab Academy for Science and Technology and Maritime Transport, Cairo, Egypt

Abstract

The study carries out a corpus linguistic analysis of a number of American presidential debates. The selected data is analyzed using tools of functional grammar by means of computerized software. Results are, then, interpreted for the purpose of deciding how presidential candidates use language to win the presidency from their opponents. Such accomplishment is conditioned by how much they succeed in persuading their audience that, as presidents, they are capable of handling the audience issues and meeting their demands. The study reaches a conclusion that the corpus linguistic tools are essential in identifying the implications of selecting the lexico-grammatical tools that are in turn crucial in enabling speakers to perform a number of functions such as constructing social relations, exercising power or maintaining solidarity with the listeners.

Keywords: Corpus; Functional grammar; Debates; Discourse; Power relations

Introduction

As a result of the breakthrough of television and radio at the beginning of the twentieth century, people have become more involved in political actions. Such political actions are represented in voting for a certain presidential candidate rather than the other. The success of handling political discourse encourages voters to make their choices either siding for one or refusing another. All aspects of language are supposed to be studied when it comes to analyzing a given text, for instance, pragmatics, semantics, syntax, and phonology and phonetics. Language is not the main goal. It gains its importance from the surrounding conditions and circumstances. Wodak [1] argues, "Language is not powerful on its own. It gains power by the use powerful people make of it".

It cannot be denied that modern technology has invaded all aspects of life. As a result, reliance on computerized programs has become inevitable especially in the study of huge amounts of texts. As an integral part of this study, corpus linguistics has played a vital role in generating results which go, then, into a process of functional linguistic interpretation.

The corpus: American presidential debates

American presidential debates are held before the elections every four years. After they are nominated by their parties, presidential candidates meet in a hall to preview their futuristic plans if they are elected. Presidential debates are run by one or more moderator posing questions to the candidates who are given a specific time to answer the posed question. Debates usually revolve around some of the most controversial issues.

Debates get the candidates in face-to-face encounters so as to make comparison between their experience, integrity, judgments, education, service, age differences, and other characteristics. Historically, the first televised presidential debate took place in 1960 drawing over 66 million viewers. By the advent of the satellite technologies, presidential debates become one of the most-watched broadcasts to almost all viewers.

To support its intent, this research capitalizes on a corpus of the American presidential debates. Table 1 shows the number of analyzed presidential debates as displayed by 'Commission on Presidential Debates'.

Rationale of the study

The reason why presidential debates represent the main corpus of the study is ascribed to great influential role on a large scale of audience. American presidential debates are, in particular, chosen for this study as they are the most widely viewed debates worldwide. American presidents interfere in the issues of the countries all over the whole world. How the American presidential candidates see themselves

Election	Number of presidential debates
1960	Four debates between Vice President Richard Nixon and Senator John F Kennedy
1976	Three debates between President Gerald Ford and former Georgia Governor Jimmy Carter
1980	Three debates between President Jimmy Carter, former California Governor Ronald Reagan and Illinois Congressman John B Anderson.
1984	Three debates between President Ronald Reagan, Vice President George HW Bush and former Vice President Walter Mondale
1988	Two debates between Vice President George W Bush and Massachusetts Governor Michael Dukakis
1992	Three debates among President George HW Bush, Arkansas Governor Bill Clinton and independent candidate Ross Perot.
1996	Two debates between President Bill Clinton and former Kansas Senator Bob Dole
2000	Three debates between Vice President Al Gore and Texas Governor George W Bush
2004	Three debates between President George W Bush and Massachusetts Senator John Kerry
2008	Three debates between Senator Barrack Obama and Senator John McCain

Table 1: Presidential Debates.

***Corresponding author:** El-Falaky MS, College of Language and Communication, Arab Academy for Science and Technology and Maritime Transport, Cairo, Egypt, Tel: 203 5565429; E-mail: maismf@hotmail.com

Received August 17, 2015; **Accepted** September 04, 2015; **Published** September 10, 2015

Citation: El-Falaky MS (2015) Vote for Me! A Corpus Linguistic Analysis of American Presidential Debates using Functional Grammar. Arts Social Sci J 6: 123. doi:10.4172/2151-6200.1000123

and see America is what makes these debates worth of study. Thus, the study analyzes American presidential debates since 1960 as this is the time when the first televised presidential debate was held.

The study adopts three major approaches, namely, Critical Discourse Analysis, Systemic Functional Grammar, and Corpus Linguistics, as the three of them are essential to the study of "authentic texts" [2]. The reason why these three approaches are chosen for the analysis of the presidential debates is ascribed to their suitability in carrying out quantitative descriptions of the lexico-grammatical structures of language (by using SFG and CL). CDA, then, plays its role in interpreting those results describing why texts are the way they are based on social, economic and political interpretations.

Research Questions

Using Corpus Linguistics, Critical Discourse and Systemic Functional Grammar analyses proceed answering the following questions:

a. How are power relations constructed between the two candidates and between the candidate and his audience?

b. How does a candidate exercise power and express his ideology to his counterpart and to the audience to win their votes?

c. What is the importance of Corpus Linguistics as a quantitave approach?

d. Why is Corpus Linguistics an important approach for Discourse Analysis?

e. How does Corpus Linguistics integrate with SFG and CDA?

Corpus Linguistics

The term 'corpus' as defined by Enery and Wilson [3] "is simply the Latin for 'body', hence a corpus may be defined as any body of text." Similarly, Kennedy [4] states, "In the language sciences a corpus is a body in written text or transcribed speech which can serve as a basis for linguistic analysis and description".

'Corpus Linguistics', or CL for short, has become accepted as an important and useful approach for the study of language and any field in linguistics [3]. Baker [5] claims that CL is a relatively recent branch of linguistics that has come into being since the advent of personal computers in the 1990s. The notion of 'corpus', or corpora for plural, can be defined as a machine-readable collection of (spoken or written) texts that were produced in a natural communicative setting, and the collection of texts is compiled with the intention (1) to be representative and balanced with respect to a particular linguistic variety or register or genre and (2) to be analyzed linguistically [6].

Generally, Corpus linguists require tools in order to conduct corpus analysis. Thus, the essence of corpus linguistics is that a corpus must be used in conjunction with computer software that can quickly and accurately perform manipulations on its contents [5].

It is worth noting that these corpora, when fed into a computer system, are modified or featured by some external features other than its original contents. Thus, a distinction between 'raw corpora' and 'annotated corpora' needs to be identified. Gries [6] describes 'raw corpora' as consisting of files only containing the corpus material while annotated corpora is described as containing additional information.

