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**MAESTRÍA EN INGLÉS CON ORIENTACIÓN EN
LINGÜÍSTICA APLICADA**

TESIS FINAL DE MAESTRÍA

**“El uso de rasgos paralingüísticos en el discurso político. Una
caracterización del género discursivo”**

de

Franco Zanfagnini

Directora: Mgtr. Florencia Gimenez

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Abstract

The present work aims to characterise political speeches considering the use of a group of paralinguistic features (PF) taken from Brown's (1990) taxonomy (rhetorical pause, loudness, timing of segments, tempo), and to explore the relationships between these vocal cues and the expression of emotions, intentions and attitudes. The sample consisted of two presidential inaugural speeches by one female and one male speaker: Theresa May's 2016 inaugural and Barack Hussein Obama's 2013 second inaugural. The study conducted resorted to both qualitative and quantitative methods. The qualitative analysis consisted of different steps. First, trained auditory analysis was carried out by professional phoneticians to identify the PFs under analysis in the samples. Second, this analysis was supplemented with acoustic measures using PRAAT (Boersma & Weenink, 2021). Third, the trained analysts proceeded to make a situated interpretation of the emotions the speakers were believed to convey through the use of those vocal cues. Quantitative information was obtained when the frequency of occurrence of each of the PFs analysed and of the different emotions were calculated. Finally, associations between the PFs in focus in this study and the attitudes, emotions or intentions detected were established. A preliminary hierarchy of PFs derived from the analysis. The rhetorical pause is the most frequently used PF in the political speeches analysed. As regards the relationships between the PFs analysed and the expression of emotion, the data yielded contradictory results. From the data gathered and the results obtained, this work explored the pedagogical implications for the teaching and learning of PFs when reading aloud political speeches at university level in EFL contexts such as the School of Languages, UNC.

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Chapter I

Introduction

This chapter is organized in three sections. Section 1 introduces the context and purpose of the present work. Section 2 presents the reader with the aims, objectives and the RQs which were the main triggers in this study. Section 3 includes an overview of the chapters that frame this thesis.

Section 1

I.1 Context and purpose of the study

The main purpose of this study is to describe political speeches from a phonological perspective, more specifically, considering the use of paralinguistic features (PFs hereafter) presented in Brown's (1990) work.

In order to convince the target audience, political speeches have a particular way of communicating ideas to the public. Their rhetorical organization is unique, since they combine both: a set of pre-planned or previously organised ideas (typical of the written mode of language), and the element of spontaneity at the moment of facing the public (typical of the oral mode of language). Political speeches display an array of discourse strategies and "every layer of its textual organisation as well as its oral delivery are the object of deliberate design and careful rehearsal" (Carranza, 2008, p. 33).

In the three tracks of studies in English at School of Languages, Universidad Nacional de Córdoba (UNC hereafter), the students receive a three-year training in the field of phonology. During the first two years, the pronunciation courses aim at providing students with profound knowledge of the segmental and supra-segmental features of

speech in English. It is in the third year of phonological instruction, in the course titled Phonetics and Phonology II, that the focus is placed on the oral interpretation of texts, for which an effective use of PFs is of paramount importance. The development of this skill at this point of the training is grounded on the belief that effective oral performance is one the main skills future professionals of the English language need to acquire. Therefore, one of the main interests of this study is that the findings help students improve their interpretative reading aloud skills.

Reading aloud in Phonetics and Phonology II poses many challenges to undergraduate students who, as part of the subject, are faced with the task of transforming written texts into oral ones. In order to carry out the reading aloud task effectively, learners have the challenge of understanding the possible contexts in which the texts have been produced and reflect upon attitudes and emotions that may be effective to convey in front of a particular audience.

Experience in the classroom has shown that third year students find difficulty in expressing emotions when interpreting written texts aloud. Therefore, the study of PFs plays a key role in this subject since these features “contribute to the expression of attitude by a speaker” (Brown, 1990, p. 112). In other words, PFs are resources through which “the feelings and attitudes of the speaker are to some extent revealed to the listener” (Brown, 1990, p. 112).¹

The Phonetics and Phonology II class material presents the students with texts from a variety of genres such as fairy tales, poems, extracts from T.V series and movies,

¹ When making reference to the terms used to refer to the language of emotions, Brown (1990) uses the terms “emotions”, “intentions” and also “attitudes”. However, Brown indicates that she has “not attempted to discriminate very delicately between these terms” (p. 136). When addressing this issue, Scherer (2005, p. 69) proposes the term “affect” since it “subsumes a variety of phenomena such as emotion, stress, mood, interpersonal stance, and affective personality traits”. Considering the former views, the terms “emotions”, “intentions”, “attitudes”, and “affect” will be used indistinctively hereafter.

among others. Of special interest for this study is the case of political speeches, since the findings in this study might shed light on the use of PFs and the expression of emotions in this specific genre, which students tend to find unfamiliar and difficult to understand. The main purpose of this study is to describe political speeches from a phonological perspective, more specifically, considering the use of PFs presented in Brown's (1990) work.

Section 2

This section presents the objectives and the RQs underlying this thesis.

I.2 Aims of the study

This work aims at studying political discourse from a phonological perspective. The present study also attempts to thoroughly analyse the case of inaugural speeches in order to identify which PFs are the most frequently preferred by political leaders and which emotions these generally convey. The analysis of political discourse from this perspective will hopefully lead to the elaboration of pedagogical implications for teaching this genre.

I.2.1 Research Questions

The research questions which were the main triggers in this thesis are the following ones:

- 1) Of the PFs under study, which are the most frequently used PFs in the political speeches analysed?
- 2) What possible relationships there exist between the PFs analysed and the types of emotions, intentions and attitudes when these political leaders deliver their speeches?

- 3) What pedagogical implications can be derived from this study?

I.2.2 Objectives

The previous research questions are associated to the following objectives:

General objectives:

- 1) To contribute to the characterization of political speeches from a phonological perspective.

Specific Objectives:

- 1) To identify the most frequent PFs used by interlocutors at the time of delivering political speeches.
- 2) To measure the frequency of occurrence of the PFs analysed in political speeches.
- 3) To establish a relationship between the PFs analysed and the possible emotions, intentions and attitudes they communicate.
- 4) To elaborate pedagogical guidelines to help students improve their reading aloud skills in relation to political speeches.

Section 3

I.3 Overview

The present work is divided into eight chapters. Chapter I, Introduction, presents the context and purpose of this study as well as the main aims, the research questions and the objectives which underlie this thesis. Chapter II, Theoretical Framework, deals with the conceptualisation and definition of PFs, the notion of genre, and presents the reader with Brown's taxonomy, which is the matrix for the analysis in this work. Chapter III, Literature Review, presents some of the most relevant studies on political discourse and the oral expression of affect.

Chapter IV, Methodology, describes the research design adopted in the present thesis. This chapter provides the reader with a detailed description of the materials and the procedures of data collection and classification.

Chapter V, Results, presents the results gathered after carrying out the analysis of the data in relation to two of the research questions in this study: RQ1- Of the PFs under study, which are the most frequently used in the political speeches analysed? and RQ2- What possible relationships there exist between the PFs analysed and the types of emotions when these political leaders deliver their speeches. RQ3 is dealt with in Chapter VII, Pedagogical Implications.

The results obtained in this study are discussed in Chapter VI, Discussion. This chapter discusses both the phonological analysis and the situated interpretation of the emotions politicians have tried to convey when delivering the speeches analysed.

Finally, Chapter VIII, Conclusion and Lines for Further Research, deals with the main conclusions in relation to the findings, presents the limitations of this study and discusses possible areas for future research.

Chapter II

Theoretical Framework

This chapter offers a summary of the theoretical framework for this study. It is divided into two sections. The first one begins with an overview of how the term PFs has been defined by different linguists (Brown, 1990; Couper-Kuhlen, 1986; Cruttenden, 1997; Crystal, 1966, 1969, 1975; Harmer, 2007; Roach, 1998, 2000, 2009). A complete description of the taxonomy of PFs devised by Brown is included in this section since it is the framework of description for the paralinguistic vocal features this study draws on. Section two includes a characterization of political discourse, defines the notion of “genre” and, finally, depicts the inaugural address as a genre within political discourse.

Section 1

II. 1 Paralinguistic features: Conceptualization and Definition

II. 1.1 Prosodic vs. Paralinguistic features

The term “paralanguage” was first introduced by Trager (1958) and later on elaborated by Crystal (1966, 1975), who also coined the term “paralinguistic phenomena”. Crystal (1975) argues that PFs features are mainly used for the expression of emotions and defines them as “any meaningful contrastive sound effect which cannot be described in terms of segments, or phonemes, in the sound system of a language but which extends over stretches of utterance at least a syllable in length” (p. 123).

Crystal and Davy (1969) differentiate prosodic from PFs and place them along a continuum. The former make reference to variations in the “parameters of frequency, amplitude and speed of utterance (auditory pitch, loudness and tempo), which permanently characterize speech” (Crystal, 1966, p. 96). The latter are primarily

identified with reference to the “workings of physiological mechanisms in the pharyngeal, oral and nasal cavities” (Crystal, 1966, p. 96) and “have no dependence on pitch, loudness or speed for their contrastivity” (Crystal & Davy, 1969, p. 37). The prosodic end of the continuum can be closely related to intonation, while the paralinguistic end of the continuum is mainly associated to vocal effects “caused by configurations of glottal and supraglottal organs” (p. 36). Table 2.1 presents the features included in each group:

Table 2.1

Prosodic and PFs (Crystal, 1975; Crystal & Davy, 1969)

PROSODIC FEATURES	PARALINGUISTIC FEATURES
<p>PITCH: <i>widened pitch-range, narrowed pitch-range, monotone pitch range, high pitch range, low pitch range, ascending pitch range, descending pitch range</i></p> <p>LOUDNESS: <i>forte, fortissimo, piano, pianissimo, crescendo, diminuendo</i></p> <p>SPEED: <i>clipped syllables, clipped syllables, held syllables, allegro, allegro, allegro, lento, lentissimo, accelerando, rallentando.</i></p> <p>RHYTHM: <i>rhythmic/arhythmic, spiky/glissando, staccato/legado</i></p> <p>PAUSE: <i>unit pause, brief pause, double pause, voiced pause</i></p> <p>TENSION: <i>tense/lax, precise/slurred</i></p>	<p>LARYNX EFFECTS and</p> <p>ORAL EFFECTS</p> <p><i>whisper, breathy, husky, creak, falsetto, resonant, spread, laugh, giggle, tremulousness, sob, cry.</i></p>

Crystal (1975) states that both prosodic and PFs enter into the realm of paralinguistics and can be exploited by speakers to alter the meaning of an utterance “when [they are] substituted for another effect within it” (p. 171). Moreover, Crystal indicates that “paralinguistic phenomena, far from being marginal, are frequently the primary determinants of behaviours in an interaction” (p. 164). The

author also explains that, sometimes, these phenomena “push the so-called ‘cognitive’ or ‘denotative’ aspect of the utterances used into a secondary role” (p. 164). In this sense, Crystal’s view is similar to that of Brown’s (1990), the author whose taxonomy has been used as a basis for the analysis presented in this study.

Couper-Kuhlen (1986) takes a similar stance to that adopted by Crystal and Davy (1969) and Crystal (1975) in the sense that she makes a distinction between intonation and PFs and considers that “both types of non-verbal effect may be important in the identification of attitude” (p. 184). She believes this distinction to be crucial “if the precise linguistic role of intonation in communicating is to be properly assessed” (p.184). When concentrating on studies on intonation, attitude and lexico-grammatical meaning, Couper-Kuhlen (1986) indicates that “the belief that grammatical and attitudinal functions are discrete and non-overlapping” is a fundamental mistake, since “grammatical and attitudinal factors are present in every utterance” (p. 182). Therefore, “we are dealing not merely with a two-way interaction between intonation and lexis, but with a three-way interaction between intonation, lexis and content” (p. 184).

Cruttenden (1997) establishes a differentiation between the terms “prosodic”, “paralinguistic” and “extralinguistic”. He indicates that “both prosodic and paralinguistic refer to vocal effects which are used to convey meaning” (p. 172). However, the main distinction between these terms is that “paralinguistic effects, as opposed to prosodic features, are interruptive rather than co-occurrent” (p. 172). The author indicates that PFs differ from “extralinguistic features” in the sense that the latter “are co-occurrent and interruptive effects which have no conventional meaning but are conditioned by factors over which the speaker has no immediate control” (p. 172) like sex, age and body-build. When expanding on the concept of PFs, Cruttenden (1997) indicates that “the most common interruptive effect” is the pause; and he also lists different classes of interruptive

effects, such as “crying, sobbing, laughing and giggling, which seem to be more or less universal” (p. 174).

Roach’s (2000, 2009) position is similar to that of Crystal (1975), Crystal and Davy, (1969) and Couper-Kuhlen (1986) since he establishes a clear delineation between linguistic and PFs of speech. On the one hand, the author makes reference to prosodic variables as linguistic and, consequently, “part of intonation” (2000, para. 19). On the other hand, he conceptualizes the term “paralinguistic” as a characteristic of speech which implies phenomena “outside the system of contrasts used in spoken language” (para. 19). Thus, he considers vocal effects, such as laughs or sobs, under the category of non-linguistic, together with gestures and facial expressions. The author further explains that despite the fact that these paralinguistic effects are “obviously relevant to the act of speaking (...) they could not themselves be properly regarded as components of speech” (2009, p. 150).

In a similar vein, Harmer (2007) divides PFs in two broad categories: those which involve voice and those which involve the broader category of body language, within which he includes facial expressions, gestures and posture.

All these authors make a clear distinction between linguistic features that are part of closed systems of contrasts and are clearly integrated with other aspects of linguistic structure, and PFs which have little potential for entering into systemic relationships. They all agree on the fact that, either linguistic or non-linguistic, these features are an intrinsic part of the way in which we communicate face-to-face with other interlocutors and convey affective meaning transmitting information orally.

II. 1.2 Paralinguistic features: an encompassing term

Some authors (Brown, 1990; Karpiński, 2012; Schuller, et al., 2013) indicate that PFs are “everything that can be found in the speech signal, e.g. in telephone speech or in

audio recordings, which cannot be described only in strictly phonetic and/or linguistic terms” (Schuller et al., 2013, p. 5).

Brown (1990) defines PFs of speech as “phonetic features of speech which do not form an intrinsic part of the phonological contrasts which make up the verbal message” and “which contribute to the expression of attitude by the speaker” (p. 112). She is concerned with “patterns of variation from the norm” (p. 115) which are interpreted as modifying an utterance.

In line with Brown’s (1990) view, Karpiński (2012) states that “these phenomena are commonly understood as expressions of attitudinal and emotional states or as indicators of the speaker’s condition, such as joy, sadness, tiredness or hesitation” (p. 47). The author broadens the definition of these features and states that they include “conscious, intentional performance but also features of articulation, facial expression or gesticulation that are not fully controlled by the speaker” (p.47). In other words, when speakers deliver their message, there are elements that are consciously manipulated and become “cues to the mental and physical state of the speaker” (p.47).

This work has adopted Brown’s (1990) conceptualization of PFs, explained in detail in the following section, for two main reasons. First, to our knowledge, Brown is the only researcher that has come up with a framework of description for paralinguistic vocal features accessible to the general reader. The second reason derives from the first one. Phonetics and Phonology II teachers at the School of Languages, UNC, have found Brown’s taxonomy to be a useful tool when teaching these features to third-year students, who are already advanced students in the three training tracks. Consequently, if the findings of this work are to be used in the subject for the teaching and learning of political discourse, it seems sensible to follow the same classification to carry out the analysis.

II. 1.2.1 Brown's developments. As already stated, Brown (1990) defines PFs as “phonetic features of speech which do not form an intrinsic part of the phonological contrasts which make up the verbal message” (p. 112). Brown explains that PFs are not isolated from other modes and contribute directly to the interpretation of the “affective meaning of the utterance” (p. 113). In other words, these phenomena contribute to adding meaning “over and above the verbal element of the message” (p. 113). Therefore, PFs are vocal effects through which speakers can encode, transmit and materialize their feelings, intentions, emotions and attitudes to others.

When further describing PFs, Brown (1990) states that these phenomena are “relative” features of speech. That is, they may vary from culture to culture, and different social groups may make use of them in similar (or different) ways.

Brown (1990) states that PFs are frequently used to reinforce the content of the verbal utterances produced by speakers; however, the author draws attention to the concept of irony indicating that there can be linguistic exchanges in which listeners perceive a mismatch between the verbal content of the utterance and “the way something is said” (p. 113). When such mismatch occurs, listeners need to focus not only on the verbal content of an utterance, but also on the intended message.

One of the main ideas put forward by Brown (1990) is the fact that paralinguistic phenomena are not reliant or dependent on what has been traditionally labelled as “body-language”. In her work, the author concentrates primarily on “features which we listen to, and which we can hear over the radio, telephone or tape recorder” and “fall within the province of ‘listening’ to spoken English” (p. 114).

Brown's (1990) view is similar to that of Karpiński, who states that PFs are “phenomena and features of a speaker's behaviour that go beyond the (current) limits of systematic linguistic description but still influence the way his/her communicational

contribution is understood by his/her conversational partner(s)” (p. 47). However, the main distinction between these works is that Brown (1990) does not consider the dimensions which Karpiński, in line with Harmer (2007), labels as “facial expression or gesticulation” (p. 47).

In this sense, Brown’s (1990) perspective is similar to that of Schuller et al. (2013), who restrict the term PF to “everything that can be found in the speech signal, e. g., in telephone speech or in audio recordings, which cannot be described only in strictly phonetic and/or linguistic terms” (p. 2).

Finally, Brown’s contribution is of the essence for the present work. Due to the lack of a generally agreed accessible framework of description of paralinguistic phenomena, Brown (1990) designs a taxonomy which includes 11 features to classify “patterns of variation from the norm which are interpreted by listeners as modifying a given utterance” (p. 115).

In order to study and characterize the PFs present in political discourse, more precisely political speeches, this work will resort to Brown’s taxonomy.

II. 1.2.2 Brown’s taxonomy. Below, the 11 PFs included in Brown’s (1990) taxonomy are listed and described below:

(i) Pitch span. This feature is defined as “voice range” (Brown, 1990, p. 115). According to Patterson and Ladd (1999), it is “the difference between minimum and maximum fundamental frequency (F0)” (p. 1169). Each individual has a voice range within which they normally speak. As Brown states, deviations from the norm (in this case, extended pitch span and restricted pitch span) usually signal “a particular type of attitude” (p. 117), which will depend on the context of production of the utterance.