Another issue that has to be mentioned is the distinction, made by Tognini-Bonelli [7], between the two broad types of CL, i.e., corpus-based and corpus-driven investigation. [Corpus-based analysis] uses a corpus as a source of examples to check researcher intuition or to examine the frequency and/or plausibility of the language contained within a smaller data set.... A corpus-driven analysis is a more inductive process: the corpus itself is the data and the patterns in it are noted as a way of expressing regularities (and exceptions) in language [8].

Why would corpus linguistics be helpful to CDA and SFG?

It becomes a well-known fact that the capabilities of CL are not inherent in the computer's architecture or its capabilities. Rather, linguists have a role in shaping this technology in ways best suited to their needs. That is, CL can automate many of the processes in a certain discipline either through the use of wordlists, concordances or key word searches. Then, a linguist role emerges to manipulate the findings to answer broader research questions. O'Keeffe and McCarthy [9] assert, 'The process is not one-way, CL on its own is not the basis for the analysis of discourse. It can provide the means for analysis but researchers invariably draw on theories and applications".

CL can largely be useful, especially when accompanied by the two approaches of CDA and SFG. This can be ascribed to the fact that CL, CDA and SFG have a number of common features when it comes to linguistic analysis. That is, they all entail the collection and analysis of naturally occurring language data. Moreover, CDA, SFG, along with CL, make use of quantitative methodologies attempting to provide explanations for the findings that their research produces. Thus, the corpus linguistic approach can provide linguists with large amounts of existing data along with computational tools and procedures that can identify quickly and accurately the features researched.

On one hand, CL is beneficial for the study of grammar as it increases researchers' ability to systematically analyze a large collection of texts. It is Corpus linguistic techniques, as claimed by Conrad [10] that allow linguists to determine common and uncommon grammatical patterns in particular contexts.

These 'patterns' show the correspondence between the use of a grammatical feature and some other factor in the discourse or situational context (e.g. another grammatical feature, a social relationship, the mode of communication, etc.) [10].

On the other hand, discourse analysis has gained a lot by using computational means in the analysis of texts. Thornbury [11] claims that as language description has revolutionized because of CL, "so too has the study of discourse hugely benefited from the kinds of quantitative data that corpora yield". Thornbury argues that the findings of a computerized analysis can be manipulated, from a discourse perspective, to conclude both micro-features and macro-features. O'Halloran [12] specifies, using corpus investigation, critical discourse analysts can now gain insight into the kinds of cultural and ideological meanings being circulated regularly, as well as being potentially reproduced by readers.

That is, CL tools can be helpful in assigning the relationship between language, power and ideology as CL quantitative analysis is accompanied by CDA qualitative analysis [13].

As for the political discourse, CL proves efficiency. Research demonstrates that automatic analysis is beneficial to the study of political discourse. This can be exemplified in the search tools that can be used to automatically locate all instances of a particular word form, or tag in the case of an annotated corpus [9]. Supporting this point, Prentice [14] reviews some CL studies that utilize both approaches.

Recent studies combining these approaches [CDA, and SFG] tend to utilize the corpus techniques of collocation profiling and concordance analysis and have focused on issues such as (a) the representation of social groups. (b) the representation of social actions and (c) the representation of social relationships. Other analyses have looked at issues of institutional self-presentation [14].

The sections illustrate the integration of corpus linguistics with other linguistic theories, mainly, functional grammar and CDA.

What is SFG, and why?

Systemic Functional Linguistics (SFL) is a social theory studying language rules and conventions within it social context. SFL is a semiotic theory in the sense that it is concerned with the study of system of signs and how these signs create meanings in both social and cultural contexts. Thus, SFL is a theory that describes language functions that enable users to achieve their goals through language use.

According to Halliday [15], SFG is called systemic because it enables individuals to choose from the available choices to produce linguistic utterances and texts. Halliday states that the system is what integrates the notion of choice in language, and the system network is the grammar, which offers a variety of options that, once chosen, involves other particular structures and lexical choices. Steiner [16] defines the system network as yielding to actual selectional expressions.

In SFG, each linguistic unit is classified in terms of a set of features. Combination of these features specifies the formal properties of units in terms of morpho-syntactic properties, linear precedence, relationships between its constituent and their parts. The features which are possible for a given unit are represented in the form of system network.

For Halliday, a 'system' is a set of options with an entry condition, that is to say, "a set of things which one must be chosen, together with a statement of the conditions under which the choice is made" [17]. In SFG, Halliday argues that any language can be represented as a very large network of systems. Kress considers this network as open ended where each entry offers a set of two or more options which make up the choice. It is worth noting that each of the semantic components in language can be "internally organized into networks, i.e. directed graphs…where the nodes represent features and the branches are interpreted as 'if-then', 'and', 'or'" [16].

Thus, the first step in carrying out a discourse analysis is "to extrapolate from the data qualitatively meaningful systems networks as bases for quantifying the data" [18].

Halliday and Hasan [19] point out the fact that any language is multifunctional: experiential, interpersonal, and textual. These functions, as proposed by Halliday, are all "interwoven in the fabric of the discourse". Any description of the language cannot be just based on one functional level rather than the other. "The practical implication of this recognition of semantic complexity is that we have to describe the structure of the clause three times over!" [20].

Thus, in order to understand a sentence we have to examine metafunctional aspects of language simultaneously. SFG would thus be, as Martin and Rose [21] claim, a toolkit for discourse analysis enabling individuals to enact their relationships, represent their experience and to organize discourse as meaningful text.

SFG and the interpersonal metafunction

The interpersonal metafunction is one of the main purposes of communication. Discourse participants aims at interacting with each other so as to establish and maintain appropriate social links. This is related to the fact of exchanging meanings. It is a two-way communication process, i.e., what we say, we say for a purpose.

According to SFG, the most fundamental purposes in any exchange are giving (and taking) or demanding (and being given) a commodity of some kind. This commodity can be information or goods and services. So, we end up with basic speech roles: giving information, demanding information, giving goods and services and demanding goods and services. The usual labels for these functions are statements, questions, and commands.

These basic functions are closely associated with particular structures: statements are mostly naturally expressed by declaratives, questions by interrogatives and commands by imperative clauses. The following sections show how the Mood system is composed of two parts, namely 'mood' and 'residue'.

The 'mood' consists of two parts: (a) subject, which is a nominal group, and (b) the finite operator, which is part of a verbal group. Together the subject and finite make up the Mood.

The 'Subject' is the doer of the action. It may be carried out by any nominal group as personal pronoun, noun clause, etc. The 'Finite' is one of a small number of verbal operators expressing tense (be, have, and do plus 'be' as the marker of passive voice) and modality as (can, may, could, etc.).

The type of Mood can be indicated by the order in which the subject and Finite are represented. Halliday [15] proposes a number of cases by which we can assign the type of Mood.

As mentioned above, Mood is seen as a combination of Subject and Finite forming one constituent. It is the remainder of the clause that Halliday has called 'Residue'. According to Halliday [15] there are three kinds of functional elements in the Residue: 'Predicator', 'Complement', and 'Adjunct'. There can be only one predicator, one or two complements and an indefinite number of adjuncts up to about seven.

The predicator is realized by a verbal group minus the finite in the mood element. The predicator itself is thus nonfinite, and there are non finite clauses containing a predicator but no Finite element.

A complement is an element within the Residue that has the potential of being Subject but is not. It is typically realized by a nominal group. By this definition, it resembles the definition of the object in traditional terms. There is one exception of this general principle: that is, the attributive complement after verb 'to be' as in Obama's clause "It is not true", where 'true' is a complement.

It is typically realized by an adverbial group or a prepositional phrase. The typical order of elements in the Residue is: Predicator^Complement^Adjunct(s). However, an adjunct or a Complement may occur thematically; this does not mean that it is a part of the Mood.

Modal Adjuncts are classified into two types: (1) mood adjuncts: they are so called because they are closely associated with the meanings constructed in the mood system: those of polarity (yes, no, not), modality (probably, possibly, perhaps), temporality (still, already, just) and mood (clearly, almost, nearly); (2) comment adjunct: they express the speaker's attitude towards the proposition as a whole. They have a very significant function in the clause separated from the rest of the clause by commas, such as 'Fortunately' in Carter's statement.

"Fortunately, we've had a Republican president to check their excesses with my vetoes".

As realized by circumstantial Adjunct, circumstances "encode the background against which the process takes place" [22]. Circumstances perform a set of functions in the clause as the representation of time, place, cause and manner, etc. Table 2 illustrates the English circumstances and their meanings.

Modality: Any Finite expresses not only tense but also polarity and modality. Any Finite is inherently positive or negative. Negative forms have identifiable elements (n't or not). However, there are intermediate degrees between 'yes' and 'no' like 'sometimes', 'maybe' etc. These intermediate degrees between positive and negative poles, are known as 'Modality'.

To describe modality, we have to differentiate between propositions as information '(i.e., statements and questions) and proposals as (goods-and-services, i.e. offers and commands). Various definitions for modality have been proposed. Narrog [23] suggests that modality can be defined in terms of 'factuality'. He states, Modality is a linguistic category referring to the factual status of a state of affairs. The expression of a state of affairs is modalized if it is marked for being undetermined with respect to its factual status, i.e., is neither positively nor negatively factual.

To explain how this definition works, Narrog provides the following example,

(1) Ancient DNA may be misleading.

According to Narrog, this proposition is presented in a way that suggests that it could or could not be factual.

Modalization and modulation: In exchanging propositions, i.e. information, there are two kinds of intermediate possibilities other than positive and negative. There is a degree of possibilities. It can be classified into (i) degree of probability, such as 'possibly', 'probably', certainly; (ii) degree of usuality, such as 'sometimes', 'usually', 'always'. These scales are known as 'Modalization'.

In proposals, on the other hand, there are also two scales depending on the speech function whether commands or offers. (i) In command, the intermediate points represent degrees of obligation such as 'allowed to', 'supposed to' or ''required to'. (ii) In an offer, they represent degrees of inclination such as 'willing to', 'anxious to' or 'determined to'. These two scales are called 'Modulation'.

Both 'obligation' and 'inclination' can be expressed in either of two ways, by a finite modal operator, e.g. 'You should do that', or by an expansion of the predicator by passive as in the example of Thompson [22] 'You are supposed to know that' or by an adjective as 'I am anxious to help you'.

Circumstances	Meaning	Probed by
Extent	Distance, duration	'When?'
Location	Place, time	'Where?'
Manner	Means, quality, comparison	'How?'
Cause	Reason, purpose, behalf	'Why?'
Contingency	Condition, concession, default	'Under what conditions?'
Accompaniment	Comitation, addition	'Who with?'
Role	Guise, product	'What as?'
Matter		'What about?'
Angle		'Says who?'

Table 2: Circumstances - Adopted from Halliday.

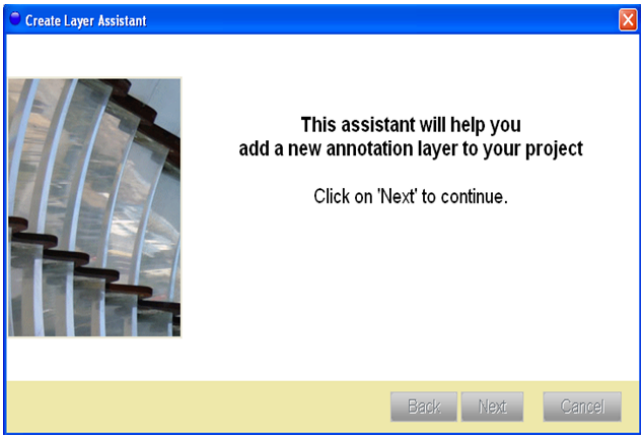

Figure 1: Layer Creation Window.

Methodology

Created by Mike O'Donnel [24], UAM Corpus Tool is the software used for analysis in this study. UAM Corpus Tool comprises a set of tools for the linguistic annotation of texts. The software can be used for semi-automatic or manual annotation of both texts and images. UAM Corpus Tool excels in the field of computational linguistics as it offers a number of options. The software can provide both general statistics for the corpus as a whole or for every individual feature in the corpus as assigned by the user. This proceeds by following a number of steps.

For carrying out a corpus linguistic analysis using the software at hand, there are a number of processes that have to be followed. The following sections summarize the main steps that have to be performed for the software to process any given corpus.

As a start, the corpus has to be saved in a 'raw' text file with the extension '.txt'. The corpus, then, has to be edited for grammatical, spelling and punctuation mistakes. Such editing is essential as the corpus cannot be modified once it has been fed into the software.

Layer creation

After installing the program, the required analysis 'layers', or 'system networks', have to be created. Layer creation is guided by helping tools as seen in the following Figure 1.

These layers comprise the rules according to which the corpus is processed. For the purpose of this study, six layers are created, two of which are built-in and four are manually created layers.