(ii) Placing in voice range. This feature is closely related to the preceding one. Brown (1990) states each individual’s voice has a range in which he/she normally speaks.

The author distinguishes between normal placing in voice range, which is the unmarked choice, and a higher or lower placing in voice range, which are the deviations from the norm. These higher or lower placing in voice range tend to be used to convey happiness, surprise, joy, anger or also nervousness. Moreover, Brown indicates that the highest placing in voice corresponds to the “squeak” range, whereas the lowest placing in voice range corresponds to the “growl” range.

(iii) Direction of Pitch. According to Brown (1990), “the ‘unmarked’ direction of pitch in English is the fall” (p.122). Rising tones, such as the case of the “high rise”, are examples of deviations from the norm and, in general, involve extended pitch span since they always express “some strong reaction to what has just been said” (p. 122). Brown states that making use of the “high rise” always demands a particular type of answer on the other interlocutor. The author associates the use of this feature to emotions such as surprise and incredulity, among others.

(iv) Tempo. This PF makes reference to the speed at which the message (or a group of syllables) is uttered. According to Brown, “everyone has a normal tempo of speech” (1990, p. 124). When making reference to the duration or length of a message, Cruttenden (2008) explains that “the average rate of delivery might contain anything from about six to 20 sounds per second” (p. 24). Within this range, the speed of delivery of a message can be considered normal. When making reference to deviations from the norm, Brown (1990) makes reference to fast and slow tempo, which are also resources through which interlocutors can express different emotions.

(v) Loudness. Cruttenden (2008) defines this feature as “the size or amplitude of the vibration” (p. 23). The author indicates that ‘intensity’ is closely related to the production stage whereas the term ‘loudness’ is associated to the receiving stage. Again,

Brown (1990) makes reference to those cases which deviate from the norm since these can signal particular emotions.

(vi) Voice setting. Brown defines this PF as “adjustments in the vocal cords which give rise to different effects of voicing” (1990, p.128). The author makes reference to a normal setting as the unmarked choice, whereas she considers breathy and creaky voice settings as marked choices. According to Brown, breathiness can be associated to literary terms such as panted, gasped, or breathlessly; creakiness is frequently related to terms such as purred, gratingly, and murmured, among others.

(vii) Articulatory setting. Brown defines this feature as the “overall tense setting of the articulatory tract”, which is especially “marked by the hardening of the musculature in the pharyngeal cavity” (1990, p. 129). According to the author, the use of this feature can be associated with emotions such as nervousness, among others.

(viii) Articulatory precision. This feature makes reference to the quality and accuracy with which the sounds are produced by different speakers. In this case, Cruttenden explains that this feature is closely related to the “degree of formality, [informality] (2008, p. 294) of the context in which the utterances were produced. In line with Cruttenden’s view, Brown (1990) states that this feature can be used as a “stylistic device” (p. 130) to make a particular part of a message stand out. Brown explains that there are times in which speakers speak “slowly and very precisely, realizing final consonants” (p. 130) without making any simplification in their speech. The deviations from the norm highlighted by Brown are precise and slurred articulation. Similarly, Ariztimuño (2016) explains that precise articulation “respects to a greater degree of the individual qualities of sounds in words”, whereas slurred articulation “manifests greater influence and assimilation of sounds at word boundaries” (p. 19).

(ix) Timing of segments and syllables. This feature makes reference to the “relative lengths of different segments [or syllables] in different stress and intonation environments” (Brown, 1990, p. 131). In her taxonomy, Brown considers normal timing of segments as the unmarked choice, and explains that extended timing of segments can be identified as a deviation from the norm of a speaker. This vocal effect can be used to express different degrees of certainty when speakers communicate, or can be used to highlight particular words or phrases.

(x) Lip setting. According to Brown, lip posture has a “profound effect upon the *sound* of the spoken message” (1990, p. 132). The author states that it is easy to identify whether speakers on the radio or telephone are smiling or not, and she indicates that it is often possible for listeners to hear “the effect of pouting lips” (p. 132). Despite the fact that smiling lip setting is frequently associated with states of happiness, Brown (1990) explains that it can also be used to convey irony or sarcasm if there is a mismatch between the verbal content of the utterance and the choice of this PF.

(xi) Rhetorical pause. “A period of vocal inactivity of a certain duration embedded in the stream of speech” (Oliveira, 2002, para. 6) that is perceived as deviating from the speaker’s norm, thus used for “specific rhetorical purposes” (Brown 1990, p. 135). In general, this feature will be produced in order to “point up and make particularly important the part of the utterance following the pause” (p.135). Moreover, the author indicates that this feature can also be used to modify the rhythmic structure of the message and create emotions such as suspense.

From the eleven features proposed by Brown (1990) in her taxonomy, this work has mainly concentrated on four of them: rhetorical pause, loudness, timing of segments and tempo. Due to the detailed analysis that was carried out, not all the features in the taxonomy could be analysed. The selection was based on two main factors. First, the PFs

in focus in this study are also the focus of other studies that analyse political discourse (Duez, 1985, 1997; Mc Queen, 2016; Perea Siller, 2017; among others). Second, the selected features can be acoustically measured; a sine qua non to confirm the perceptual analysis and a phase that adds reliability to the results (Brown et al., 2015).

Section 2

II. 2.1 Political discourse as a discourse type

The previous section covered the theoretical foundations that explain the main issue that drives this study: PFs. This section revolves around the concepts of political discourse and genre, in this study characterised through inaugural addresses.

van Dijk (1997) defines political discourse as “a special case of political action, and as a functional or strategic part of the political process” (p. 18). He further describes the nature of political discourse by explaining that this term makes reference to “the text and talk of professional politicians or political institutions, such as presidents and prime ministers and other members of government, parliament or political parties” (p. 12). Apart from focusing on the text producer of such communicative event, van Dijk also concentrates on the various recipients in this particular process of text production and text consumption by indicating that these specific actors have come to be known as “the public, the people, citizens, the masses” (p. 13), among other groups or categories. It could be said that both poles of this linguistic interaction share the same degree of importance, since they are the main (but not the only) participants in political communication.

van Dijk (2001) makes an in-depth characterization of political discourse. First, he states that it is eminently ideological and defines the concept of ideology as “the basis of the social representations of groups (...) namely any kind of socially shared mental

representation” (p. 15). Second, the author restricts the scope of the term “political discourse” to the “professional realm of the activities of politicians” (p. 20) since, as he explains, this type of discourse is a form of institutional discourse, which “must be produced by the speaker in her professional role of a politician and in an institutional setting” (p. 20). Third, the authors characterise this type of discourse in terms of the events and specific political practices. These practices have as its main objective any type of political activity.

When carrying out political discourse analysis, van Dijk (1997) highlights the importance of making reference to the spoken and written modes of language in which political speeches are produced and disseminated. The author also insists on concentrating on discursive practices which “have political functions and implications” (p. 14) and are spread in different forms of text and talk. In this study, the focus will be on the spoken mode of language realised in political speeches, more specifically in presidential inaugural addresses.

II.2.2 The concept of “Genre”

The term “genre” comes from Latin, from the noun *genus*, *generis* (type of something) and from the verb *genre* (to generate). In literary traditions, the construct has been used as a classificatory tool that allows the grouping of texts according to common features. Since the end of the 20th century, genres are conceived as a “powerful, ideologically active, and historically changing shaper of texts, meanings and social actions (Bawarshi & Reiff, 2010, p. 4).

The Russian literary critic and philosopher Mijail Bajtín has defined speech genres as “relatively stable type of utterances [that] each sphere of activity develops” (Bajtín, 2005 [1985, 1979], p. 248). This, Bajtín adds, are “not created by the speaking individuum but given to him” (p. 248). When defining genres, Carranza (2012) seems to

take a similar stance and defines genres as stable configurations “of content, structure and style associated with a particular communicative situation and related to the historical conditions” (p. 97) in which a particular text is produced and circulates. Following Bajtín, Carranza highlights the social nature of genres since they are directly related to conventionalised social events associated with a certain type of activity. By adopting this view of the term, it is the participants and the communicative events in which the verbal exchange is inscribed that are forefronted. Therefore, discursive genres can be considered “conventionalised organizations but highly flexible about medium and formal structures which constitute complex frameworks of reference for communicative practice” (Briggs & Bauman, as cited in Carranza, 2012, p. 99). Within the many characteristics of discourse genres, Carranza highlights the ability that genres have to combine with other genres and produce new hybrids and fused configurations.

According to Bajtín (1985), the study of discourse genres is fundamental since “language enters life through concrete utterances (which manifest language) and life enters language through concrete utterances as well” (p. 251). The author highlights that the importance of studying genres lies in the fact that “the more we dominate discourse genres, the more we will take advantage of them, (...) the higher the level of perfection with which we realize our discursive intention will be” (p. 270).

One of the genres through which political discourse is realised and internationally broadcast and disseminated by the media is in political speeches. That is the genre around which the phonological analysis in this study revolves.

II.2.3 Political Speeches

Alexiyevets (2017) indicates that political communication is characterised by a “strongly pronounced rhetorical nature” (p. 5) and she explains that rhetorical competence “helps speakers convey their views, present them to a wider audience, make contact,

position themselves in a favourable light, [and] convince the audience of the correctness of their views” (p. 5). The author defines political discourse in a broad sense as “a complex form of human activity” (p. 6) which is realized “in a variety of discourse types (or genres), whose discourse organization and textual structure is determined by the respective discursive practices” (p. 6) and indicates that for political communication to take place, some of these “discursive practices operate within the internal domain of policy-making and have politicians as both, text producers and addressees” (p. 6).

Campbell and Jamieson (1990) analyse American political speeches and make specific reference to inaugurals. They define the inaugural as:

a subspecies of the kind of discourse that Aristotle called epideictic, a form of rhetoric that praises or blames on ceremonial occasions, invites the audience to evaluate the speaker’s performance, recalls the past and speculates about the future while focusing on the present. (p. 14)

Weber (2011) analyses the American presidential inaugural address and conceptualizes these speeches “as a sub-genre of political discourse” (p. 57). He also claims that “despite the influence of the historical context, (almost) all inaugural speeches show structural and topical similarities” (p. 22).

The choice of this type of political speeches is grounded on the fact that they lend themselves very well to the kind of analysis we propose for two main reasons. First, the inaugural is a “carefully crafted and strategically designed non-literary text” (Carranza, 2008, p. 27) that employs “a noble, dignified literary style” (Campbell & Jamieson, 1990, p. 14). Also, it is a type of political speech “where the poetic function of the language may prevail” (Carranza, 2008, p. 31) and vocal cues become powerful rhetorical resources that “serve complex political aims” (p. 26). All this turns the presidential inaugural ideal for discourse analysis from a phonetic-phonological perspective.

Chapter II has described the theoretical framework this work draws on to characterize the use of PFs in political speeches more specifically in inaugural addresses. Chapter III, Literature Review, reports research related to the theoretical framework described in the present chapter.

Chapter III

Literature Review

This chapter will be devoted to presenting some of the most relevant studies on political discourse and on the oral expression of “affect” (Scherer, 2005). This term will be used hereafter interchangeably with “emotions”, “intentions” and “attitudes”. Hence, this chapter starts presenting linguistic research on political discourse. The next section is devoted to previous contributions on the oral expression of affect. A third section reports on studies that deal with political discourse from a phonological perspective.

III. 1.1 Recent studies on political discourse

The first group of studies reviewed presents contributions that focus on political discourse from a linguistic perspective. Some of them focus on different genres like televised political debates and presidential debates. Others, like the present study, analyse political speeches.

Randour et al. (2020) conducted a bibliometric analysis of 164 scientific articles on political discourse in order to find out what types of discourse are considered ‘political’ in linguistic research and what form of discourse, actors, genres, policy domains and geographical coverage are touched upon in the studies analysed. The findings reveal that the majority of articles focus on discourses produced by the political elites, mainly monological speeches, as in the present study. Most significantly for this study is the fact that the majority of articles concentrate on oral discourse, but they base the analysis on written transcriptions and not on the oral rendering of the texts. The present study aims to contribute to this domain and to analyse phonological features; that is, features that can only be detected in the audio of the speeches analysed.

Rossette-Crake (2019) provides a detailed description of the characteristics of public speaking. The author analyses the specific communicational set-up that constitutes a public address, and indicates that “public speaking engenders an extremely diverse range of communication practices” (p. 17) which comprise speeches, sermons and TED talks, among others. As regards public speeches, Rossette-Crake indicates that the orator interacts with an audience and that is not achieved through language itself but also “via non-verbal, or paralinguistic means” (p. 105). In fact, she takes a step further by indicating that “93% of meaning perceived by an addressee depends on paralinguistic features (e.g. body language, eye contact and voice), while only 7% of meaning depends on words themselves” (p. 105). Rossette-Crake (2019) points out that “variation serves to maintain the audience’s attention” (p. 112) and states that those variations may involve intensity and speech rate, the latter including the use of pauses. The author also refers to “dramatic pauses”² in public speaking and states that they help create suspense, “add emphasis to what has just been said previously” (p. 114) and work “as a cue for audience response, often in the form of applause” (p. 114).

Al-Hindawi et al. (2017) make a theoretical contribution on the main principles of Rhetorical Pragmatics. The authors analyse and describe the main characteristics of Interpersonal Rhetoric. They also deal with Rhetorical Pragmatic Strategies, types of arguments, figures of speech and tropes when describing some of the most distinctive features of the process of argumentation. The authors state that when logical arguments fail to persuade people, “in many situations, emotion remains the most powerful persuasive factor” (p. 24).

² The term “dramatic pause” is equivalent to the term “rhetorical. Following Brown’s (1990) taxonomy, the latter has been used in this work.

Campbell and Jamieson (1990) study the similarities and differences of several presidential addresses, and they indicate that “critics have taken them to be a distinct rhetorical type, but generalizing about them has been difficult” (p. 14). Among the common characteristics, the authors say that these speeches are delivered “on ceremonial occasions, link past and future in present contemplation” (p. 14) at the moment they are produced. Moreover, the authors indicate that this type of linguistic event unifies the audience, puts emphasis on “communal values” and refers to the principles that will “guide the administration” (p.15).

Carranza (2008) presents a discourse analytical work in which she examines the linguistic forms, rhetorical resources and textual patterns of the inaugural speech by U.S. President George W. Bush. Although this study does not make a phonological analysis of the speech, the characterization of the genre has guided the selection of the inaugural address, a type of political speech, under analysis in the present study. Carranza explains that this kind of presidential speech is part of a ritual carried out every four years and, because of that, it realizes different language functions. The referential function of the language may be predominant at times, while the poetic function may prevail at others. A presidential speech, Carranza adds, is an elaborate, rhythmical and aesthetic text whose form “is always at the service of persuasion” (p. 33). All these characteristics make presidential inaugurals ideal for an analysis that aims at examining the “features of speech which contribute to the expression of attitude by the speaker” (Brown, 1990, p. 112).

In line with Campbell and Jamieson’s (1990) view, Weber (2011) presents a genre analysis of the American presidential inaugural address. In order to find out whether the inaugural address can be considered a genre in itself, a computer-assisted moves analysis of 56 inaugurals was performed. This analysis was carried out on ten selected speeches from different decades. The results of the study reveal that there is a group of obligatory

moves that have remained over the years and that indicate that the inaugural speech can be considered a genre itself. The findings also show that the genre is not static and has changed over time. For example, Weber found that “presidents of the 20th and 21st centuries make more use of rhetorical devices” (p.8). Although the author presents a linguistic analysis of the speeches, what is interesting about this work for the purpose of the present study is that he admits that these rhetorical devices “are usually also especially emphasized when spoken aloud. Thus, pitch, tempo and rhythm also play a major part in their effect” (Beard, 2000, as cited in Weber, 2011, p. 97).

The contributions mentioned above have guided the selection of political speeches as the genre chosen to carry out this study. More specifically, presidential inaugurals, which are public speeches within the realm of political discourse, seem to be ideal for an analysis that revolves around the “features of speech which contribute to the expression of attitude by the speaker” (Brown, 1990, p. 112). First, the elaborate, rhythmical and aesthetic form of inaugurals Carranza (2008) and the profuse use of rhetorical devices emphasized by the manipulation of pitch, tempo and rhythm (Weber, 2011) turn these speeches ideal for the analysis presented here. Second, as reported by Randour et al. (2020), there is a scarcity of studies on political discourse that base their analysis on the oral rendering of texts. This establishes the importance of studying the oral expression of affect in political speeches more specifically in inaugural addresses.

III.1.2 The oral expression of affect

This group of studies is considered key work in relation to the expression of emotion in human speech through the use of PFs. The first group is made up of international studies that focus on the oral expression of emotions from different perspectives. The second group is made up of studies that have been produced locally, in

Argentina. Although most of them focus on narratives, they advance the characterization of oral discourse types and highlight the importance of teaching and learning the oral expression of emotions in EFL contexts. These are key objectives the present study pursues.

Within the first group of studies, Laukka et al. (2005) adopt a dimensional approach to the vocal expression of emotions. In this study, professional actors vocally portrayed different emotions classified as weak and strong. Listeners rated each portrayal on four different emotion dimensions. This study, similarly to the present work, also resorted to acoustic analysis of speech rate, voice intensity, fundamental frequency and spectral energy distribution in order to strengthen the degree of reliability of the findings. The results show that there are distinct patterns of ratings of activation, valence and potency for the different emotions. Moreover, the authors suggest that listeners' ratings could be predicted from the vocal cues for all the dimensions except for valence.

Wichmann (2000) makes a theoretical contribution to the study of affective intonation. She conducted a study on the attitudinal effects of prosody and how they relate to emotion. The author builds on the difference between the terms 'attitude' and 'emotion' and indicates that "intonational feature[s] can be attitudinally neutral, or signal positive and negative attitudes depending on a complex interaction between prosody, text and context" (p. 5).

Another study carried out by Wichmann (2002) explores attitudinal intonation and the role of prosody in conveying affective meaning. The author highlights the complexity that there exists in analysing "ways of speaking" (p. 11) and she argues that "some labels refer not to the affective prosody itself, but to the meanings implied by or inferred from the utterances in a given interactional context" (p. 11). Furthermore, Wichmann highlights the idea that "interpersonal stance" is usually referred to as "attitude" and she

points out that “this difference can be the source of misunderstanding in the interdisciplinary study of emotion and speech”. (p. 11). The author’s concluding remarks indicate that in order to analyse affective meaning in speech, “it is necessary to pay more attention to the distinction between what is directly and explicitly signalled” since inferencing is triggered by a mismatch between the expected and the actual” (p. 13) meanings generated. According to Wichmann, in order to fully understand the role of prosody in relation to speaker meaning, “the search for emotion in the voice should be complemented by the study of ‘normative’ use of prosody” (p. 11).