STNFDParse layer

This is a built-in layer embedded in the software including the parsing rules of the English language (e.g. grammar, punctuation, etc.). Within this layer, there is an embedded word class network for tagging all the parts of speech (POS tagging) of the English language.

Automatic SFG layer

This layer is the most important built-in layer in the program. It includes a large number of SFG rules such as process types, mood, modality, passivization, etc. (Figure 2).

Automatic grammar analysis is available for English only including all the English rules of grammar represented in a system network.

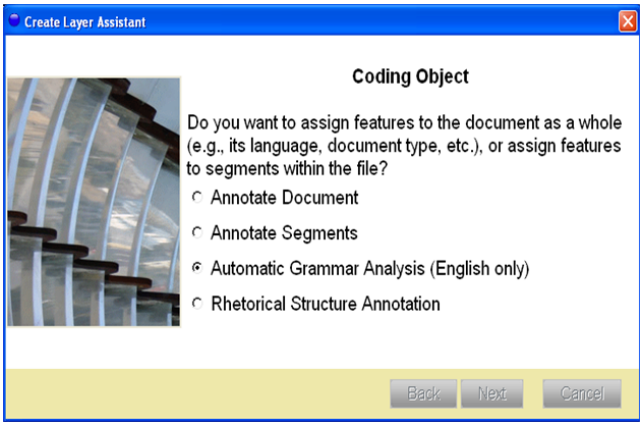

Figure 2: Annotating Units in the Corpus.

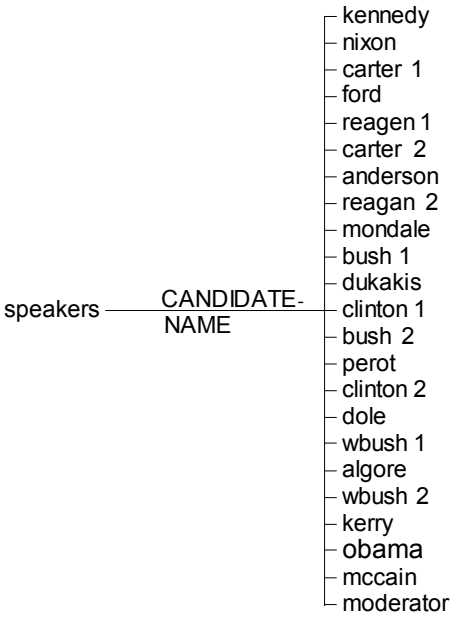

Figure 3: Speakers Layer.

Speakers layer

This layer includes the names of all the presidential candidates organized chronologically, where the elected presidents are mentioned first and the unelected presidents follow. Speakers layer is manually created by the user (Figure 3).

It is important to state here, that the numeral '1' and '2' beside the name signify whether it is the first or the second presidential nomination to the same candidate.

Segmentation

This process involves assigning boundaries in a piece of text. These boundaries vary according to the layers and the analysis carried out. There are two methods of segmentation in the available program: Automatic and manual segmentation. Automatic segmentation of clause boundaries is an option in the software at hand. Automatic segmentation is based on the three automatic layers, namely, STNFDParse, POS tagging, Automatic SFG.

The manual segmentation, on the other hand, is carried out according to the manually created layers. For example, using the thematization layer, the theme in the whole corpus is manually segmented and classified as either a marked or unmarked theme. Segmentation is an essential pre-requirement in the applications where data and information are then computationally processed according to the search queries requested.

Queries

The software permits a number of searching methods. Users may choose a segment (which can be a clause or any word class). Queries may be filtered by limiting its choice as having a specific string (of words or features) or having another segment embedded in it, such as an adverb or a noun. Search results are, then, classified by table, file, or by lemmatized summary. Lemmatized summary means grouping words according to their word class. So, the verbs 'see', 'sees', 'seeing', 'seen', and 'saw' are grouped under the stem 'see'.

The program enables an 'Auto Code' option which permits creating a rule to be applied, and the result is, then, assigned a specific feature. For example, in order to automatically code a clause as a passive clause, a user can create the following rule (Figure 4):

Finally, statistics are displayed in tables according to the requested queries. Comparisons can be made between more than one dataset or between numbers of files as seen in the following Figure 5.

General statistics about the Corpus

UAM Corpus Tools generate the following table which illustrates general statistics about the whole corpus. It provides information about the length of clause segments and the number of words in side each segment (Table 3).

As Kornai [25] suggests, the median sentence length is above 15 words. Such mathematical approach in linguistics serves as a measure of sentence difficulty or complexity. According to mathematical

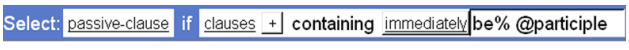

Figure 4: Auto Code syntax.

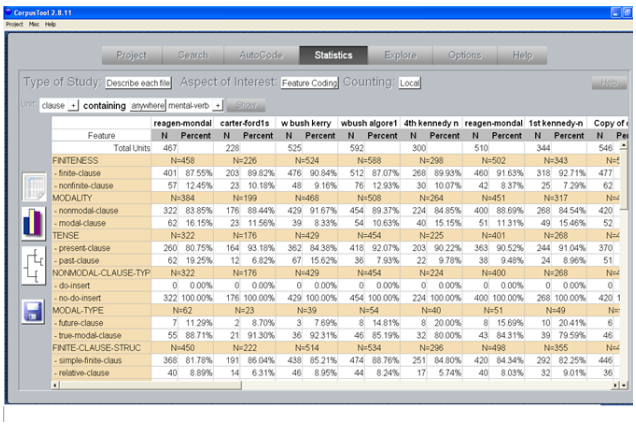

Figure 5: Example of the Statistical Representations.

Length:	
- Number of segments:	63628
- Words in segments:	696240
Text Complexity:	
- Av. Word Length:	4.40
- Av. Segment Length:	10.94
Lexical Density:	
- Lexemes per segment:	4.92
- Lexemes % of text:	44.98%

Table 3: General Statistics.

Kennedy	I	[past]	voted for	the Formosa resolution in 1955.
	Subject	Finite	predicate	complement
	Mood	Residue		

Table 4: Positive action taken by President Kennedy.

linguists, the more the average sentence length increases, the more complex sentences will be. In general, the clause length is expressed by the number of words. Thus, text complexity is measured by assigning the average word and segment length.

On the other hand, measuring the Lexical Density of a text is one of the key tools used by Halliday to identify the intricacy of a given text. The measure of the lexical density, as defined by Halliday and Mattiessen [26] is simply the division of lexical items by the number of clauses. Being a spoken discourse, lexical density seems, also to be consistent with its nature. Linguists claim that the balanced lexical density is approximately 50 percent. So, a text is defined to have low-density if it has less than a 50:50 ratio and this is typical of spoken discourse; and it is a high-density text if it has more than 50:50 which applies to the written intricate discourse. The software has also been used to measure the length, text complexity and the lexical complexity of each individual file in the analysed corpus.