When focusing on the vocal expression of affect, Juslin and Scherer (2005) in their book chapter on the vocal expression of affect indicate that “vocal expression” refers to “qualities of speech apart from the actual verbal content” (p. 66) and they refer to these aspects of speech as paralinguistic or non-verbal features. Furthermore, the authors highlight the fact that “like the face, the voice may convey discrete emotions such as anger and sadness reliably to a perceiver and it may convey some emotions with cross-cultural accuracy” (p. 66). In this book chapter, different methods to analyse vocal behaviour as a marker of affective processes are presented. Due to the many different terms used to define affective processes, the authors suggest using the term “affect” as an umbrella term since it “subsumes a variety of phenomena such as emotion stress mood interpersonal stance and affective personality traits.” (p. 69).

Within the second group of studies, locally produced, an exploratory study on the interpersonal dimension of language carried out by Bombelli et al. (2013) indicates that “phonology plays an important role not only through intonation but also through other non-verbal features which are closely bound up with intonation and contribute to the affective meaning of oral discourse” (p. 271). They explore the relationship between Martin and White’s (2005) Appraisal Theory and Eggins and Slade’s (1997) categories

in combination with Brown's (1990) taxonomy of PFs in reading aloud narratives. This study shows the different ways in which interpersonal meaning is communicated and points out the close relationship there exists between the use of PFs and the written expression of emotion. The value of the Appraisal Theory and of Brown's taxonomy are highlighted as useful frameworks to study the way speakers express their attitudes and intentions.

A study carried out by Ariztimuño (2016) builds on Bombelli et al. (2013) and explores the association between the written and oral expression of emotion in fairy tales. To achieve that aim, the study bases the analysis on the system of Appraisal-Affect and Graduation (Martin & White, 2005) and on an adaptation of Roach et al.'s (1998) taxonomy. The findings suggest that written and phonetic resources may co-occur to realize different degrees of intensification. Ariztimuño presented an adaptation of Roach et al.'s (1998) framework for the analysis of suprasegmental and PFs of speech to explore and study pitch height, pitch range, loudness, and pitch direction in fairy tales. The results of this study indicate that there exists a clear association between the written realization of the semantics of affect and its phonetic realization. Besides, when referring to the different degrees of intensification, the data gathered suggest the existence of an association between the written and oral intensifying resources. More specifically, the author indicates that the typical phonetic realization of inscribed affect is amplified when affect is intensified verbally by any of the three modes described by Martin and White (2005). In other words, regardless of the mode of intensification selected, "written intensification is realized phonetically" (Ariztimuño, 2016, p. 71). Apart from the findings mentioned above, the pedagogical implications suggested for the teaching and learning of the expression of affect in narratives have been of great value for the present work since they represent a trigger for the study of other genres such as political speeches.

III.1.3 Studies on Political Discourse from a phonological perspective

This last group of contributions reviewed is closely connected with the present study since all the studies focus on the analysis of political discourse from a phonological perspective. Despite the fact that the theoretical frameworks on which the studies are based may be different from the present one and also that the genres analysed are varied, they all advance the characterization of political discourse from a phonological perspective. This is also one of the ultimate objectives of the present study.

Duez (1985) analysed and compared the frequency, duration and distribution of silent pauses in French political speeches, political interviews and casual interviews. The purpose of this study was to specify the relative importance of the duration of silent pauses and of prosodic structures in the perception of silent pauses in continuous speech. The author states that the distributional patterning of pauses has an influence on and is responsible for the variability of perception. Moreover, Duez indicates that listeners tend “not to hear pauses that are not expected, such as within-constituent pauses and pauses accompanied by hesitation” (p.388). Therefore, the author concludes by stating that duration of pauses seems to be the essential parameter of speech pauses since “pause duration interacts with the parameters of the preceding vowel and the influence of these values appears to increase as pause duration decreases” (p. 388).

When further analysing the phonological characteristics of French political speeches, another study carried out by Duez (1997) focuses on articulation rate, silent pauses and non-silent pauses in the speech of the same political leader (François Mitterrand), in different periods of his career. The purpose of this study was to further refine the phonetic description of political speeches and to test the assumption that political power has an effect on speech style, specifically an effect on articulation rate. This study shows, among other results, that when there exists an increase in emotional

tension or stress, pauses tend to be longer, in particular, in communicative contexts which imply the presence of multiple text receivers. The results also reveal that occupying a position of power has an effect on articulation rate of the features previously mentioned. In other words, when François Mitterrand occupied the position of opponent, the articulation rate was more rapid; however, when he occupied the presidential position, the political leader showed a slower articulation rate.

Despite the fact that both studies carried out by Duez analyse samples of speech in French, the results highlight the importance of this feature in political discourse and shed light on the use of pauses by international political leaders when delivering speeches. According to the findings, pauses are exploited for the sake of persuasion in political discourse.

Rosenberg and Hirschberg (2009) carried out a study on charisma perception in written text and speech to analyse how “certain acoustic, prosodic, and lexico-syntactic characteristics” (p. 640) are correlated with perceptions of charisma. Since “charismatic speakers are also perceived as enthusiastic, charming, persuasive, and convincing” (p. 653), the relation between their assertions and the impact they have on the audience is of relevance for the present work. The authors carried out two perception experiments using spoken data. They also transcribed written materials extracted from political speeches of nine candidates running for the Democratic Party’s nomination for president. They aimed at exploring subjects’ judgements in terms of charisma perception in political interviews, political debates, stump speeches and campaign ads. The authors conclude by indicating that, despite the differences among speech and text, “a number of acoustic prosodic properties were also highly correlated with charisma” (p. 653) and state that the use of personal pronouns, a faster speaking rate, a higher pitch range” (p. 653) are “all aspects

of speech commonly associated with a more engaged and lively style of speech and all predicting higher ratings in charisma” (p. 653).

Carrocio (2010) carried out a study on the analysis of different types of pauses in political speeches delivered by José Mujica and Luis Alberto Lacalle. The author carried out acoustic analysis of pauses “since they help the interlocutor prepare for the next part of the message” (p. 3). Moreover, she states that “silent pauses have a communicative intention” (p. 3) and indicates that the use of pauses by political leaders is more significant since these speeches are carefully prepared by the orators who have a political aim in mind. The author concludes that silent pauses have not only a communicative function, but a rhetorical one since they help “organize discursive structure” (p. 28) and are also used to “highlight certain aspects of speech, give emphasis to the assertions and generate expectation among the listeners” (p. 28).

Rodero et al. (2014) studied the influence of prosodic elements (such as loudness, intonation and speech rate) on listeners’ perceptions when evaluating politicians’ credibility. The authors analyse three speeches delivered in English by Ana Botella, Ali Babacan and Naoki Inose while representing their countries in the International Olympic Committee Session in Argentina. They conduct prosodic and rhetorical analysis, and a test to “measure the perception of credibility” (p. 94) on the part of the listeners. The results of this study indicate that “the more fluent and consistent the prosody parameters are, the more credible the speaker is perceived” (p. 106) by the listeners.

A study carried out by Freeman (2014) analyses the expression of stance in an episode of a televised political talk show by measuring speech rate and duration of phrases, pitch and vowel space expansions of stressed vowels in phrases. The author states hyperarticulation is used by speakers “to signal their stances about concepts they are discussing” (p. 1) and explains that “hyperarticulation interacts with the discourse

function of signalling new information” (p. 1). Freeman (2014) proposes that “by using hyperarticulation to convey their stances, speakers override the discourse convention of reducing the pronunciation of given information” (p. 1). The author’s concluding remarks indicate that speech rate “demonstrated that new information was hyperarticulated compared to given information” (p. 12). Moreover, she indicates that “speech rate and stressed vowel duration showed that speakers hyperarticulated words and phrases about which they express stances (stance tokens) when compared to neutral phrases (control tokens)” (p. 12).

Another study on the use of pauses in the presidential speeches of Barack Obama and George W. Bush was carried by Brus (2015). The author analyses whether the use of filled and unfilled pauses can be regarded as conversational and rhetorical devices, and investigates whether being a good speaker correlates with the use of these types of pauses. The results indicate that George W. Bush makes greater use of unfilled pauses, but fewer filled pauses, than Barack Obama. Brus explains that whereas popular media at that time insinuated that Obama was a more proficient speaker than Bush, this study confirmed the opposite. This may indicate “there is more to speaking than to apply the pauses right” (2015, p. 26).

By resorting to Brazil’s (1997) and Brazil, Coulthard and Johns’ (1980) Discourse Intonation Model for the study of prosody and to Martin’s (1995, 2000) and Martin and White’s (2005) Appraisal Model for the study of evaluation and attitudinal meaning, Mc Queen (2016) explores the intonation of appraised items in Obama’s 2011 presidential speech. The results show that spoken political discourse makes strategic use of prosodic features to persuade and manipulate the audience. The author puts forward the idea that “manipulation has often been described at the lexico-grammatical and semantic level, leaving aside the phonological one” (Mc Queen, 2016, p. 99). The results reveal that the

manipulation of prosody, in combination with evaluative language, produces a greater rhetorical force. It is of great importance to acknowledge Mc Queen's (2016) work as a source of inspiration for this thesis. Not only does the study revolve around political speech, but it also contributes towards a more in-depth characterization of political discourse from a phonological perspective.

Perea Siller (2017) analysed the management of pauses and speed of delivery of four Spanish political leaders in a political debate. The author indicates that debates are "characterized by a formal register" and display "complex structuring and planning" (p. 151). The findings reveal that instances of slow tempo give the idea of self-confidence on the part of the speakers. Besides, slow tempo is used as a tool to make important information prominent, while fast tempo, to introduce marginal comments. The results show that the use of silent pauses also seems to be strategic. As they break discourse into a greater number of tone units, multiple prosodic foci are created, and more information is highlighted. The results of this study suggest that political discourse can be a tool "for the analysis of pauses and speech rate" (p. 154). Despite the fact that this study analyses the use of pauses and tempo in political discourse in a language other than English, this contribution has guided the selection of the PFs analysed in the present study.

The research described in this chapter relates to political discourse and/or to the oral expression of emotion. As evidenced by these contributions, the present study occupies an empty space in the literature. To our knowledge, there is no study that analyses the use PFs, following Brown's (1990) taxonomy, in inaugural addresses in English as a medium to obtain a more in-depth characterization of political discourse.

Chapter IV

Methodology

This chapter describes the research design of this study. Therefore, it includes the materials used, the phases in which it was divided, and the logic underlying the classification of the data as well as the corpus selection. All this allowed the analysis of the samples not only qualitatively, but also quantitatively.

IV.1 Research Design

To gain a better understanding of the research problem, the present work adopts a mixed methods research design (Creswell, 2012; Paltridge & Starfield, 2007), specifically an exploratory sequential design. Therefore, it calls for the use of qualitative and quantitative methods to answer the research questions in focus. According to Creswell (2012), the purpose of an “exploratory sequential mixed methods design involves the procedure of first gathering qualitative data to explore a phenomenon, and then collecting quantitative data to explain relationships found in the qualitative data” (p. 543). One of the key characteristics of this type of design is that “the researcher presents the study in two phases with the first phase involving the qualitative data collection” which is followed by “quantitative data to build on or explain the initial qualitative findings” (pp. 544-545).

IV.1.1 Qualitative Phase:

The PFs in focus (rhetorical pause, loudness, tempo and timing of segments) were perceptually identified drawing on Brown’s taxonomy (1990). To corroborate the

perceptual identification of these features, acoustic numerical measures were obtained. Next, came a situated interpretation of the emotions the speakers were believed to have conveyed through the use of the vocal cues in focus.

IV. 1.2 Quantitative Phase:

A quantitative approach was followed through the use of descriptive statistics (Creswell, 2012). This allowed the identification of the frequency of occurrence of the PFs in the corpus analysed, as well as the frequency with which the PFs in focus are associated to certain emotions, intentions or attitudes.

IV.2 Materials – Corpus Selection and Obtention

The selection of the corpus was carried out taking into consideration certain parameters. First, the sampling frame, i.e. the group of samples “with some common defining characteristic that the researcher can identify and study” (Creswell, 2012, p. 142), limited the corpus to political discourse. Within political discourse, political speeches, more specifically the inaugural address is of special interest since it is a genre in which “the poetic function of language may prevail” (Carranza, 2008, p. 31) and this is orally realized through the interplay of different rhetorical resources. One of them is the use of PFs.

Free online access inaugural speeches of two different political leaders were downloaded from <https://www.youtube.com>. The interlocutors delivering the speeches are the ex-Prime Minister of the United Kingdom, Theresa May, and ex-President of the U.S, Barack Hussein Obama. The selection of the samples was also carried out with a set of defining characteristics in mind. First, the speeches of Theresa May and Barack Obama were chosen for being these persons globally known and public figures in the field of

contemporary international politics. Second, for the sake of adding variety to the corpus analysed, the speech of a woman and of a man were selected. Besides, through the selection of these two speeches, the most traditional varieties of English as an L1 are covered: British and American English³. Finally, these speeches were selected on the basis of the apparent presence of PFs in the speech of presidential leaders.

A detail worth mentioning is that the length in minutes of the speeches differs significantly; while Obama's speech is 18:20 minutes long, May's is 4:21 minutes long. However, duration was not a selection criterion since interspeaker comparisons go beyond the scope of this study. Rather, this work aims to contribute to the characterization of political speeches as a whole in relation to the use of PFs.

Brown defines PFs as phenomena "which can be heard over the radio, telephone or tape recorder and they fall squarely within the province of a discussion of 'listening' to spoken English" (1990, p. 113). Following that definition, the analysis was carried out on the basis of the audio material that was extracted from the videos. The files were converted to WAV format to be later used with PRAAT (Boersma & Weenink, 2021) for the acoustic analysis. Finally, the texts were transcribed orthographically in order to annotate the information obtained through the perceptual analysis.

IV.3 Data Collection Procedures

The data collection followed a mixed methods research approach. The qualitative phase consisted of three different steps. The first one was the perceptual identification of the PFs in focus (rhetorical pause, tempo, loudness and timing of segments). Next, there came the collection of acoustic measurements of amplitude and duration to confirm the

³Despite the fact that comparison between the speakers goes beyond the scope of this work, the results may be the stepping stone for further analysis that aims at such comparison.

perceptual analysis. The third step consisted in the situated interpretation of the emotions the PFs were thought to convey. A second quantitative phase was performed to calculate the frequency of occurrence of the PFs in the corpus analysed and of the emotions these seemed to convey, as well as the frequency with which the PFs in focus were associated with certain emotions.

IV. 3.1 Qualitative Phase

IV. 3.1.1 Perceptual Analysis. Within the qualitative phase of the study, the perceptual analysis preceded the collection of acoustic measurements. The perceptual identification of the PFs in focus was the first step since getting first “a true picture of the way in which the speakers hear and understand (evaluate) their own language” (Danes, 1960, as cited in Brown et al, 2015, p. 48) is of paramount importance when analysing discourse, especially in the political arena in which the speakers frequently “aim at calling up emotions to support political initiatives” (Carranza, 2008, p. 30). Besides, as stated by Cruttenden (2014), the value of doing perceptual analysis lies in the fact that “our linguistic sense interprets from the acoustic material only that which is significant” (p. 24).

The perceptual identification of the features in focus was carried out by the researcher and another professional phonetician, who has also been part of Phonetics and Phonology II chair for a considerable period of time, hence familiar with Brown’s taxonomy (1990). The two analysts worked independently, listening and annotating the paralinguistic phenomena in focus (Brown et al., 2015). The analysts could listen to the speeches as many times as necessary so as to achieve a detailed identification of the PFs under analysis.

It is worth noting that, when perceptually analysing both samples, the trained phoneticians also detected instances of other PFs (such as breathiness, precise articulatory

setting and tense articulatory setting) which were not included within the features in focus in this study. One of the reasons for this decision, as it has already been stated, lies in the difficulty of acoustically measuring them by means of PRAAT (Boersma & Weenink, 2021).

Before carrying out the perceptual analysis, the trained phoneticians agreed upon certain criteria for the perceptual identification of the PFs in focus. These criteria were mainly based on the definition provided by Brown (1990).

Rhetorical pause: A period of vocal inactivity of a certain duration embedded in the stream of speech (Oliveira, 2002) that is perceived as deviating from the speaker's norm. What is more, Brown (1990) indicates that sometimes "speakers exploit pause not simply to indicate normal planning routines but for specific rhetorical purposes, in general to point up and make particularly important the part of the utterance following the pause" (p. 135).

Loudness: The "attribute of auditory sensation that corresponds most closely to the physical measure of sound intensity" (Plack & Carlyon, 1995, p. 124). Brown (1990) states that if a speaker is "speaking in public he/she will speak more loudly than if he is speaking privately" (p. 126). Moreover, the author explains that "to some extent each individual will vary the loudness of his speech with the situation in which he finds himself" (p. 126). Instances of loudness were classified perceptually as loud speech or soft speech.

Timing of segments: The duration of individual speech sounds. Brown states that it is possible "for a speaker to extend a segment or syllable, to lengthen it, for stylistic purposes, to lay special weight on a given word" (1990, p. 131). Instances of timing of segments were classified perceptually as extended or clipped.

Tempo: The average rate of speech. Brown (1990 pp. 124-125) states that, in general, whereas instances of fast tempo "may be associated with urgency", instances of

slow tempo may indicate that “a speaker may speak slowly simply because he is thinking very carefully about what he is saying”. The author also explains that public figures, like the ones analysed in this study, “speak slowly, well down in the voice range, with lots of stressed words, long-drawn-out tonic syllables and significant pauses” (p. 125). Instances of tempo were classified perceptually as fast or slow.

It is worth pointing out that a system for the annotation of the PFs analysed was devised for the purpose of this study. This notation system was adapted from that in Roach (2000). Despite the fact that the analysts had to get familiar with it, the system gave several advantages along the study. First, it allowed unambiguous coding of the PFs in focus by the two professional phoneticians. Second, the analyses they produced could be easily compared. Finally, the coding system eased the storage, retrieval and interpretation of the information detected through the perceptual analysis. Table 4.1 presents the coding system used for the perceptual identification of the PFs analysed.

Table 4.1

Coding System used for the Perceptual Identification of the PFs Analysed

RHETORICAL PAUSE	
/EACH T<I>ME we GATHER to iNAUGurate a PRESident //+1.67//we bear WITness/	
LOUDNESS	
Loudness != THAT =! spirit that I also plan to lead	Softness =every one of us=
TIMING OF SEGMENTS	
Extended en<dowed>	Clipped > <
TEMPO	
Fast [Through blood drawn by lash and blood drawn by sword we learned that no union founded on the principles of liberty and equality]	Slow ^great national change^

The annotated scripts that derived from the analyses of the two analysts working independently were then compared and, when differences arose, “an attempt to reach an agreed solution was made” (Brown et al., 2015, p. 49). Agreement was reached in most

cases and differences were discussed and settled. The agreed versions of the perceptual analyses in the two speeches are presented in Appendix E.

IV. 3.1.2 Acoustic Analysis. To further validate the qualitative phase of the study, the existence of the PFs identified perceptually was confirmed through acoustic measures using PRAAT (Boersma & Weenink, 2021), a free computer software package for speech analysis. The acoustic analysis followed the perceptual analysis as a complementary tool since “listeners’ judgements play a key role in the identification of relevant vocal cues for the identification of emotions” (Ariztimuño, 2016, p. 43) and the human auditory organs detect only what is considered to be relevant from the acoustic information received. In case of incongruities between the perceptual analysis and the software’s analysis, the perceived occurrences of the PFs under study were discarded. It is worth pointing out that there was a high degree of agreement between both analyses (95%).

As already mentioned, the PFs in focus were the rhetorical pause, loudness, timing of segments and tempo. These were measured in terms of the following phonetic features:

Rhetorical pause: The periods of vocal inactivity (silent pauses) perceived through the perceptual analysis were measured considering the acoustic correlate of duration, expressed in seconds (s). As stated in the Theoretical Framework of this work (Chapter II), there are differing views in relation to what a pause is and to its duration (Brown, 1990; Brus, 2015; Carrocio, 2010; Hieke, 1983). This work is in line with Hieke’s (1983) view which states that “brief pauses (0.13-0.25) can be systematically related to psychological and textual factors” (p. 203). Consequently, 0.10 seconds will be considered the cut-off point when setting the limits between what can be considered a physiological pause (uncommunicative pause), or a rhetorical pause (silent, communicative pause).

Loudness: It was measured considering its acoustic correlate, intensity, which, in turn, is dependent on the amplitude of the sound wave, expressed in decibels (dB) (Cruttenden, 2014). Loudness was measured considering the surrounding discourse. If the tone unit in which the occurrence of loudness was more than a syllable longer, the tone unit boundaries were used as the limits for the audio selection. Otherwise, the audio selection included the preceding and/or following tone units. PRAAT (Boersma & Weenink, 2021) was used to measure the mean intensity of the selection in dB. That was compared to the intensity on the vowel sound of the syllable that was uttered with greater or lesser intensity. If the occurrence of loudness was perceived on more than one syllable, the mean intensity in dB of the selection was compared to the mean intensity of the preceding or following tone unit.

Ladefoged (2003) states that “a change in intensity of one dB corresponds to the smallest change in loudness that can be heard, and a change of five dB corresponds to doubling the loudness” (p. 90). On this basis, a change in intensity of more than 1.5 dB was considered an occurrence of loudness in this analysis.

Tempo: This feature was measured considering duration, expressed in seconds (s). It was acoustically detected considering the syllables uttered per second (sps) by the different speakers. For that purpose, the benchmarks for speed of speech for different speech styles, such as lectures, conversations and interviews, proposed by Cauldwell (2013) were considered: Slow 2.0 sps, Average 4.0 sps, and Fast 5.3 sps. The speaking rate of the stretch perceived to be uttered with fast or slow tempo was calculated, and compared with the benchmarks proposed by Cauldwell (2013). It is worth pointing out that the limits of the stretches analysed were not necessarily coincident with tone unit boundaries.

Timing of segments: This feature was measured considering the acoustic correlate of duration, expressed in seconds (s). In this case, the duration of the segments was calculated relative to that of other sounds with similar phonetic characteristics and inserted in similar phonetic environments (Ladefoged, 2003). As to the segmentation of speech, it is worth pointing out that it could be approximated since “there is no precise boundary in the signal that corresponds to the sounds of speech as perceived by the listener (...), since speech is the result of a continuous articulatory gesture” (Martin, 2021, p. 106).

The acoustic measurements obtained were saved as PRAAT (Boersma & Weenink, 2021) text grids. Figures 4.1 and 4.2 illustrate the resulting image of the acoustic analysis (See Supplementary material on CD/data traveller for a full account of the analysis).

Figure 4.1

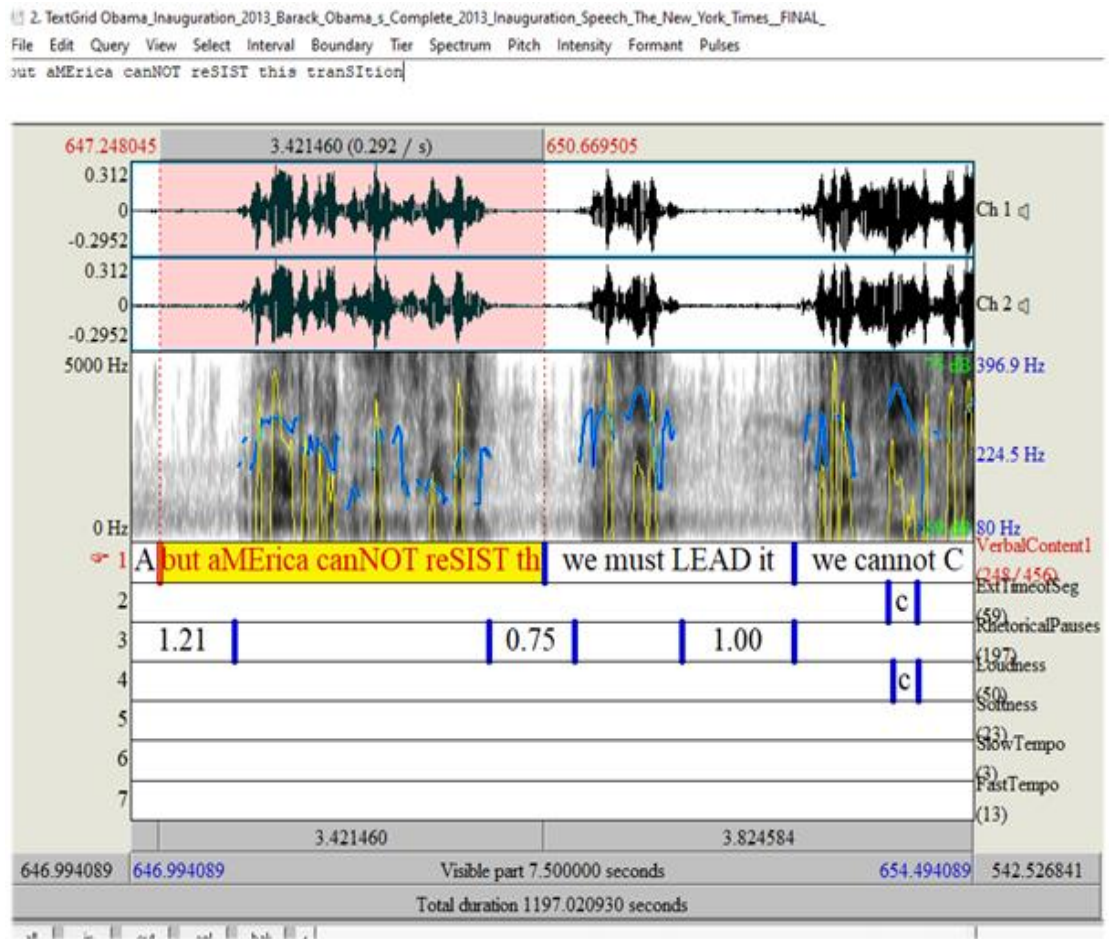
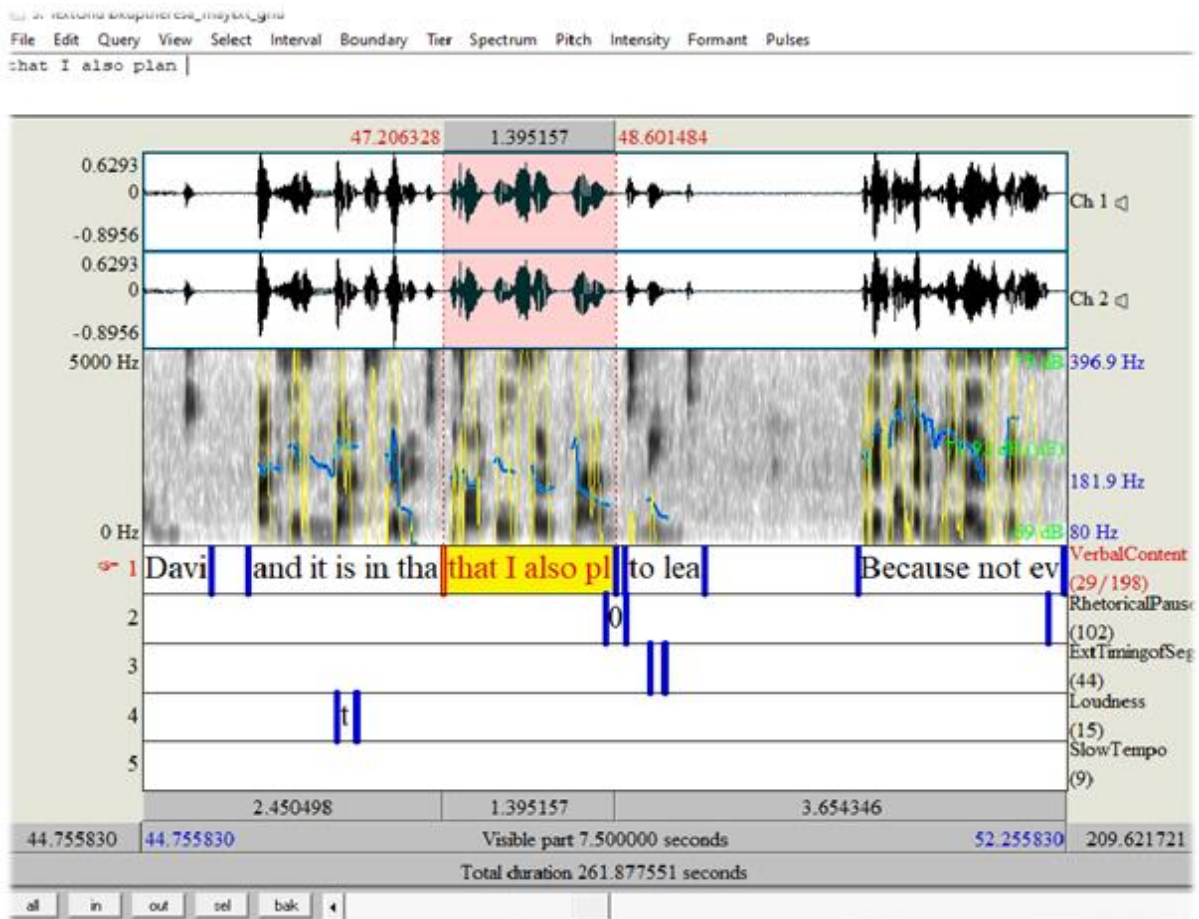
PRAAT Image of Acoustic Analysis in Obama's Inaugural Address

Figure 4.2

PRAAT Image of Acoustic Analysis in May's Inaugural Address



This information was then incorporated in an Excel sheet to later proceed with the quantitative phase of the study (See Appendix F).

IV. 3.1.3 Situated Interpretation of Emotions. After the detection of the PFs through the perceptual analysis and the confirmation of their presence through the acoustic measures, the trained analysts proceeded to make a situated interpretation of the emotions the speakers are believed to have conveyed through the use of those vocal cues.

IV. 3.1.3.1 Categorizing Emotion Terms. In this subsection, we describe the process undergone to label emotions in this study. In order to obtain a rich categorization

of affect and not to influence the analysts' perception, a combination of free-description and forced-choice response formats was used for the categorization of affect (Juslin & Scherer, 2005, p. 112). First, the shortest speech, May's, was analysed freely, i.e. "describing the stimulus using any words that come to mind" (p. 112). From this phase of the analysis, a wide variety of verbal terms (such as togetherness, nationalism, unity, empathy, etc) arose, some of which "referring to *genuinely* different states" (p. 93) and others, making reference to similar ones. Consequently, joint effort between the researcher and the external analyst was needed to come to an agreement and find common labels. This, in turn, led to a reduction of emotion labels, which aimed at simplifying the analysis without obscuring important differences between affective states due to the 'fuzziness' in the relationship between emotions and emotion words" (p. 94).

For the analysis of Obama's inaugural speech both the researcher and the external analyst worked with a reduced number of emotion labels but also had the freedom to add any other labels if it was absolutely necessary. Four more labels (sadness, gratitude, dislike and fear) for emotions were incorporated. Table 4.2 presents the classification of emotions, and their corresponding definition, used in this study. It is worth noting that the definitions were elaborated on the basis of different sources: Cambridge Dictionary, Oxford's Learners Dictionary, Thesaurus Dictionary and Macmillan Dictionary.

Table 4.2*Classification of Affect and their Corresponding Definition*

1. Belongingness: the state or feeling of belonging to a particular group. A feeling of close or intimate relationship. A sense of belonging. Possible synonyms: closeness, familiarity, inseparability, intimacy, nearness.

2. Assurance: the state of being certain in the mind. Confidence of mind or manner: easy freedom from self-doubt or uncertainty, something that inspires or tends to inspire confidence. Possible synonyms: assuredness, certainty, certitude, confidence, conviction, doubtlessness, sureness.

3. Uncertainty: the quality or state of being uncertain or in doubt. Possible synonyms: distrust, distrustfulness, doubt, dubiety, incertitude, misdoubt, mistrust, mistrustfulness, skepticism, suspicion.

4. Sadness: affected with or expressive of grief or unhappiness, causing or associated with grief or unhappiness.

5. Anger: a strong feeling of displeasure and usually of antagonism.

6. Gratitude: the state of being grateful or thankful for something.

7. Admiration: a feeling of respect and approval, an object of esteem.

8. Enthusiasm: strong excitement of feeling, a feeling of energetic interest in a particular subject or activity and an eagerness to be involved in it.

9. Sympathy: an affinity, association, or relationship between persons or things where in whatever affects one similarly affects the other. A feeling or expression of understanding and caring for someone else who is suffering or has problems that have caused unhappiness.

10. Desire: to long or hope for something. To exhibit or feel desire for something, to express a wish for conscious impulse toward something that promises enjoyment or satisfaction in its attainment. Possible synonyms: ache (for), covet, crave.

11. Dislike: to not like someone or something. A feeling of aversion or disapproval.

12. Fear: an unpleasant emotion or thought that a person has when he/she is frightened or worried by something dangerous, painful, or bad that is happening or might happen. An unpleasant often strong emotion caused by anticipation or awareness of danger.

Although the focus of attention was not placed on the verbal content and the context surrounding the utterances under analysis, these aspects were considered since they helped reflect the social and historical agenda at the time these speeches were delivered; therefore, linguistic and contextual clues represented a hint for the researcher to classify the emotions.

In order to work with and extract the raw data derived from the analyses, a database was designed (Creswell, 2012) in order to transfer the information obtained for the perceptual analysis, from the acoustic measurements done with PRAAT (Boersma & Weenink, 2021), and from the situated interpretation of emotions. All the information obtained was gathered on an Excel sheet. That instrument was later used to carry out the quantitative phase of the study (see Appendix E).

IV. 3.2 Quantitative Phase

This work presents a quantitative phase that aims at complementing the data obtained through qualitative data collection procedures. Descriptive statistics were used in order to see “overall trends or tendencies” (Creswell, 2012, p. 183). Frequencies of occurrence of the PFs analysed and of the emotions found in the samples were calculated. To prepare the data to calculate these frequencies, the PFs in focus and the emotions the analysts identified were given a “nominal score” (Creswell, 2012, p. 114). Tables 4.3 and 4.4 present the data as they were organised.

Table 4.3*Nominal Scores for the PFs Analysed*

Paralinguistic Features		Nominal scores
Rhetorical pause		1
Timing of segments	Extended	2
	Clipped	3
Loudness	Loudness	4
	Softness	5
Tempo	Fast	6
	Slow	7

Table 4.4*Nominal Scores for the Emotions Analysed*

Emotions	Nominal scores
Belongingness	1
Assurance	2
Uncertainty	3
Sadness	4
Anger	5
Gratitude	6
Admiration	7
Enthusiasm	8
Sympathy	9
Desire	10
Dislike	11
Fear	12

IV. 3.3 Data Analysis Procedures

The data obtained through qualitative procedures were used to do textual analysis and to make a situated interpretation of the emotions detected in the samples. These data also served as input for the quantitative analysis.

Different steps can be identified within the quantitative phase. First, the frequency of occurrence of each of the PFs analysed was obtained. Those numbers were turned into percentages. Next, the frequency of occurrence of the different emotions, attitudes and intentions was calculated and also turned into percentages. Finally, associations between the PFs in focus in this study and the attitudes, emotions or intentions that are believed the speakers tried to convey could be established.

This chapter presented the research design adopted for this work, the data collection procedures, the different phases in which this study is divided and the categorization of affect associated with the study of “vocal affect expression” (Juslin & Scherer, 2005, p. 93). A mixed-methods design was adopted to strengthen the degree of reliability of this study.

Chapter V presents the results obtained from the perceptual and acoustic analysis of the PFs in focus (rhetorical pause, loudness, tempo, and timing of segments) and the association between these features and affect.

Chapter V

Results

This chapter presents the results gathered after carrying out the analysis of the data following a mixed methods approach. The results obtained in this study are discussed in this chapter in relation to two of the research questions which are the main triggers in this study: RQ1- Of the PFs under study, which are the most frequently used in the political speeches analysed? and RQ2- What possible relationships there exist between the PFs analysed and the types of emotions when these political leaders deliver their speeches?

The findings in this chapter will be sequentially presented, following the order in which the data were gathered. Section 1 presents the results in relation to RQ1 and Section 2 deals with the results connected with RQ2.

It is worth noting that the discussion will focus on the data obtained from both the perceptual analysis and the acoustic measures. The former analysis, carried out by trained phoneticians, lies at the heart of this study since, as stated in Chapter IV (Methodology), this work gives special importance to the way “speakers hear and understand (evaluate) their own language” (Danes, 1960, as cited in Brown et al., 2015, p. 48). As mentioned in the previous chapter, apart from the auditory analysis, the acoustic analysis by means of PRAAT (Boersma & Weenink, 2021) aimed at enhancing the reliability of the results of this study since it was used to confirm and, eventually, discard perceived occurrences of the PFs in focus.