It can be concluded that corpus linguistics is a viable approach for carrying out a discourse analysis. The wide range of tools and options provided are proved to be helpful in generating results which are, in turn, interpreted with the framework of appropriate theories.

Corpus analysis of the interpersonal metafunction

The interpersonal metafunction deals with the exchange that takes place between speakers and listeners or writers and readers. In the case of this study, it takes place between the presidential candidates, moderators/questioners and their electorates. Candidates give, demand, express attitudes, agree or disagree. All of these functions are achieved by the exploitation of Mood and modality [27-38].

Mood: In general, interacting with others requires a speaker to convey a statement, ask a question, or give a command or an offer. The analysis of the given corpus in terms of mood shows that the ordering of the finite element in most clauses of the presidential debates is Subject ^ Finite pattern, which signals that most of the clauses are declarative ones.

Due to the massive range of information that candidates need to convey, declaratives are widely used for a number of functions, either to acclaim, attack the opponent, or to defend one's image. The following example acclaims a positive action taken by President Kennedy (Table 4).

The following Figure 6 shows the range of Mood discrepancies in terms of the use of interrogatives and imperatives throughout the presidential debates.

As it is vital for a presidential candidate to give information, it is also important for him to demand services. This can be represented by using the strategy of asking questions (or interrogating) which comes next to declaratives in frequency as seen in the above Figure 6. The reason for this is that in presidential debates, the candidate can use the strategy of assigning himself as a questioner and answerer at the same time. The appropriate usage of interrogative clauses helps the candidate to create an intimate dialogic style (Table 5).

The previous examples are used by the presidential candidates to orient the hearers to the topic which is going to be discussed. These are rhetorical questions where neither the speaker nor the hearer expects an answer. Presidential candidates use such interrogatives for the sake of attracting the voter's attention [39-51].

As seen in Figures 6-8, imperatives are the least used by the candidates. It is undeniable that imperative clauses can be manipulated by the presidential candidates as they can get the audience to follow the candidates' instruction. They are the least used as they give an authoritarian impression which the candidate avoids in order to build up an equal and mutual reliant relationship with the audience. The following examples, though they are imperatives in structure, they

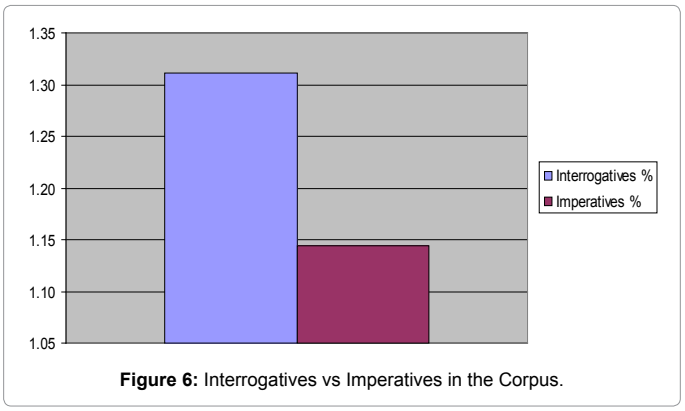

Figure 6: Interrogatives vs Imperatives in the Corpus.

Bush:	Can	we	start	the clock over?
Bush:	Are	the Soviets	coming	out of Afghanistan?
Carter:	Can	we	become	a breadbasket of the world instead of the arms merchant?
Carter:	Would	you	raise	the revenue to provide this tax relief?
	Finite	Subject	predicate	Complement
	Mood			
			Residue	

Table 5: Usage of interrogative clauses.

Perot:			Keep	in mind a factory worker has nothing to do with anything except putting it.
Perot:			Make	your decision, and
			vote	on November the 3rd.
Clinton:			Let	me respond.
	No Finite	No Subject	predicate	Complement
	Mood			
	Residue			

Table 6: Authoritarian impression.

empower the hearers and push them forward for doing something of their benefit (Table 6).

The imperative verbs 'Listen' and 'Look' are used for orientation reasons. They are used for drawing the voters' attention to the coming propositions. In the analyzed corpus, the use of imperatives is limited to four verbs as seen in Table 7.

The previous table shows that the highest usage of imperatives is Obama's, where he uses 49 imperative clauses in his turns. The lowest, on the other hand, is Anderson who lost his campaign in 1980.

So, despite of giving commands and putting the addressee in the role of obeying these orders, candidates use the imperatives as a tool of creating a common ground between them and the addressees [52-63].

However, imperative clauses can do other things other than giving commands such as making suggestions, attracting the voter's attention and inviting the audience to do something together. Table 7 shows the frequency of imperative verbs as used by the presidential candidates. The frequent instances of 'let me', serves to give the sense of taking permission from the audience who are meant to be vital participants in the debates. For example (Table 8). By using 'let us', on the other hand, candidates successfully shortens the distance between themselves and the audience asking them to take actions together and share the responsibilities together (Table 9).

Feature	let	look	look at	keep	make	Total
Obama	30	14	1	2	2	49
McCain	28	17	2	0	0	47
Clinton2	37	1	1	1	2	42
Perot	22	6	3	3	3	37
Al Gore	17	12	0	0	2	31
W.Bush2	18	4	0	3	6	31
W.Bush1	25	2	0	0	2	29
Clinton1	18	5	1	1	3	28
Bush2	16	5	2	2	2	27
Kerry	22	2	0	0	0	24
Nixon	19	1	0	0	3	23
Dole	17	1	0	1	0	19
Ford	14	1	1	0	0	16
Bush1	7	4	0	1	0	12
Kennedy	8	0	0	0	0	8
Dukakis	7	1	0	0	0	8
Carter1	4	0	0	1	2	7
Mondale	6	0	0	0	1	7
Reagan2	5	0	0	1	0	6
Reagen1	5	0	0	0	0	5
Carter2	1	0	0	1	0	2
Anderson	2	0	0	0	0	2
Total	328	76	11	17	28	460

Table 7: Frequency of Imperative Verbs.

Obama:			Let	me tell you who I associate with
Obama:			Let	me tell you another place to look for some savings.
	No Finite	No Subject	predicate	Complement
	Mood			
	Residue			

Table 8: Sharing the responsibilities together.