Section 1

This section presents the results in relation to RQ1: Of the PFs under study, which are the most frequently used in the political speeches analysed?

V. 1 The Most Frequently Used PFs

Tables 5.1, 5.2, and 5.3 display the frequency of occurrence of the PFs under study in the samples analysed⁴. As seen in Table 5.1, the four PFs analysed were detected in May's inaugural and later confirmed with PRAAT (Boersma & Weenink, 2021). The most frequent PF in this sample is, by far, the rhetorical pause (72.13%), followed by extended timing of segments (19.62%), loud speech (loudness) (4.91%) and, finally, slow tempo (3.27%). However, within the last three PFs mentioned, just one end of the three continuums was detected (extended timing of segments, loud speech and slow tempo). No instances of clipped segments (timing of segments), soft speech (loudness) or fast tempo were identified.

⁴ As previously mentioned in Chapter IV (Methodology), the length in minutes of the speeches differs significantly. While Obama's speech is 18:20 minutes long, May's speech is 4:21 minutes long.

Table 5.1*May's Speech - Frequency of Occurrence of the PFs*

	Rhetorical pause	Timing of segments		Loudness		Tempo		Total
		Clipped	Extended	Loud speech	Soft speech	Slow	Fast	
Frequency of occurrence	44	0	12	3	0	2	0	61
Relative frequency of occurrence	72.13	0	19.62	4.91	0	3.27	0	100%

Table 5.2 presents the frequency of occurrence of the PFs analysed in Obama's inaugural. As in May's speech, the presence of the four features was detected and later confirmed with PRAAT (Boersma & Weenink, 2021). In this sample, Obama's most frequently exploited PF is the rhetorical pause, with a roughly similar relative frequency of occurrence to May's (Obama: 77.69% - May: 72.13%). However, in this sample, loud speech (loudness) is the second most frequently used PF (11.57%), followed by extended timing of segments (6.61%) and, then, fast tempo (2.48%). In this sample, as in May's, there are very few instances of soft speech (loudness) and slow tempo (0.83%). No occurrences of clipped segments (timing of segments) were found.

Table 5.2*Obama's Speech - Frequency of Occurrence of the PFs*

	Rhetorical pause	Timing of segments		Loudness		Tempo		Total
		Clipped Extended		Loud speech	Soft speech	Slow	Fast	
Frequency of occurrence	94	0	8	14	1	1	3	121
Relative frequency of occurrence	77.69	0	6.61	11.57	0.83	0.83	2.48	100%

As already stated, a comparison of the results obtained from the analysis of each sample goes beyond the scope of this study. Instead, this study intends to characterise political speeches from a phonological perspective through the analysis of inaugural addresses. To achieve that aim, it is of paramount importance to present the results altogether. Table 5.3 displays the frequency of occurrence of the PFs analysed in both speeches, May's and Obama's. To see the results of the analyses of both speeches together allows to find tendencies. These will be discussed in detail in Chapter VI (Discussion).

The results indicate that 182 PFs have been detected and measured acoustically in the corpus of this study. As seen in both samples separately, the rhetorical pause is the PF par excellence (75.82%). The rest of the PFs analysed follow similar tendencies to those displayed in May's speech. That is, the second most frequently used PF is timing of segments, at the extended end of the continuum (10.99%), followed by loud speech (loudness) (9.34%) and, finally, slow tempo (1.65%).

Table 5.3

Frequency of Occurrence of the PFs in May's and Obama's Speeches

	Rhetorical pause	Timing of segments		Loudness		Tempo		Total
		Clipped	Extended	Loud speech	Soft speech	Slow	Fast	
Frequency of occurrence	138	0	20	17	1	3	3	182
Relative frequency of occurrence	75.82	0	10.99	9.34	0.55	1.65	1.65	100%

It is worth noting that no occurrences of clipped timing of segments and very few instances of soft speech (loudness), slow and fast tempo were detected in the corpus. These frequencies of occurrence in the inaugural addresses analysed seem to be conducive to the conclusion that clipped timing of segments, soft speech (loudness), slow tempo and fast tempo may not be typical in political speeches. However, due to the small size of the corpus, further research is needed to shed light on this.

The frequencies of occurrence of rhetorical pauses (75.82%), extended timing of segments (10.99%) and loud speech (loudness) (9.34%) seem to indicate that these features are typical of political speeches, the rhetorical pause being the most widely used of the three. Nonetheless, more samples should be analysed to confirm this preliminary finding.

V.1.1 Rhetorical Pauses, Timing of Segments and Loudness illustrated

As stated before, both interlocutors seem to make a profuse use of rhetorical pauses, generally and strategically produced before an upcoming important idea (Brown, 1990; Carrocio, 2010; Duez, 1985; Oliveira, 2002; Brus, 2015; Perea Siller, 2017). Examples (a) and (b) illustrate the strategic use of rhetorical pauses by both interlocutors

signaled through the use of the + symbol and the length of the pause -expressed in seconds- in bold face:

- (a) Theresa May: // where her MAjesty the QUEEN // has ASKED me to FORM
a NEW GOvernment // + **0.64** // and I acCEPted //
- (b) Barack Obama: // what MAKES us exCEPtional // + **1.77**//what MAKES us
aMERican //

Considering the length of the rhetorical pauses (in bold face) in these examples, both interlocutors have produced considerably (silent) long pauses⁵ in order to highlight key words and/or important ideas coming after the pause.

The second most frequently exploited PF in the presidential inaugurals analysed is timing of segments, more specifically, occurrences of extended timing of segments. It is worth pointing out that all the occurrences of this PF, signaled through the use of < > in bold face, have been detected in vocalic segments.

- (c) Theresa May: // as we L<**EA**>VE the euroPEAN Union/ we will FORGE/
FORGE a B!**=<O>=!**LD NEW POSitive ROLE for ourSELVES //
- (d) Barack Obama: // but aMErica cannot reSIST this tranSItion //+**0.75**// we must
LEAD it //+**1.00** // we CANnot!**=<CEDE>=!** it to Other Nations//

Examples (c) and (d) show how the lengthening of the vocalic segments “lay[s] special weight” (Brown, 1990, p. 131) on the words in which the PF is produced. As Brown points out, the use of extended timing of segments “has an intensificatory function” (p. 131).

⁵ 0.10 seconds is the cut-off point that has been set in this study to distinguish a physiological pause (uncommunicative pause) from a Rhetorical Pause (silent, communicative pause) (Hieke, 1983). See Chapter IV (Methodology).

Examples (c) and (d) also illustrate that, as Brown (1990) indicates, PFs can be combined. In these examples, loud speech (loudness), the third most frequently used PFs in the samples analysed, combines with extended timing of segments to add greater rhetorical force to the content of the verbal message (the use of != != signals instances of loud speech [loudness]).

Finally, considering the frequency of occurrence of the PFs analysed, the third most frequently used is loudness, at the loud end of the continuum. Examples (e) and (f) illustrate how both leaders produce words with greater intensity and, soon after that, make use of rhetorical pauses. This combination seems to enhance the meaning potential of the utterances produced by the interlocutors. It is worth mentioning that, in both examples (e and f), loud speech seems to convey a feeling of belongingness. This will be further discussed in relation to RQ2.

(e) Theresa May: // David CAmeron has LED a ONE-Nation GOvernment// and
it is in TH!=A=!T SPIrit // that I ALso PLAN//+0.16// to LEAD//

(f) Barack Obama: // to make THESE words //+0.15// TH!=E=!SE RIGHTS//
THESE VALUES //+0.80//

In brief, Section 1 has presented all the results that address RQ1. The data reveal that, in the speeches analysed, the rhetorical pause is, by far, the most frequently exploited PF. This preliminary finding may be indicative of the predominance of this feature in political speeches. Future research in which various kinds of speeches by different political leaders analysed could shed more light on the use of this feature and could constitute more evidence to confirm this preliminary finding.

The next section presents the results in relation to RQ2. In other words, the next section will explore the relationships found between the PFs analyzed and the types of emotions both interlocutors seem to have conveyed while delivering their speeches.

Section 2

This section presents the results in relation to RQ2:

What possible relationships there exist between the PFs analysed and the types of emotions, intentions and attitudes when these political leaders deliver their speeches?

V.2 PFs and the Expression of Affect

RQ2 aims at delving into the relationships between the PFs analyzed and the expression of “affect” (Juslin & Scherer 2005, p. 69). To answer this question, each PF was associated to a set of categories of emotions (see Chapter IV, Section 3.1.3.1).

Table 5.4 summarizes the results of the situated interpretation of the emotions the analysts perceive Theresa May tried to convey when producing the PFs in focus. The highest percentage has been found in relation to the rhetorical pause as a device to express belongingness (22.95%), it has also been used, with a relatively similar frequency, to express assurance (19.67%) and, with lower percentages, to convey sympathy (14.76%), admiration (6.55%), uncertainty (3.27%), enthusiasm (3.27%) and anger (1.63%). The percentages displayed mainly for extended timing of segments, but also for slow tempo present a similar panorama. The results seem to indicate that, in this sample, the PF analysed have been used to express more than one emotion.

Table 5.4*May's Speech - PFs and the Expression of Affect*

PFs ↓	Emotions →	1	2	3	4	5	6	7	8	9	10	11	12	Total
Rhetorical pause		14	12	2		1		4	2	9				44
		22.95	19.67	3.27		1.63		6.55	3.27	14.76				72.13%
Timing of segments	Extended	5	1			1			1	3	1			12
	Clipped	8.19	1.63			1.63			1.63	4.91	1.63			19.62%
Loudness	Loud speech		3											3
	Soft speech		4.91											4.91%
Tempo	Slow	1							1					2
	Fast	1.63							1.63					3.26%
Total		20	16	2		2		4	4	12	1			61
		32.78	26.22	3.27		3.27		6.55	6.55	19.67	1.63			100%

Note. 1=belongingness; 2=assurance; 3=uncertainty; 4=sadness; 5=anger; 6=gratitude; 7= admiration; 8=enthusiasm; 9=sympathy; 10=desire; 11=dislike; 12=fear.

Figure 5.1 displays the same data presented in Table 5.4 but seen from the perspective of the feelings identified; that is, it shows the frequency of occurrence of the PFs analysed across the feelings. The results reveal that one feeling can be expressed through the use of different PFs. The bars that present the results in relation to the feelings of belongingness, assurance and enthusiasm clearly illustrate this finding. The situated interpretation of emotions carried out by the analysts reveals that these feelings have been expressed through the use of three different PFs each.

Figure 5.1

May's Speech - Stacked Bar Chart with the PFs Analysed Across the Feelings Identified

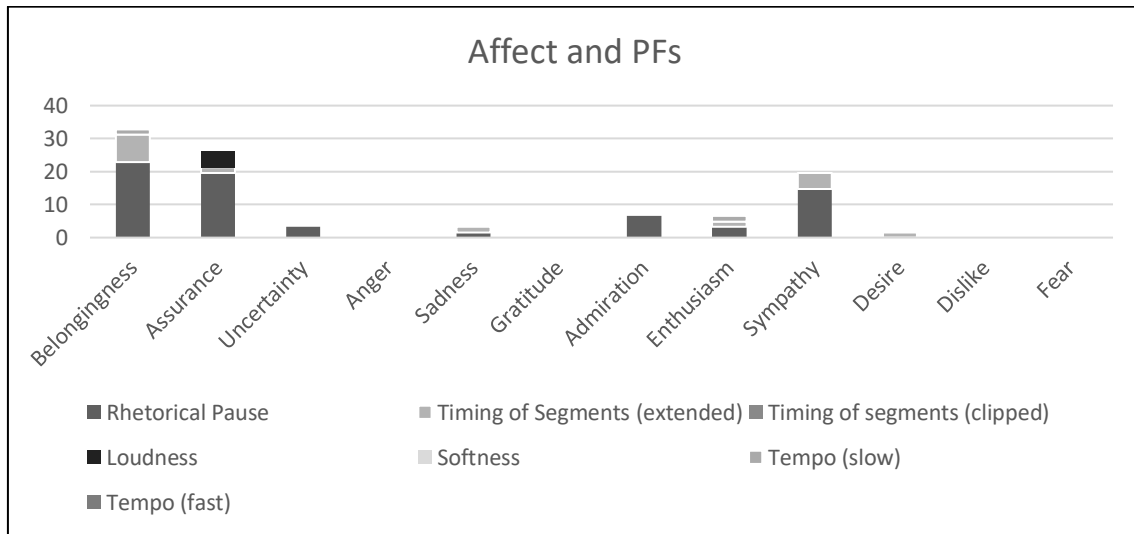


Table 5.5 summarizes the results of the situated interpretation of the emotions the analysts perceive Barack Obama tried to convey when delivering his presidential inaugural. In this speech, there also seems to be a strong connection between the rhetorical pause and the feeling of belongingness (37.19%). However, as in May's speech, the results show that most of the PFs detected in the sample have been used to convey different feelings along the inaugural. As in the other sample, the widest variety of feelings is realized through the rhetorical pause, the PF with the highest number of instances in the sample (94).

The percentages displayed for the rhetorical pause, for example, clearly illustrate that, in Obama's speech, this feature has been used as a resource to convey the nine feelings identified in the sample. belongingness is, once again, the feeling most frequently realized through the rhetorical pause (37.19%). However, it has also been used to convey enthusiasm (17.35%), assurance (9.09%), sympathy (4.13%), dislike (4.13%), uncertainty (2.47%), fear (1.65%), sadness (0.82%) and gratitude (0.82%). Most of the

other PFs detected in the sample have been exploited by the speaker in a similar way, to express more than one specific feeling.

Table 5.5

Obama's Speech - PFs and the Expression of Affect

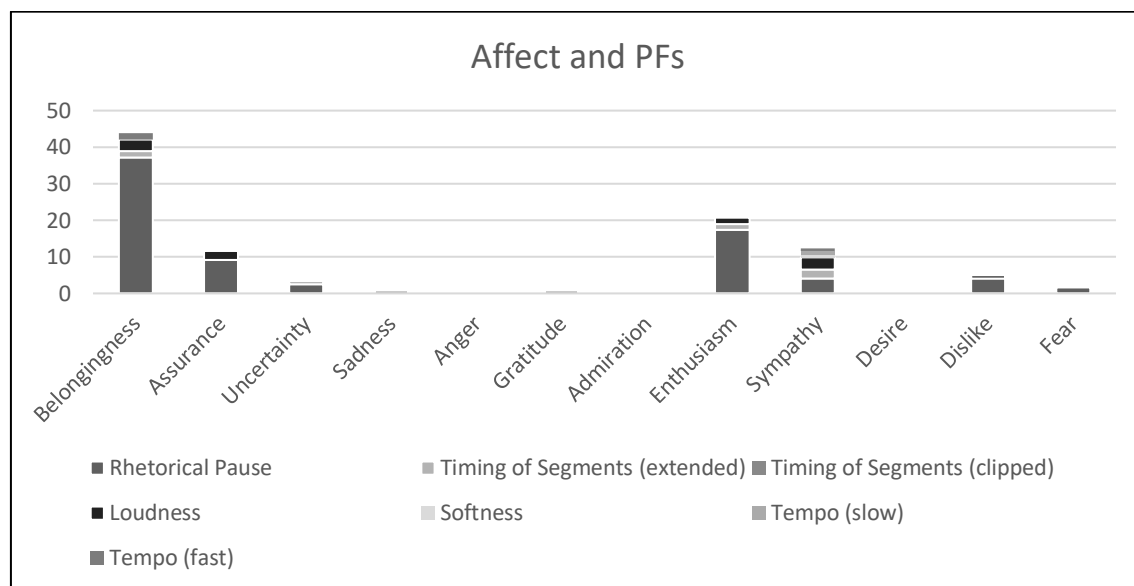
PFs ↓	Emotions →	1	2	3	4	5	6	7	8	9	10	11	12	Total
Rhetorical pause		45	11	3	1	1	21	5		5	2			94
		37.19	9.09	2.47	0.82	0.82	17.35	4.13		4.13	1.65			77.68%
Timing of segments	Extended	2		1				2	3					8
		1.65		0.82				1.65	2.47					6.61 %
	Clipped													
Loudness	Loud speech	4	3					2	4		1			14
		3.3	2.47					1.65	3.3		0.82			11.57%
	Soft speech									1				1
										0.82				0.82%
Tempo	Slow									1				1
										0.82				0.82%
	Fast	2								1				3
		1.65								0.82				2.47%
Total		53	14	4	1	1	25	15		6	2			121
		43.8	11.57	3.3	0.82	0.82	20.66	12.39		4.95	1.65			100%

Note. 1=belongingness; 2=assurance; 3=uncertainty; 4=sadness; 5=anger; 6=gratitude; 7= admiration; 8= enthusiasm; 9= sympathy; 10=desire; 11=dislike; 12= fear.

Seen from the perspective of the feelings identified, Figure 5.2 displays the frequency of occurrence of the PFs analysed in Obama's sample. As in May's speech, the results reveal that one feeling can be expressed through different PFs. Sympathy, for example, is expressed through all the PFs identified in the sample. Belongingness, enthusiasm, assurance and uncertainty display similar tendencies.

Figure 5.2

Obama's Speech. Stacked Bar Chart with the PFs Analysed Across the Feelings Identified



As mentioned before, one of the aims of this study is to characterise political speeches from a phonological perspective through the analysis of inaugural addresses. Table 5.6 summarizes the results of the situated interpretation of the feelings in both samples, Theresa May's and Barack Obama's addresses. The percentages reflect similar tendencies to those seen in Tables 5.4 and 5.5. First, a percentage worth pointing out is that of the rhetorical pause used as a resource to express belongingness (32.41%). In fact, this percentage is by far the highest of all in the Table. Second, the results displayed in Table 5.6 also show that all the PFs analysed but softness⁶, which displays only one occurrence in the corpus, have been used to express more than one emotion. This is clearly evident in the case of the rhetorical pause, which has been used to express all the feelings detected except for desire. These findings will be discussed in detail and illustrated with examples taken from the corpus in Chapter VI (Discussion).

⁶ This PF has been detected only once in Obama's sample.

Table 5.6*May's and Obama's Speeches - PFs and the Expression of Affect*

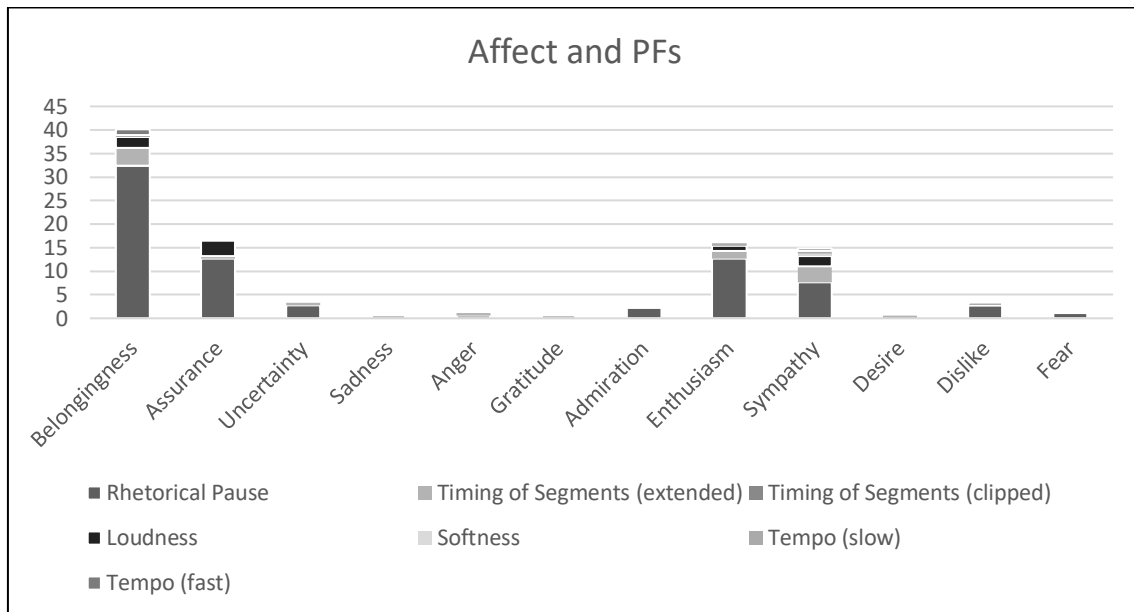
PFs ↓	Emotions →	1	2	3	4	5	6	7	8	9	10	11	12	Total
Rhetorical pause		59	23	5	1	1	1	4	23	14		5	2	138
		32.41	12.63	2.74	0.54	0.54	0.54	2.19	12.63	7.69		2.74	1.1	75.82%
Timing of segments	Extended	7	1	1		1			3	6	1			20
	Clipped	3.84	0.54	0.54		0.54			1.65	3.29	0.54			10.99%
Loudness	Loud speech	4	6						2	4		1		17
		2.19	3.29						1.1	2.19		0.54		9.34%
	Soft speech									1				1
										0.54				0.55%
Tempo	Slow	1							1	1				3
		0.54							0.54	0.54				1.65%
	Fast	2								1				3
		1.1								0.54				1.65%
Total		73	30	6	1	2	1	4	29	27	1	6	2	182
		40.1	16.48	3.29	0.54	1.1	0.54	2.19	15.93	14.83	0.54	3.29	1.1	100%

Note. 1=belongingness; 2=assurance; 3=uncertainty; 4=sadness; 5=anger; 6=gratitude; 7= admiration; 8= enthusiasm; 9= sympathy; 10= desire; 11= dislike; 12=fear.

Figure 5.3 displays the frequency of occurrence of the PFs analysed across the feelings identified in May's and Obama's speeches. The bars in the chart reveal that seven out of 12 feelings have been realized by different PFs. The interpretation of these results is included in Chapter VI (Discussion).

Figure 5.3

May's and Obama's Speeches. Stacked Bar Chart with the PFs Analysed Across the Feelings Identified



Finally, the results reported in Figure 5.3 reveal that the feelings most frequently transmitted in the corpus of this study are: belongingness (40.1%), assurance (16.48%), enthusiasm (15.93%) and sympathy (14.83%). The rest of the feelings have a frequency of occurrence lower than 5% and that number of instances is too low for the analysis to be significant.

In brief, Section 2 has dealt with the results in relation to RQ2. In other words, this section explored the relationships between the PFs analysed and the expression of certain emotions in political speeches. The next chapter will revolve around the discussion of the results presented here.

Chapter VI

Discussion

As previously stated in Chapter I (Introduction), the main purpose of this study is to characterise political speeches from a phonological perspective. The data obtained using Brown's (1990) taxonomy as the matrix for the phonological analysis and the situated interpretation of the emotions politicians have tried to convey serve as input for the discussion presented in this chapter.

This chapter discusses the key findings reported in Chapter V (Results) by means of resorting to the notions presented in the Theoretical Framework (Chapter II) and the latest research in the field presented in the Literature Review (Chapter III). This chapter is divided into two sections. Section 1 interprets the results in relation to the frequency of occurrence of PFs in the presidential inaugurals analysed (RQ1). Section 2 explains the results that address the possible relationships that may exist between the PFs analysed and the types of emotions detected (RQ2). This allows to derive some pedagogical implications (RQ3- Chapter VII), as well as strengths and weaknesses of the analysis and implications for further research (Chapter VIII).

In other words, this study aims at finding regularities in the samples analysed that can contribute to the characterization of political speeches from a phonological perspective. Nevertheless, it is inevitable and also necessary to interpret the findings considering contextual factors since “prosodic signals in speech which contribute to the impression of ‘attitude’ (...) can only be explained by taking into account contextual features, such as speaker-hearer relationship, and text itself” (Wichmann, 2000, p. 5).

Section 1

VI.1 Research Question 1: discussion

RQ1: Which are the most frequently used PFs in the political speeches analysed?

This section discusses the data obtained, reported in Chapter V (Results), in relation to the presidential inaugurals delivered by May and Obama and how political leaders exploit PFs while targeting their audiences.

This study analysed a corpus of two inaugural speeches delivered by one female and one male political leader who speak two standard varieties of traditional English, British and American, respectively. In connection with the PFs in focus, the results indicate that the corpus contains a total of 182 PFs which were perceptually detected by professionals in the field of phonology and were later acoustically corroborated by means of PRAAT (Boersma & Weenink, 2021).

As seen in Table 5.3 (Chapter V, Section 1), occurrences of the rhetorical pause, timing of segments, loudness and tempo have been detected and acoustically measured in the corpus of this study. The presence of all the PFs analysed seems to indicate that the rhetorical devices have been well chosen in relation to the genre analysed, political speeches. However, further research could explore the presence of other PFs within Brown's (1990) taxonomy in this corpus or in a larger one.

After analysing the data in Table 5.3 (Chapter V, Section 1), the PF which has been most extensively exploited on the part of both orators in the speeches analysed is the rhetorical pause. Of the total number of occurrences of the PFs analysed (182), 138 were rhetorical pauses. The fact that this PF is the most frequent device in the corpus seems to be consistent with the interest it has aroused in many of the studies that focus on political discourse reported in Chapter III (Literature Review) (Duez, 1985, 1997; Brus,

2015; Mc Queen, 2017). It seems reasonable to assume that if the rhetorical pause is “an extra enhancing resource” (Mc Queen, 2017, p. 34) and, above all, it is a “marker of power” (Duez, 1997, p. 651), it will be extensively used by skilled orators, in this case newly sworn-in leaders, to “persuade and impress listeners” (Brus, 2015, p. 5). Besides, the strategic use of rhetorical pauses “construe[s] solemnity” (Rossette-Crake, 2019, p. 114) which is “in keeping with the solemnity and historical impetus” of inaugurals (p.21).

Although Duez (1985, 1997) analyses a wider range of genres such as political and casual interviews, and political speeches, he reports similar results in terms of political speeches: the rhetorical pause is the most widely used feature to increase the argumentative force and to sound more persuasive. The profuse use of the rhetorical pauses along both speeches confirms previous findings, despite the fact that further research may be necessary to confirm this finding.

Table 5.3 (Chapter V, Section 1) also reveals that timing of segments, at the extended end of the continuum, is the second most frequently exploited PF, with 20 occurrences out of 182, all of which were detected in vocalic segments. This finding is in line with Freeman (2014), who states that vowel duration is used as a resource to express stance, “speakers’ subjective attitudes towards something” (p. 2), in televised political talk shows. Despite the fact that Freeman analyses a different genre, her findings could be used as evidence to back up the results of the present study since they both focus on political discourse. Needless to say, a larger sample of political speeches should be examined in order to confirm that extended timing of vocalic segments is a PF typically exploited in this particular genre.

As stated in the previous chapter (Chapter V, Results), no instances of clipped timing of segments were found in the corpus. The absence of this feature in both samples may insinuate that this PF is not typical of political speeches. It is worth pointing out that

no specific research which analyses occurrences of clipping in political discourse has been found. However, as previously stated, this is just a preliminary finding in a very small corpus. More speeches should be analysed in the future to obtain more evidence to confirm this finding.

As stated in the previous chapter (Chapter V, Results), loudness, at the “loud” end of the continuum, is the third most frequently exploited PF in the speeches analysed. Out of 182 instances, 14 instances of loud speech in prominent elements were detected. Rodero et al. (2014) observed that listeners rated positively politicians “who used the highest loudness, (...) and a faster speech rate with enough pauses of sufficient length” (p.89). Moreover, Rodero et al. (2014) state that “prosody influences credibility” (p. 105) since “the level of a speaker’s credibility can be increased as a result of a suitable performance of all the prosody elements” (p. 105). The results in the present work are in line with this view since the phonological and textual analysis of the samples in this work reveals that loud speech (loudness) is a resource May and Obama have used to expand the meaning potential of the verbal content, to highlight important information to their audiences and to convey different feelings.

Another finding worth discussing is the fact that only one (1) instance of soft speech (loudness) was perceived and acoustically corroborated. Besides, softness was detected in an isolated manner, not combined with other PFs, and was only produced by Obama. A possible explanation for such low frequency of occurrence of this PF may be related to the act of public speaking since, as Brown (1990) explains, if a person is “speaking in public he will speak more loudly than if he is speaking privately” (p. 126). Also, Rosenberg and Hirschberg (2009) conclude that charisma, “the ability to attract and retain followers” (p. 640), positively correlates with the use of loud utterances in political speeches. If presidential inaugurals aim at bringing citizens of a nation together, even

those who have not voted the newly-elected leader, it may be reasonable to assume that occurrences of soft speech will not abound. Nevertheless, an analysis with a larger corpus may provide more conclusive evidence in favour of this preliminary finding.

The results in this work also show three instances of slow tempo and three instances of fast tempo. Variations of speech rate, especially instances of slow tempo, were expected to be more frequently used by the speakers due the solemnity that characterizes inaugurals as ritual addresses (Carranza, 2008). This initial conjecture was grounded on the findings of previous research.

First, Perea Siller (2017) selected tempo as a feature to analyse in political debates and found that it is a tool speakers resort to in order to add rhetorical force to the verbal content. It is worth pointing out that Perea Siller did not analyse political speeches and worked with Spanish-speaking political leaders. However, as he worked with political discourse, it was hypothesised that variations in speech rate would also be frequently used in political speeches.

Second, authors like Wichmann (2014, as cited in Rodero et al. 2014) point out that “a good speaker uses appropriate variations of loudness, pitch, speech rate, and pauses” (p. 91). Rodero et al., and Rosenberg and Hirschberg (2009) connect this quality with high levels of credibility and charisma in public speaking. The reason for the scarce occurrences of variations of speech rate might be related to how charismatic or credible the speakers whose samples have been analysed are. However, this goes beyond the scope of this study and should be further analysed in connection with a credibility test and charisma judgements as Rodero et al., and Rosenberg and Hirschberg have done.

Despite the few occurrences of variations in speech rate, an in-depth textual analysis of the samples reveals that slow tempo and fast tempo, have strategically been used by May and Obama to highlight important ideas throughout the inaugural, generally

combined with instances of rhetorical pauses. By combining rhetorical pauses and instances of slow/fast tempo, the speakers phonologically organise information and fragment the utterances for the listeners to encode important ideas throughout the speech. Inaugurals are "carefully crafted texts" (Carranza, 2008, p. 27) in which lexical material and sentence structure combine with PFs to expand the meaning potential of the message and to express emotions to the audience.

Due to the persuasive nature of political speeches, the speakers' pragmatic and communicative intentions play a key role in convincing the addressee. Al-Hindawi et al. (2017) indicate that "communicative intentions are intentions to produce some response on the part of the addressee" and they claim that "what the speaker usually intends by his or her communicative action is to change the mental states of the addressee" (p. 11). Considering this view, the combination of PFs represents a rhetorical and phonological strategy that helps the interlocutor make stronger emotional appeals "which are intended to make listeners feel afraid, compassionate, proud, angry, and the like" (Al-Hindawi, et al., 2017, p. 24). This preliminary finding may indicate that the combination of PFs adds additional rhetorical force to the content of the verbal message.

We believe that the selection of features analysed in this study is of relevance in the field of phonology since they have been thoroughly studied and analysed by different researchers in the field, such as Brus (2015), Carrocio (2010), Duez (1985, 1997), McQueen (2016, 2017), Perea Siller (2017), Rodero, et al. (2014) and Rosenberg and Hirschberg (2009). In this sense, the present work seeks to contribute to the study of political discourse by foregrounding the phonological characteristics of political speeches.

In brief, the PFs which showed a frequency of occurrence above 5% in the corpus are: (1) rhetorical pause, (2) extended timing of segments and (3) loud speech (loudness).

It goes without saying that a greater sample could be examined to confirm this preliminary hierarchy of PFs in other political speeches.

The next section will deal with the most important findings in relation to the relationships between the PFs in focus and the emotions the political leaders, whose speeches have been analysed, have tried to convey (RQ2).

Section 2

VI.2 Research Question 2: Discussion

This section aims at expanding on the results in relation to RQ2:

- 4) What possible relationships there exist between the PFs analysed and the types of emotions, intentions and attitudes when these political leaders deliver their speeches?

After the detection and corroboration of the PFs analysed in the corpus, the 182 PFs were further related to 12 categories of “affect” (Juslin & Scherer, 2005) which signalled the emotions perceived by the trained phoneticians during the qualitative phase of the study (see Chapter IV, Section 3.1.3.1). These categories helped the analysts make a situated interpretation of emotions in order to establish a relation between the choice of the different PFs and the emotions that were perceived from each utterance.

The results related to RQ2 are discussed in relation to the data obtained from the analysis of both speeches together since the aim of the study is to characterise political speeches through presidential inaugural addresses from a phonological perspective.

VI. 2.1 PFs as Means to Express Affect

As seen in Table 5.6 (see Chapter V, Section 2), one of the most robust findings of this study is that the rhetorical pause has been frequently used as a means to convey belongingness (32.41%). Campbell and Jamieson (1990) indicate that presidential inaugurals are characterised by the presence of four interrelated elements which make inaugurals different from other types of political rhetoric. Three of these elements are of special interest for this study. The presidential inaugural “unifies the audience by reconstituting its members as ‘the people’ (...), rehearses communal values from the past, and sets forth the political principles that will govern the new administration” (p. 31). In this sense, the high frequency of occurrence of rhetorical pauses which express a feeling of belongingness can be interpreted in terms of the socio-cultural significance of presidential inaugurals, in which interlocutors tend to “construe solemnity” (Rosette-Crake, 2019, p. 114) in a linguistic event that represents a unique opportunity for political leaders to bring the citizens together and call for the unification of a nation.

Example (g) illustrates how Obama seems to convey a feeling of belongingness by means of rhetorical pauses in the phrase “we, the people”, which is characteristic of the American presidential style. It is worth noting that this structure is repeated five times throughout Obama’s speech and is always separated by long rhetorical pauses (1s or longer). This example also aims at illustrating the socio-cultural relevance of American nationalism since the phrase “we, the people” is also bound to the American Constitution and is a frequent strategic device used by American presidential leaders.

(g) Barack Obama: WE //+1.69// the PEOPLE //+1.17// still beLIEVE // that enduring seCUriTY and LASTing PEACE // do NOT require perpetual WAR//

This finding and the arguments used to explain it may lead to the conclusion that the connection between the rhetorical pause and the feeling of belongingness might be stronger in inaugurals than in other types of political speeches. This conjecture, however, calls for further research that can investigate in more detail the relationship between PFs and affect in political speeches other than inaugurals.

Despite the finding mentioned above, it is also possible to see that there are also smaller percentages scattered throughout Table 5.6 (Chapter V, Section 2). This seems to indicate that the speakers whose speeches are part of the corpus in this study have exploited the PFs analysed as multipurpose devices to convey more than one emotion. In these samples, these non-verbal devices seem to play a pragmatic role and seem to convey different feelings depending on the context in which they are inserted and the verbal content they accompany. In this study, PFs are the focus of the analysis and are discussed in most cases independently of lexis and grammatical structures. Nevertheless, it is clear that, in the majority of cases, lexis-grammatical choices and the phonological clothing of utterances often combine and support each other.

Examples (d), (h) and (i), illustrate the use of one PF, extended timing of segments, to transmit different feelings. Below each example, a possible interpretation is offered on the basis of the contextual characteristics in which the speeches were delivered or the utterance in focus was produced.

(d) Barack Obama: // but aMERica cannot reSIST this tranSition//+0.75// we must
LEAD it //+1.00 // we CANnot !=<CEDE>=! it to Other Nations//

When focusing on example (d) (presented in Chapter V, Section 1.1) from the perspective of affect, it is interesting to see how, by producing extended timing of segments on the prominent syllable of the word “cede” (in combination with loud speech), Obama seems to convey a sense of enthusiasm to the audience. By highlighting the word

“cede”, the speaker directly calls for the citizens’ participation in tackling the problem of renewable sources of energy and addressing the dangers of climate change. Moreover, through the use of the inclusive “we”, the interlocutor appears to transmit a sense of action and cooperation among the listeners.

(h) Theresa May: // but the MISSION to MAKE BRITain a COUNtry // that WORKS for Everyone / MEANS M<ORE> than FIGHTing THESE inJUSTices//

Example (h) illustrates how extended timing of segments on the word “more” seems to be used by May to transmit sympathy. In her 2016 public speech, May calls for unity of the nation, addresses the economic issues of working-class people and promises to govern by fighting for working class families. Atkins and Gaffney (2020) point out that, in this speech, May’s rhetorical construction is that of “the archetypal healer” (p. 293). Considering Atkins and Gaffney’s view, it is interesting to analyse how May also uses this PF as an aid to construct and project a specific image of herself as the new Prime Minister who cares about and feels sorry for the social injustices the lower working classes were experiencing at that time and seeks to help them.