Bush:			Let	us teach and hold us accountable for every grade
Clinton:			Let	's look at the facts here.
Clinton:			Let	's balance the budget and protect Medicare.
	No Finite	No Subject	predicate	Complement
	Mood			
	Residue			

Table 9: Taking actions together.

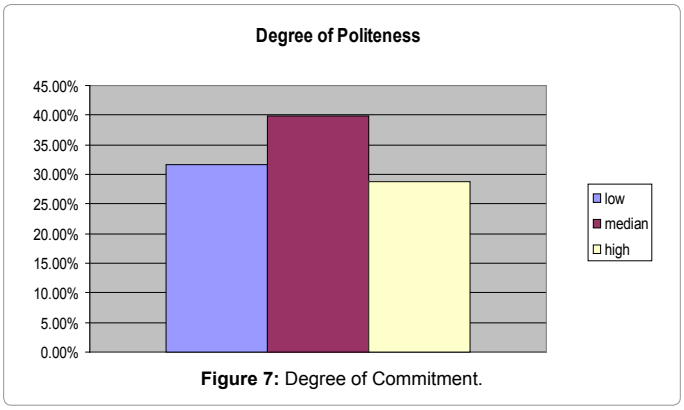

Figure 7: Degree of Commitment.

Clinton	We	should	give	a tax cut, targeted to child rearing and education.
Obama	We	would	approach	health care
	Subject	Finite	Predicate	Complement
	Mood			
	Residue			

Table 10: Presidential candidates.

Modality: As defined in SFG, 'Modality' stands between the extreme positive and the extreme negative. Its importance lies in giving the speaker the capability to objectively express his attitudes and judgments towards a certain topic. Doing so, speakers can identify their social relationships and manifest their power relationships between the participants.

Modal verbs and degree of commitment

According to Halliday [15], there are three basic values of modal commitment: high, median and low on the scale. And different scales of modal commitment lead to different meanings. Figure 7 points to the percentage of modal verbs according to their degree of commitment.

It is clear that the median modals represented in 'will', 'would', 'shall', and 'should' are the most frequent modal auxiliaries. This can be ascribed to the friendly intimate yet assertive and effective tone of the candidates. The least of them is the 'low modality' statements. The reason is ascribed to the fact that such kind of statements may allow for the possibility of evidence contrary to speakers claims, a matter which presidential candidates try to avoid (Table 10).

The use of verbs with high modal commitments reflects the firmness of candidates' attitude or belief. Also these modal auxiliaries show the presidential candidates' determination to finish the intended tasks which the voters will benefit (Table 11).

Figure 8 illustrates the percentage of each modal verb in all the debates. By statistics, it can be seen that the modal verb 'can' is the

Bush:	We	ought to	have	foreign aid.
Mondale:	We	must	be prepared	to meet that challenge
	Subject	Finite	Predicate	Complement
	Mood			
	Residue			

Table 11: Determination to finish the intended tasks.

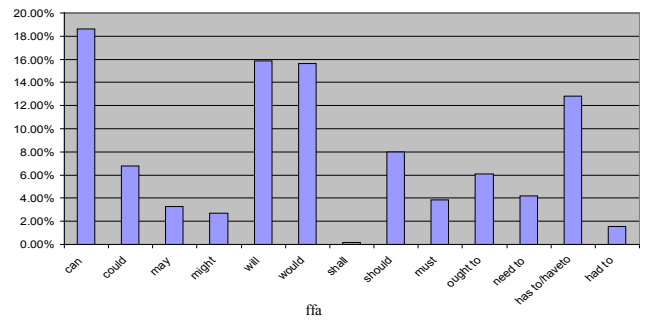

Figure 8: Percentage of the Modal Verbs in the Corpus.

Carter:	Together	We	can	make	great progress,
		we	can	correct	our difficult mistakes.
Perot:	Together	we	can	get	anything done.
	Adjunct	Subject	Finite	Predicate	Complement
		Mood			
	Residue				

Table 12: Encouraging the Americans to be confident.

Clinton:	I	will not	raise	taxes
Bush:	I	will	do	a good job as one who has had a relatively clean record
Obama:	I	will	work	every single day, tirelessly, on your behalf and on the behalf of the future of our children.
	Subject	Finite	Predicate	Complement
	Mood			
	Residue			

Table 13: Certainty and determination.

most frequent auxiliary in all the debates. Next in frequency are 'will', 'would', and 'have to'. Least of them all is the auxiliary 'shall' which is least used by the presidential candidates.

The low modal 'can' is, also, used to weaken the candidate's authority and to shorten the distance between him and the audience by encouraging the Americans to be confident that they have the ability to do anything even in their worst days (Table 12) [64-76].

The constant assurance that there is always hope is supported by the usage of the median modals 'will' and 'would' which come next to 'can' in frequency. The use of the modals 'will' and 'would' is reinforced by the obligation which is imposed by the situation where both speakers and listeners lie in. Candidates opt for these two modals to give the impression of prediction, hope, certainty and determination that more actions will be definitely taken in the future (Table 13).

It is worth noting that the high modals 'have to' and 'has to' are used in favor of 'must' which has a more authoritarian tone of obligation by the speaker (Table 14).

However, 'must', which represents the highest scale of modal commitment, is used in the debates to enable the addresser to show his firm determination on taking actions to achieve their common objectives (Table 15).

Figure 9 shows a comparison between the elected versus the unelected candidates in terms of using the modal verbs in their turns.

It can be noted that the most skillful candidate is the one who balances the manipulation of modalities. Figure 9 shows that those who are unelected overused the modal auxiliaries in comparison with the elected presidential candidates [77-85].

Modal adjuncts

Within modality, modal adjuncts play the same role of the modal verbs. They are used to express degrees of certainty, usuality, etc. They

Nixon:	We	have to	revitalize	our society.
Kennedy:	The people	have to	make	a choice between Mr. Nixon and myself.
	Subject	Finite	Predicate	Complement
	Mood			
	Residue			

Table 14: Authoritarian tone of obligation by the speaker.

Carter:	We	must	have	a society that's just and fair.
Carter:	we	must	extend	the benefits of our own commitment to peace.
Ford:	we	must	make	this next century the century of the individual.
	Subject	Finite	Predicate	Complement
	Mood			
	Residue			

Table 15: Firm determination on taking actions.