(i) Theresa May: // THAT MEANS FIGHTing aGAINST // the B<U>RNing inJUSTice//+0.42//

Example (i) shows how May’s use of extended timing of segments on the vowel sound of the prominent syllable of the word “burning” helps to communicate feeling of anger. She seems to show her displeasure and annoyance towards the unfair socio-economic situation the lower working classes experienced when she was elected as Prime Minister. This example illustrates how “the feelings and attitudes of the speaker are to some extent revealed to the listener” (Brown, 1990, p. 112) and the PF works as a complement to the lexical choice; that is, it reinforces the urgency with which the newly

sworn-in leader plans to tackle the problem of social injustices among lower working class families.

This group of examples (d, h, i) aimed at illustrating how one PF may be used to transmit different feelings to the listeners and at exemplifying how PFs work as a complement to lexis and grammar to express affect. The next group of examples aims at illustrating how one emotion can be conveyed through the use of different PFs.

VI.2.2 Affect Expressed through PFs

A brief examination of Figure 5.3 reflects a similar picture to that presented by Table 5.6. As already mentioned, the feeling of belongingness has often been realized through the use of rhetorical pauses (32.41%). A possible explanation for this finding has already been presented and illustrated. However, it seems important to note that there are also instances in which belongingness has been expressed by means of PFs other than the rhetorical pause. The same happens with most of the emotions detected in the corpus (see Figure 5.3, Chapter V, Section 2).

The findings mentioned above can be interpreted in the light of Juslin and Scherer's (2005) assumption that "context cues provide background information, and thereby alert the observer to a possible, or even likely, emotion" (p. 109). They also add that "context cues are probably important in shaping our judgments of emotion based on voice cues" (p. 109). The data obtained from the analysis seem to reveal the complex nature of the PFs analysed and the fact that their effect should be interpreted in conjunction with other aspects of discourse and communication.

Examples (j) and (k) illustrate how belongingness seems to be conveyed through two different PFs. Below each example a brief interpretation is offered on the basis of

contextual characteristics in which the speeches were delivered or the utterance in focus was produced.

(j) Theresa May: // EVERYONE of us //+0.33// whoEver we ARE//+0.45// and wherEver we're from//

Example (j) illustrates how belongingness seems to be expressed through successive instances of rhetorical pauses. As already said, the newly-elected leader aims at addressing the people as all belonging to the same group, their nation. In this example, the meaning potential of the words “everyone”, “whoever” and “wherever” seems to be enhanced by the use of rhetorical pauses.

(k) Barack Obama: // but **W!=E=! reJ!=E=!CT** // the beLIEF that aMErica must CHOOSE between CARing//

Example (k) exemplifies how loud speech (loudness) on the word “we” seems to be used by Obama to convey a feeling of belongingness, reinforcing the idea of nationalism and unity. Moreover, by the use of the inclusive pronoun “we”, the speaker may insinuate a closer or more intimate relationship with his audience as all belonging to the same group and having the same views of a specific social issue.

The feeling of enthusiasm has also been conveyed through different PFs. Examples (k) and (l) illustrate this finding.

(l) Theresa May:// whatEVER your BACKground//+0.37// to GO as F<A>R //0.31// as your TAlents will TAKE you//

Example (l) exemplifies how enthusiasm is transmitted through the use of extended timing of segments on the word “far”. May projects an enthusiastic attitude when defining the role her administration will play in facing the problem of inequality of

opportunities among social classes in England in 2016. Besides, the extension of the vocalic segment can also be interpreted as reinforcing the optimistic view of the newly-elected Prime Minister who promises the citizens that the chances they will have to use their natural endowments to succeed in life will be fairer to all.

(m) Barack Obama // WE must ACT //+2.24 // we must ACT //+0.14//

KNOWing //

Finally, example (m) shows how enthusiasm is conveyed through the use of rhetorical pauses. Successive instances of this PF after the word “act” seem to help the interlocutor transmit the need for urgent action and cooperation to work in the reconstruction of the American nation. The use of the rhetorical pauses in combination with word repetition is typical in public speaking “to add emphasis, and make the speech livelier” (Rossette-Crake, 2019, p. 163).

As seen in the examples analysed, a preliminary exploration of the relationships between the PFs analysed and the expression of emotions in two inaugural addresses has yielded contradictory results.

On the one hand, it was found that the rhetorical pause has extensively been used as a resource to express belongingness. Due to the specific nature of presidential inaugurals put forward by Campbell and Jamieson (1990) and Rossette-Crake (2019), it was suggested that this finding might be a consequence of having restricted the corpus to a specific type of political speeches: presidential inaugurals.

On the other hand, it was also found that the rhetorical pause has also been exploited as a device to express other feelings. What is more, as illustrated by the examples presented above, the rest of the PFs analysed cannot be clearly associated with any specific emotions, either. These findings support the idea that contextual factors play a key role in the association of PFs and feelings conveyed (Wichmann, 2000). More

conclusive results in this respect may derive from further research with a larger corpus made up of political speeches other than presidential inaugurals.

In brief, the results discussed in this chapter suggest that, based on the frequency of occurrence of the PFs analysed in the corpus of this study (RQ1), a preliminary hierarchy of PFs present in political speeches can be established with the rhetorical pause at the top, followed by extended timing of segments, and loud speech (loudness).

As regards RQ2, more research, with a more heterogeneous sample of political speeches, is required to determine more clearly the relationships between the PFs analysed and the emotions these seem to generally convey.

Although the corpus examined is small, this study has provided an insight into the phonological characterization of political speeches, more specifically, of inaugural addresses.

Chapter VII

Pedagogical Implications

This chapter deals with the pedagogical impact of this work in university contexts; therefore, it will be devoted to answer RQ3:

What pedagogical implications can be derived from this study?

Even when the corpus in this study is small, the results may be of help for the teaching and learning of the expression of emotions from a phonological perspective in university contexts such as the School of Languages, UNC.

When PFs are introduced in the subject Phonetics and Phonology II at Facultad de Lenguas, (UNC), students are presented with a variety of texts belonging to different genres to practice interpretative reading aloud in which the use of PFs plays a key role. For this purpose, students' class materials include samples of poems, fairy tales, and extracts from movies and T.V series, among others, but do not contain political speeches. The provisional characterization of the genre, through inaugural speeches, that derives from this study may give instructors a general panorama of the phonological characteristics which permeate the genre in the English language. This may deepen their understanding of this genre in relation to the PFs more frequently produced and the range of emotions vocal cues might convey. Consequently, they can feel encouraged to include texts of this kind as part of the practice material offered in the subject.

Including some political speeches may be enlightening for students, as well. That will give them the chance to be exposed to a wider array of genres and, consequently, will add variety to the course material. Also, the incorporation of this genre may make them

become aware of the differences there exist between genres and how genres work as “shaper[s] of texts, meanings and social actions” (Bawarshi & Reiff, 2010, p. 4). In addition to that, it may help students deepen their understanding of this genre in relation to the PFs more frequently produced and the range of emotions these may convey. In turn, by being more conscious of the characteristics of political speeches, students could further reflect upon the nature of political speeches and the role of PFs in this genre, which aims primarily at persuading audiences.

Part of the conceptual framework constructed for this study can be of help when presenting PFs in the phonetics and phonology class. To carry out the perceptual and acoustic analyses of the PFs in focus in this study, it was necessary to clearly define each of the PFs analysed considering both their perceptual characteristics and their acoustic correlates. This work could be the starting point to continue working on a clear definition for all the PFs included in Brown’s (1990) taxonomy that could serve as a useful complement to Brown’s explanations when teaching and learning these features.

Some of the tools devised to carry out the analysis of the samples may also be of help for undergraduate students when dealing with PFs in the phonetics and phonology class. The annotation system designed for the perceptual identification of the PFs analysed, adapted from Roach’s (2000), brought several advantages along the study (see Chapter III, Section 3.3.1.1). Although only the codes for the PFs analysed were devised, it may prove useful to complete the annotation system to cover all the PFs in Brown’s (1990) taxonomy. Thus the system may be used as a class tool to work with the written texts before carrying out the reading aloud task. This may lead to unambiguous coding when annotating the written texts. Even more important is that having a coding system may help students identify the PFs annotated more easily while reading. This, in turn,

may improve students' reading performance in the FL, which is one of the ultimate objectives of the subject.

Carranza (2008) points out the need to help college students in English as a Foreign Language programs in Argentina to adopt an integral approach to the study of a foreign language and its culture. Thus, students can have the chance to see “the potential for creativity in meaning and language form” (p. 27) realized in texts other than literary ones and are able “to learn about the culture, history, and politics of English-speaking countries” in texts other than those found in history books. The approach adopted for the analysis of political speeches in this work could be a contribution towards remedying that shortcoming in these training programs.

One of the specific objectives of this study was to explore the associations there exist between the PFs analysed and the emotions these seem to convey. This called for an integral approach to the analysis of the samples that form the corpus of the study. It goes without saying that the phonological analysis lied at the heart of this work. But, to interpret the phonological clothing of the utterances, more specifically the use of PFs, and the emotions they seem to convey, it was also necessary to take into consideration the socio-political context in which the speeches were delivered and, to a lesser extent, the lexico-grammatical choices that make up the verbal content of the texts analysed.

This integral approach could be adopted when dealing with texts of this kind since they lend themselves to a comprehensive analysis that can be carried out when teaching and learning phonology, and also when dealing with language, literature or history. In this sense, this work seeks to help students gain awareness of the importance of contextual cues, in order to improve their understanding of texts and to better interpret them.

In short, the findings in the present study seek to establish a point of departure to help students improve their reading aloud skills. It aims at providing students and

instructors with more tools to approach the study of such a complex realm as political discourse and to have an in-depth view of how vocal cues can be strategically manipulated in order to transmit different emotions when targeting audiences.

We hope the findings of this study help further enhance the teaching and learning in EFL contexts, such as School of Languages, UNC.

Chapter VIII

Conclusions and Lines for further Research

This chapter deals with the most relevant conclusions related to the findings, the limitations of the study and the lines for future research that derive from this study. The present study represents an attempt to characterise political speeches from a phonological perspective. It has analysed and explored the frequency of occurrence of PFs in political speeches and how political leaders convey different feelings to their audiences when using them.

A preliminary hierarchy of the PFs analysed based on their frequency of occurrence derives from the results obtained. It has been found that the rhetorical pause is a resource that the speakers analysed have exploited most frequently to enhance the meaning potential of the verbal message.

What is more, this study has contributed to the study of the expression of emotion in political speeches through the use of PFs. The findings indicate that, in the presidential inaugurals analysed, the rhetorical pause has been frequently used to express belongingness. However, this and the other PFs in focus in this study have also been used to convey other feelings. This finding leads to believe that contextual factors highly influence the emotions PFs convey.

Despite the fact that these findings are limited to the material analysed, they might be of help if this genre is incorporated to the class material for reading aloud practice in Phonetics and Phonology II at the School of Languages, UNC. Besides, the approach adopted for the analysis of the speeches has shown that the persuasiveness of political speeches is a result of the manipulation of phonological resources in conjunction with

lexico-grammatical features in specific socio-historical contexts. This integral approach taken for the analysis of the samples in this study can also be followed in class so that undergraduate students can interpret the texts more effectively when they read them aloud.

While the current study has provided insights into the characterisation of political speeches from a phonological perspective, there are some limitations that need to be addressed. First, due to the detailed perceptual and acoustic analyses carried out in this work, it was impossible to work with more samples. However, a larger corpus would have made the findings more representative of the genre analysed and would have led to more conclusive results. Second, the fact that the samples analysed are both presidential inaugurals might have had an impact on the findings, especially in connection with RQ2. This shortcoming opens up a line for further research. In spite of these drawbacks, the detailed analysis carried out with the samples analysed offers an abundance to learn from.

It is hoped that these findings trigger more research in the field of phonology that connects political speeches to PFs as resources for the expression of emotions. In fact, several paths for future work in the area derive from the present work.

A possible extension of the present study could be to include other PFs from Brown's (1990) taxonomy in the analysis, especially those that were perceptually detected throughout the presidential inaugurals analysed. These are articulatory setting, articulatory precision and voice setting, which are more difficult to measure but might report interesting findings.

This study has found more evidence to confirm that the pause is the PFs par excellence in political speeches. On the basis of that and considering Carrocio's (2010) study and her view on pauses, further research could concentrate on this PF in the

speeches analysed and on the possible relationships between the length of pauses and their dramatic effect.

This study has yielded inconclusive results in connection with the relationship between the PFs analysed and the emotions these seem to convey. The data reveal that the rhetorical pause has been frequently used to express belongingness. It was hypothesized that this finding may be a consequence of having selected just presidential inaugurals for the analysis. A more varied corpus that includes political speeches delivered on different occasions should be considered in future studies that aim at characterising this genre.

Further research could be undertaken by adding more speeches to the corpus of this study, delivered by both female and male speakers, in order to carry out a comparative analysis across genders. Although this calls for acoustic normalization of the material, it may shed light on the typical PFs exploited by males and females and on how these rhetorical devices are used to express emotions across genders. Something similar could also be done comparing the use of PFs across different varieties of English.

Reference List

- Alexiyevets, O. (2017). Prosody of the viewpoint in political discourse. *Lege Artis*, 2(1), 4-41.
- Al-Hindawi, F. H., Mayuuf, H. H., & Al-Juwaid, W. R. (2017). Basic Tenets of Rhetorical Pragmatics. 1 اداب الكوفة, (31).
- Ariztimuño, L. (2016). *La emoción en los cuentos de hadas: La expresión escrita y oral del afecto y la graduación* [Master's thesis, Facultad de Ciencias Humanas, Universidad Nacional de Río Cuarto].
- Atkins, J., & Gaffney, J. (2020). Narrative, persona and performance: The case of Theresa May 2016–2017. *The British Journal of Politics and International Relations*, 22(2), 293-308.
- Bajtin, Mijaíl (1985) *Estética de la creación verbal*. Siglo XXI. Editores Argentina, 2005.
- Bawarshi, A. S., & Reiff, M. J. (2010). *Genre: An introduction to history, theory, research, and pedagogy*. Indiana: Parlor Press LLC.
- Beard, A. (2000). *The language of politics*. Routledge.
- Bombelli, G, Soler, L, & Waasaf, M. (2013). The Language of Evaluation: paralinguistic features as a phonological domain for appraisal. *DELTA: Documentação de Estudos em Lingüística Teórica e Aplicada*, 29(2), 267-280. HYPERLINK: <https://dx.doi.org/10.1590/S0102-44502013000200004>

- Brown, G. (1990). *Listening to Spoken English*.
- Brown, G., Currie, K. L., & Kenworthy, J. (2015). *Questions of Intonation*. Routledge.
- Brus, R. A. (2015). *The use of filled and unfilled pauses by George W. Bush and Barack Obama* [Bachelor's thesis, Utrecht University].
- Cambridge University. (2021). *Cambridge dictionary*. <https://dictionary.cambridge.org/>
- Campbell, K. K., & Jamieson, K. H. (1990). Inaugural address. In *Deeds done in words: Presidential rhetoric and the genres of governance* (pp. 14-223). University of Chicago Press.
- Carranza, I. E. (2008). Strategic political communication: a leader 's address to the nation. *Nueva Revista de Lenguas Extranjeras*, 10, 25-56.
- Carranza, I. E. (2012). Los géneros en la vida social: la perspectiva fundada en las prácticas sociales. *Los géneros discursivos desde múltiples perspectivas* (pp. 99-122). Iberoamericana Vervuert.
- Carrocio, M. (2010). Las pausas y su función retórica en el discurso político. *Colección avances de investigación*. (pp. 3-32) ISSN 1688-7476
- Cauldwell, R. (2013). Teaching the stream of speech. In *Phonology for Listening*.
- Couper-Kuhlen, E. (1986). *An introduction to English prosody*. Edward Arnold.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson.
- Cruttenden, A. (1997). *Intonation*. Cambridge University Press.
- Cruttenden, A. (2014). *Gimson's pronunciation of English*. Routledge.

- Crystal, D. (1966). *The Linguistic Status of Prosodic and Paralinguistic Features*. Department of Linguistic Science, Faculty of Letters. Hyperlink: https://www.google.com.ar/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwi9vLbv2K7VAhVBhZAKHVprBhsQFggqMAA&url=http%3A%2F%2Fwww.davidcrystal.com%2F%3Ffileid%3D-4924&usg=AFQjCNHDNGnZu-ZgjoxSm248zML53KM_9g
- Crystal, D. (1975). Paralinguistics. *The body as a medium of expression*, (pp. 162-174). Mouton.
- Crystal, D., & Quirk, R. (1964). *Systems of prosodic and paralinguistic features in English* (No. 39). Mouton.
- Crystal, D., & Davy, D. (1969). *Investigating English style*. Routledge.
- Dictionary.com. (2021). *Thesaurus.com*. <https://www.thesaurus.com/>
- Duez, D. (1985). Perception of silent pauses in continuous speech. In *Language and speech*. (pp. 377-389). ResearchGate. DOI 10.1177/002383098502800403
- Duez, D. (1997). Acoustic markers of political power. In *Journal of psycholinguistic research*, (pp. 641-654). Plenum Publishing Corporation. DOI 0090-6905-97/1100-0641
- Freeman, V. (2014). Hyperarticulation as a signal of stance. In *Journal of phonetics*. (pp. 1-16).
- Harmer, J. (2007). *The practice of English language teaching*. (4thEd). Pearson Education Limited.

- Hieke, A. E., Kowal, S., & O'Connell, D. C. (1983). The trouble with "articulatory" pauses. In *Language and speech*, 26(3), (pp. 203-214).
- Juslin, P. N., & Scherer, K. R. (2005). Vocal expression of affect. In J. Harrigan, R. Rosenthal, K. R. Scherer, & K. Scherer (Eds.) *New handbook of methods in nonverbal behavior research* (pp. 65-136). Oxford University Press.
- Karpiński, M. (2012). The boundaries of language: Dealing with paralinguistic features. In *Lingua Posnaniensis*, 54(2), (pp. 37-54). DOI 10.2478/v10122-012-0013-1
- Ladefoged, P. (2003). *Phonetic data analysis: An introduction to fieldwork and instrumental techniques*. Wiley-Blackwell.
- Laukka, P., Juslin, P., & Bresin, R. (2005). A dimensional approach to vocal expression of emotion. In *Cognition & Emotion*, (pp. 633-653).
- Macmillan Education Limited. (2021). *Macmillan dictionary*.
<https://www.macmillandictionary.com/>
- Martin, P. (2021). *Speech acoustic analysis*. John Wiley & Sons.
- MC Queen, H. J. (2016). Exploring the intonation of appraised items in Obama's speech: The case of prominence. In *International Journal of Language Studies*, 10(2). (pp. 79-102). Lulu Press Inc. ISSN: 2157-4898
- Mc Queen, H. J. (2017). *La prosodia como herramienta de manipulación y persuasión en un discurso político*. [Master's thesis, Facultad de Lenguas (UNC)].
- Oliveira, M. (2002). The role of pause occurrence and pause duration in the signaling of narrative structure. In *International conference for natural language processing in Portugal* (pp. 43-51). Springer, Berlin, Heidelberg.