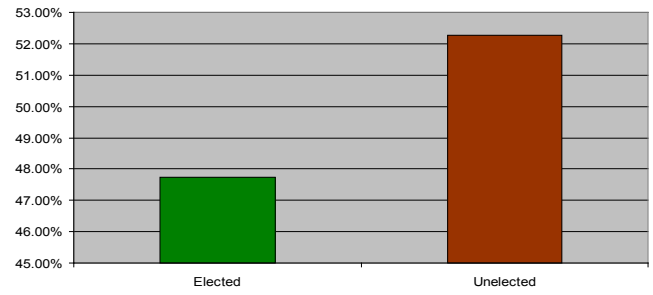

Figure 9: Modal verbs for elected vs Unelected Candidates.

mood adjunct	percentage
maybe	26.52%
certainly	20.76%
probably	18.07%
perhaps	14.21%
possibly	7.73%
likely	4.72%
surely	3.08%
necessarily	2.49%
presumably	0.59%
supposedly	0.52%
conceivably	0.46%

Table 16: Frequency of Modal Adjuncts.

can be classified into two types: (1) mood adjuncts, and (2) comment adjuncts. The following table shows the percentage of the modal adjuncts used in the given corpus. It can be seen that the modal adjuncts that signify certainty are the mostly used modal adjuncts (Table 16).

The following examples show how presidential candidates use modal adjuncts to express their attitudes and judgments about their world view (Tables 17-19).

As indicated in table, it can be noticed that presidential candidates use a variety of adjuncts to show how they see the world around them. Comment adjuncts are also used to perform the modal function of expressing attitudes and judgments (Table 20) [86-98].

The following examples show how comment adjuncts are exploited by candidates reflecting they way they evaluate things around them (Tables 21 and 22).

Such use of comment adjuncts is helpful in convincing the audience with the point of view that the candidate has. Using them properly helps in sharing the same views between the candidate and the voters.

Carter:	I	would	certainly	not	cut out	atomic power altogether.
	Subject	Finite	Modal adjunct	mood Adjunct	Predicate	Complement
	Mood				Residue	

Table 17: Attitudes and judgments.

Dukakis:	Now,	the Vice President	will	probably	tell	you that it's going to take an army of IRS collectors again.
	Adjunct	Subject	Finite	Modal adjunct	Predicate	Complement
		Mood				
	Residue					

Table 18: Presidential candidates use modal adjuncts.

Bush:	Surely,	this nation	can	come	together to promote the value of life.
	Modal adjunct	Subject	Finite	Predicate	Complement
	Mood				
	Residue				

Table 19: Attitudes and judgments about their world view.

comment adjunct	percentage
completely	6.23%
directly	5.51%
carefully	3.83%
direct	3.35%
deeply	3.03%
illegally	2.87%
differently	2.79%
fairly	2.63%
highly	2.15%
fast	2.00%
effectively	1.92%
fiscally	1.76%
hopefully	1.60%
frankly	1.60%
dramatically	1.36%
correctly	1.36%
essentially	1.28%
literally	1.20%
closely	1.12%
badly	1.12%
equally	1.12%
generally	1.12%
approximately	1.04%
accurately	1.04%
honestly	1.04%

Table 20: Comment Adjuncts.

Vocatives

According to the word list generated by UAM Corpus Tool, there are 271 vocatives used in the 696,240 word corpus. It can be noticed from the following Figure 10 that, historically the use of vocatives increases throughout time. Observing Figure 10, it can be seen that in year 1960 vocatives did not exceeded 6% of the total number of vocatives in the whole corpus. The percentage goes on increasing till it reaches, in 2008, more than 12% of the over all vocatives in the corpus.

It can also be seen that it is the unelected candidates who use vocatives more than their elected counterparts. Throughout the whole corpus, the unelected candidates use 60.52% of the total number of vocatives, while the elected candidates use 39.48%. Figures 8-13 shows the discrepancy between the uses of vocatives whether by elected or unelected candidates (Figure 11).

As a norm in the genre of political debates, the moderator of the debate frequently uses vocatives to direct questions to the candidates and in order to give them the floor. However, candidates also make use of vocatives in their turns. The following Figure 12 shows that 64.57% of the vocatives used by candidates are directed to the moderators or

Clinton:	This country	desperately	[present]	needs	a jobs program
Kennedy:	I	completely	[past]	sustained	the treaty
	Subject	Comment Adjunct	Finite	Predicate	complement
	Mood			Residue	

Table 21: Comment adjuncts are exploited.

Bush:	We	have	dramatically	changed	the world.
McCain:	I	have been	heavily	criticized	because I called for the resignation of the chairman
Bush:	It	was	fortunately	stopped	in its tracks
	Subject	Finite	Comment Adjunct	Predicate	Complement
	Mood			Residue	

Table 22: Evaluate things.

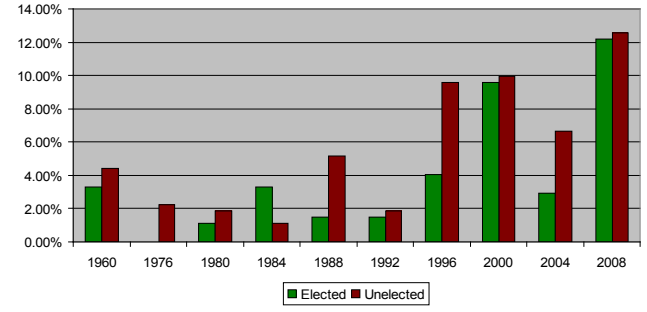

Figure 10: Vocatives used by Candidates.

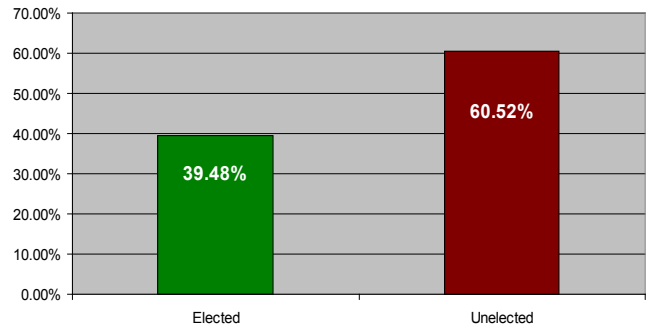

Figure 11: Elected vs. Unelected Candidates.

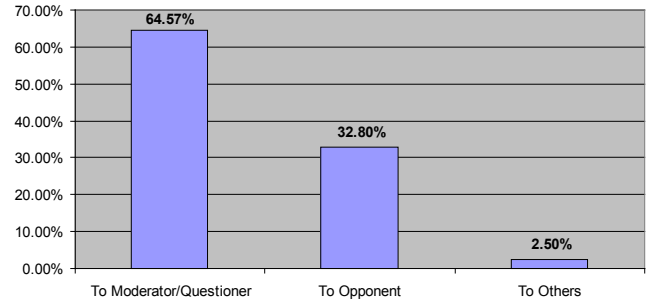

Figure 12: Vocatives as Directed by Candidates.

Bush	But,	Peter,	so much of it	[present]	is.
	mood adjunct	vocative	Subject	Finite	predicate
	Mood				Residue

Table 23: Interpersonal relationships.

Bush:	Hey,	Joe,	you	[present]	're	rich,	congratulations.
	mood adjunct	vocative	Subject	Finite	complement	mood adjunct	mood adjunct
	Mood				Residue		

Table 24: Intimate use of vocatives.

the questioners, 32.8% of the vocatives are directed to the opponent, while 2.5% are directed to others such as 'my fellow Americans', 'folks' and 'ladies and gentlemen' (Figure 12) [99-105].

Vocatives, as claimed by linguists, express emotive meanings with various degrees of feelings. When a presidential candidate uses vocatives to call for the hearer he identifies himself in relation to the person called out, whether mediator, questioner, opponent or the American voters. Using such forms of address is aimed at sending a social message about the interpersonal relationships between the interlocutors. Such intimate use of vocatives can be exemplified in the following examples (Tables 23 and 24).

The following Figure 13 shows how the presidential candidates use the various forms of address.

It can be seen that candidates tend to call the questioner or the debate moderator by first name. Candidates use more than 54% of their vocatives to address the questioner by their first name. It is worth noting that vocatives are seen as integral elements in the structure of clauses, "but outside the scope of the Mood and Residue" [15]. For

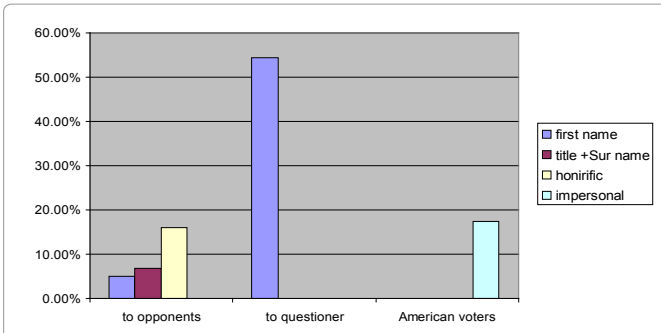

Figure 13: Types of Vocatives as Used by Candidates.

this reason the following examples are not illustrated in tables so as to facilitate their representation. Consider the following examples:

1) W Bush: Jim, [vocative] thank you very much. Mr. Vice President, [vocative] thank you very much.

2) Obama: I want to first, obviously, thank Belmont University, Tom, [vocative] thank you and to all of you who are participating tonight.

Calling someone by his first name can indicate that the speaker is more powerful than the hearer as in

1) Obama: That's not true, John [vocative]. That's not true.

Also the speaker may be attempting to maintain and reinforce social relationships, as in

2) McCain: Tom, [vocative] wave like that and I'll look at you.

It can be seen that in the case of presidential debates, candidates seek to sustain friendliness and causality in the atmosphere of the debate. Being a friend is a strategy of getting closer to the participants, thus appealing to the hearers.

Also, a candidate may call a participant especially a questioner, who is usually one of the audiences, by name to validate or confirm an assertion about what is said. As for calling a moderator by name, a candidate may seek to hold the floor and clear a space for a lengthy turn as in the following one:

1) Dukakis: I'm saying that those of us who are elected to positions of political leadership, Jim, [vocative] have a special responsibility, not only to come up with programs, and I have outlined in detail the very important, very strong.

Next in percentage is the impersonal forms of address represented in examples such as 'dear folks', 'my fellow Americans', or 'ladies and gentle men'. Such kind of vocatives aims at attracting the voter's attention to the message transmitted in an intimate relationship. The following examples illustrate the point:

1) Clinton: Thank you, Carole, [vocative] and thank you, ladies and gentlemen.

2) Kerry: Now, my fellow Americans, [vocative] that's an invitation to disaster.

3) Perot: Well, folks, [vocative] we got one, and that one is a financial crisis.

Next in percentage is the Candidate's use of vocatives to address their presidential rival. The above Figure 13 shows that a total of 28.06%

of vocatives are used by the candidate to address his rival. Namely, 5.06% of the vocatives are in the form of first name where a candidate tries to show how superior he is to this rival, as in

1) Obama: John, [vocative] you like to pretend like the war started in 2007; 6.9% in the form of title + Surname where a candidate tries to show a distance between him and the addressed.

2) Reagan: I know it'll come as a surprise, Mr. Mondale, [vocative] but I am in charge; and 16.1% by using honorifics to show distance and respect.

3) McCain: And, Senator Obama, [vocative] it's good to be with you at a town hall meeting.When using the forms of address to opponents, candidates, generally, tend to identifying him as an addressee, thus directing any kind of accusation or attack direct to him.

4) W. Bush: You've had your chance, Vice President, [vocative] you've been there for eight years and nothing has been done.

Conclusion

The study answers the question of the importance of Corpus Linguistics in studies related to the analysis of discourse. By analyzing the lexico-grammatical structures of the corpus at hand, it has been realized that a presidential candidate exploits the proposed metafunction to achieve one main goal; that is, getting the American people to vote for him.

It is clear from the analysis carried out that the corpus linguistic approach helpful in extracting the grammatical choices that are intended to communicate some kind of interpersonal messages between the presidential candidates and the voters. Such generated statistical records reflects the interpersonal relations that are manifested through the exploitation of the grammar of Mood, modality, tense, aspect, pronouns and vocatives.

The generated results of Mood choices enable linguists and discourse analyst to pinpoint the implications of the choice of the presidential candidates which in turn enables him to sustain a relationship with the listeners. He can perform a number of functions, namely, inform, attack rivals, acclaim, attract the audiences' attention, having permission from the moderator, and others. Such acts are adjacent with the intention of creating an intimate dialogic style avoiding any authoritarian impression on the listeners.

Throughout the debates, the presidential candidates exchange propositions, express their attitudes and judgments towards the raised topics with the help of the modal choices available again with a friendly intimate, yet assertive and effective tone to the voters. Modality allows candidates to predict, hope, show certainty or determination, and avoid reference to unwanted subjects and other functions. Supporting the dialogic style, presidential candidates tend to use vocatives and call people by name. Such strategy helps the candidate in identifying himself with the person called out, especially the American voters.

Acknowledgment

This is deeply to acknowledge both Helwan University and the Arab Academy for Science and Technology for helping me creating this paper. The assistant of my peers made it possible for such study to come to light.

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