- Oxford University. (2021). *Oxford learner's dictionary*.
<https://www.oxfordlearnersdictionaries.com>
- Plack, C. J., & Carlyon, R. P. (1995). Loudness perception and intensity coding. (pp. 123-160). *Hearing*.
- Paltridge, B., & Starfield, S. (2007). *Thesis and dissertation writing in a second language: A handbook for supervisors*. Routledge.
- Patterson, D., & Ladd, D. R. (1999). Pitch range modelling: linguistic dimensions of variation. In *Proceedings of ICPhS* (Vol. 99, pp. 1169-1172).
- Perea Siller, F. J. (2017). Gestión de pausas y velocidad elocutiva en el paralingüaje político. In Marrero Aguiar, V., & Estebas Vilapalana, E. (Eds.), *Tendencias actuales en fonética experimental: Cruce de disciplinas en el centenario del Manual de Pronunciación española* (pp. 151-155). Universidad Nacional de Educación a Distancia – UNED.
- Randour, F., Perrez, J., & Reuchamps, M. (2020). Twenty years of research on political discourse: A systematic review and directions for future research. In *Discourse & Society*, 31(4), (pp. 428-443).
- Roach, P. (2000). Techniques for the phonetic description of emotional speech. In *ISCA Tutorial and Research Workshop (ITRW) on Speech and Emotion*.
- Roach, P. (2009). *English phonetics and phonology paperback with audio CDs (2): A practical course*. Cambridge university press.

- Roach, P., Stibbard, R., Osborne, J., Arnfield, S., & Setter, J. (1998). Transcription of prosodic and paralinguistic features of emotional speech. In *Journal of the International Phonetic Association* (pp. 83-94).
- Rodero, E., Mas, L., & Blanco, M. (2014). The influence of prosody on politicians' credibility. In *Journal of Applied Linguistics & Professional Practice*, 11(1), (pp. 89–111. DOI <https://doi.org/10.1558/japl.32411>
- Rosenberg, A., & Hirschberg, J. (2009). Charisma perception from text and speech. In *Speech communication*, 51(7), (pp. 640-655).
- Rossette-Crake, F. (2019). *Public speaking and the new oratory*. Springer International Publishing.
- Schuller, B., Steidl, S., Batliner, A., Burkhardt, F., Devillers, L., Müller, C., & Narayanan, S. (2013). Paralinguistics in speech and language - state-of-the-art and the challenge. In *Computer speech and language* (pp. 4-39).
- Trager, G. L. (1958). Paralanguage: A first approximation. (pp. 1-11).
- van Dijk, T. A. (1997). What is political discourse analysis. *Belgian journal of linguistics*, 11(1), (pp. 11-52).
- van Dijk, T. A. (2001). Political discourse and ideology. UPF. DOI 1031921/doxacom.n1a12
- Weber, K. (2011). *A genre analysis of the American presidential inaugural address* [Master's thesis, Universität wien]. <http://othes.univie.ac.at/14956/>
- Wichmann, A. (2000). The attitudinal effects of prosody, and how they relate to emotion. In *ISCA Tutorial and Research Workshop (ITRW) on Speech and Emotion*.

Wichmann, A. (2002). Attitudinal intonation and the inferential process. In *Speech Prosody 2002, International Conference*.

Appendix A

Theresa May's Transcript

Theresa May: First speech as Prime Minister - (2016)

I have // JUST been to BUckingham PAlace //+0.49// where her MAjesty the QUEEN / has Asked me to FORM a NEW GOvernment //+0.64// and I acCEpted // in DAvid CAmeron / I FOLLOW in the FOOTsteps // of a GREAT MODern PRIME MInister// UNDER DAvid's LEAdership //+0.71// the GOvernment STAbilized the eCOnomy//+0.48// reDUced the BUDEficit // and HELPEd MORE PEOPle into WORK // than EVER beFORE// BUT DAvid's TRUE LEgacy //+0.33// is NOT aBOUT the Economy //+0.38// but aBOUT SOCIal JUstice// from the introDUCtion of SAME-SEX MArrriage/ to TAKIng PEOPle on LOW WAges//OUT of INCOme TAX altoGEther//+0.92// DAvid CAmeron has LED a ONE-NATION GOvernment/ and it is in THIS SPirit // that I ALSO PLAN//+0.16// to LEAD// beCAUSE NOT EVERYBOdy KNOWS this //+0.34// but the FULL TITLE //+0.22// of my PARty // is the conSERvative // and / UNIONist //+0.11// PARty //+0.83// and THAT WORD UNIONist / is VERY/ imPOrtant //+0.14// to ME//It MEANS we beLIEVE in the UNion / the PRECIous, PRECIous BOND / beTWEEN ENgland // SCOTland // WALES // and NORTHern IREland //+1.09// but it MEANS SOMETHing ELSE that is JUST as imPOrtant// it MEANS we beLIEve in a UNion / NOT JUST beTWEEN the NATIons of the United KINGDOm //+0.62// but beTWEEN <A>LL of our CITizens //+0.62// EVERY ONE of us //+0.33// whoEVer we ARE//+0.45// and wherEVER we're from// THAT MEANS FIGHTING aGAINST // the BURning inJUstice//+0.42// that if you're BORN POOR /you will DIE on Average// NINE YEARS EARLIER than OThers/

if YOU're BLACK/ you're TREATed MORE HARSHly // by the CRIMinal JUStice
 SYStem // than if you're WHITE/ If you're a WHITE, WORKing-class BOY/ you're
 LESS LIKEly//than ANYbody ELSE in BRITain/ to GO to uniVERsity //if you're at a
STATE SCHOOL// you're LESS LIKEly to REACH the TOP proFEssions / than if
 you're EDUcated PRivately// if you're a WOman// you will EARN LESS than a MAN//if
 you Suffer from mental HEALTH PROblems / there's NOT eNOUGH HELP to HAND//
 if you're YOUNG/ you'll FIND it HARDer than EVER beFORE / to OWN your OWN
HOME// but the MIssion to MAKE BRITain a COUNtry // that WORKS for EVERYone
 / MEANS M<ORE> than FIGHTing THESE inJUSTices / if you're from an ORDinary
 WORKing CLASS Family // LIFE is MUCH HARDer than MANY PEOPle in
 WESTminster REALise / you HAVE a JOB/ but you DON'T ALways have JOB seCUrity
 / you HAVE your OWN HOME / but you WORRY aBOUT PAYing a MORTgage / you
 can JUST aBOUT MAnage / but you WORRY aBOUT the COST of LIVing and GETting
 your KIDS/ into a GOOD SCHOOL //

if you're ONE of THOSE Families//+0.53 // if you're JUST MAnaging //+0.41// I
 WANT to adDRESS you//+0.10// DIRECTly/I KNOW you're WORKing around the
CLOCK// I KNOW you're DOing your BEST/ and I KN<OW> //+0.33// that SOMETimes
 /LIFE //+0.11// can be a STRUGgle// the GOVERNment I LEAD//+0.40// will be DRIVen
 //+0.37// NOT by the INterests of the PRIVileged FEW//+0.65// but by YOURS// we will
 DO EVERYthing //WE CAN//+0.52// to GIVE you //+0.12// MORE conTROL// OVer
 your LIVES// when we TAKE the BIG CALLS/ we'll THINK NOT of the POWERful
 //+0.26// but YOU/ when we PASS NEW LAWS / we'll LISTEN NOT to the
MIGHTY//+0.19// but to YOU/ when it COMES to TAXes/ we'll priORitise NOT the
WEALTHY//+0.27// but YOU// when it COMES to opporTUinity /we WON'T
 enTRENCH the adVANtages of the FORTunate FEW/ we will DO EVERYthing we CAN

// to HELP ANYbody//+0.41// whatEVER your BACKground//+0.37// to GO as F<AR>
 //+0.31// as your TALents will TAKE you// WE are LIVing //+0.22// THROUGH an
 imPORTant MOment / in our COUNTRY'S HIStory// FOLLOWING the
 refeRENdum // we FACE a TIME of ^GREAT//+0.13// NAtional //+0.15// CHANGE^ //
 and I KN<OW> beCAUSE we're GREAT BRITain//+0.43// that we will RISE to the
CHALenge/ as we L<EA>VE the euroPEAN Union/ we will FORGE/ FORGE a
 B!==!D NEW POSitive ROLE for ourselves // in the WORLD// and we will MAKE
 BRITain a COUNTRY// that WORKS NOT for a PRIVIleged FEW//+0.63// but for
EVERY//+0.12// ONE of US// TH!=A=!T //+0.16// will be the MIssion //+0.17// of the
GOVERNment / I LEAD//+0.62// ^and toGEther //+0.61// we will BUILD//+0.12// a
BETter //+0.39// BRITain^//

Appendix B

Barack Obama's Transcript

Barack Obama: Second Inaugural Speech – (2013)

// vice PRESident Biden MIster CHIEF JUStice MEMbers of the UNITED states
CONgress diSTINguished GUESTS // and FELLOw Citizens // EACH T<I>ME we
 GAther to iNAUgurate a PRESident //+1.67// we bear WITness // to the enDURING
STRENGTH // of our constiTUtion // we afFIRM // the PROMise of our deMOcracy //
 we reCALL that what BINDS this NATION toGEther is NOT // the COLOrs of our SKIN
 //+0.87// or the TENets of our FAITH //+1.42// or the Origins // of our NAMES // what
 MAKES us exCEptional //+1.77// what MAKES us aMERican //+1.82// is our
 allEgiance to an iDEA // arTICulated in a declaRation made MORE than TWO
 CENTuries aGO// we HOLD these TRUTHS // to be SELF-Evident // that ALL MEN //
 are created Equal // that they are enD<OWE>D // by their CREATor // with CERTain
 unAlienable RIGHTS // that aMONG THESE // are LIFE // LIBerty // and the purSUIT
 of HAPpiness // toD<AY> /we conTInue // a NEVer-ENDING JOURney //+0.65// to
 BRIDGE the MEANing of THOSE WORDS //with the reAlities // of our TIME // for
 HISTory TELLS us // that while these TRUTHS may be SELF-Evident //+1.28// they've
NEVer been // self-EXecuting //+1.82// that while FREEdom is a gift from GOD //+1.30//
 it must be SECured by HIS PEOple // HERE on EARTH //+4.03// the PATriots of
 SEVenteen seventy SIX // did NOT FIGHT to replace the TYRanny of a KING //+0.51//
 with the PRIVileges of a FEW // +1.13 // OR the RULE of a MOB // +2.38// they GAVE
 to us a rePUBlic //+1.50 // a GOVERNment OF // and BY // and FOR the PEOple // +1.29//
 enTRUSTing EACH geneRAtion // to keep SAFE our FOUNDing CREED // +2.78//and

FOR MORE //+0.98// than TWO hundred YEARS we HAVE //+2.57// [through BLOOD drawn by LASH // and BLOOD drawn by SWORD // we LEARNED // that NO union FOUNDED on the PRINciples of LIBerty and eQUALity] // could surVIVE // HALF-SLAVE and HALF-FREE //+2.05// we MADE ourselves aNEW // and VOWED to move FORward //+0.21// toGETHer // +2.27// toGETHer we deTERmined // that a MODern eCONomy requires RAILroads and HIGHways // to speed TRAVel and COMmerce // SCHOOLS and COLleges to TRAIN our WORKers//+1.41// toGETHer //+0.86// we disCOVERed that a FREE MARKET Only THRIVES // when there are RULES to enSURE compeTition // and FAIR PLAY // +1.86// toGETHer //+0.83// we reSOLVed that a GREAT NATion // must CARE for the VULnerable // and proTECT its PEOple // from LIFE'S worst HAZards and misFORtune //THROUGH it ALL //+0.51// we have NEVer reLINquished our SKEpticism of // CENcentral auTHOriety // +0.94 // nor have we sucCUMBED to the FICtion // that <A>LL society's ILLS // can be CURED through GOVERNment aLONE // our CElebration of iNItiative //and ENterprise // our inSIstence // on HARD WORK and PERsonal responsiBIlity // these are CONstants // in our CHAracter // we have ALways underSTOOD that when TIMES CHANGE //+0.48// SO must WE //+1.53// that fiDElity to our FOUNding PRINciples requires // NEW resPONses to new CHALenges // +1.73// that preSERVing our INdividual FREEdoms // ULtimately reQUIRES // colLEctive Action// [for the aMERican PEOPle can NO more MEET the deMANDS // of toDAY'S world by ACTing aLONE // than american SOLDiers] // could have met the FORces of FAScism or COMmunism // with MUSkets and miLITias // NO SINGle PERson // can train ALL the MATH and SCIENCE TEACHers we'll need to eQUIP // our CHILDren for the FUture // or build the ROADS and NETworks and REsearch labs // that will bring NEW jobs and BUssineses to our SHORES // NOW //+0.56// MORE than EVer //+0.67// we must DO these things

toGETHER// +0.82// as ONE NAtion //+0.56// and ONE PEOple // THIS geneRAtion of aMEricans has been // TESTed / by CRISes that STEELED our reSOLVE // and PROVED our reSILience// a DEcade of WAR // is NOW ENding // an Economic reC!=O=!Very //+0.24// has beGUN// aMErica's POSsiBilities are Limitless// for WE possess !=A=!LL the QUalities // that THIS world without BOUNDaries deMANDS // YOUTH //+0.22// and DRIVE //+0.81// diVERsity //+0.57// and Openness //+1.18// an ENDless caPacity for RISK // and a GIFT // for reinVENTion//

my FELlow aMEmericans // WE are MADE for this MOment // and WE will SEIZE it //+0.25// so LONG as we SEIZE it toGETHER // for WE //+1.10// the PEOple //+1.24// underSTAND that our COUNtry canNOT sucCEED // when a SHRINKing FEW //+0.64// do VEry WELL and a GROWing MANy barely MAKE it // WE beLIEVE that aMErica's prosPERity must REST upon the BROAD SHOULDers of a RISing middle CLASS// we know that aMErica THRIVES when Every PERson // can FIND indePENpendence and PRIDE in their WORK //when the WAGes of HONest Labor LIBerate FAMilies from the BRINK of HARDship // we are TRUE to our CREED // when a LITtle GIRL // BORN into the BLEAKest POVerty // KNOWS that // [SHE has the SAME chance to sucCEED as Anybody else because SHE is an aMErican] //+0.26// SHE is FREE //+0.18// and she is Equal not JUST// in the EYES of GOD but ALSO in our OWN// we underSTAND that OUTworn PROGRams are inAdequate // to the NEEDS of OUR time// SO we must HARness NEW ideas // and techNOlogy to reMAKE our GOvernment // REEVamp our TAX code // reFORM our SCHOOLS // and emPOWER our ciTIZens with the SKILLS they NEED to // WORK HARder // LEARN MORE // REACH HIGHER// but while the MEANS will change //+0.95// our PURpose enDURES // a NAtion that reWARDS // the EFFort and determiNAtion // of Every SINgle aMErican //+0.54// THAT is WHAT this MOMEnt reQUIRES //+0.20// THAT is WHAT will

GIVE REAL MEANing // to our CREED// WE //+1.23// the PEOPLE //+1.01// still
 beLIEVE that Every citizen deSERVES // a BAasic measure of seCUrity and DIGNity //
 WE MUST make the HARD CHOICES // to reDUCE the cost of HEALTHcare // and the
 SIZE of our Deficit // but W!=E=! reJ!=E=!CT // the beLIEF that aMERica must CHOOSE
 between CARing // for the GEneration that BUILT this country // and inVESTing in the
 geneRAtion that will BUILD its Future // for WE remember the LESsons of our PAST //
 when TWIlighT YEARS were SPENT in POVerty // and PArEnts of a CHILD with a
 DISaBility had NOWhere to TURN// we do NOT beLIEVE that in this COUNtry
FREEdom // is reSERVED for the LUcky// or HAPpiness for the FEW // we REcognize
 that no matte HOW reSPONsibly we live our lives //+0.80// any ONE of us //+0.72// at
Any time // +0.88// may FACE // a JOB loss // or a SUDden ILLness //+0.67// or a HOME
 SWEPT away in a TERrible STORM // the comMITments we make to EACH oTHER //
 through MEdicare // and MEdicaid // and Social seCUrity // THESE things do not SAP
 our iNItiative // they STRENGTHen US // they DO not MAKE us a NAtion of TAKers
 // they FR!=EE=! us /to TAKE the RISKS // that make this COUNtry GREAT // WE //
 +1.25// the PEOPLE //+1.41// still beLIEVE that our obliGAtions as aMEricans // are NOT
JUST // to ouSELVES // but to ALLl posTEriTy // WE will reSPOND to the THREAT
 of CLiimate change //KNOWing that the FAILure to DO so // would beTRAY our
 CHILDren // and FUture geneRAtions // some may STILL deny the overWHELming
 judgment of SCIENCE //+0.71// but NONE can aVOID the DEvastating IMPact of
 RAging FIRES //+0.38// and CRIPling DROUGHT // +0.94// and MORE POWerful
STORMS // the PATH towards susTAINable Energy SOURces will be L<O>NG / AND
 SOMETimes DIFficult // but aMERica canNOT reSIST this tranSition //+0.75// we must
LEAD it // +1.00 // we cannot C!=<E>=!DE it to Other nations // the techNOlogy that
 will POWER NEW jobs and new inDUStries // WE MUST CLAIM its PROmise // that's

HOW we will mainTAINtain our Economic viTAlity // AND our NAtional TREAsure//
 +1.36 // our FORests// and WAterways //+0.74// our CROP LANDS //+0.11// and
 SNOW-capped PEAKS // that is HOW we will preSERVE PLAnet //+0.78//
 comMANDed to our CARE by GOD // TH=A=T'S what will lend MEANing //+0.21//
 to the CREED //+0.44// our FAtHers once deCLARED // WE //+1.69// the PEOple //
 +1.17// still beLIEVE // that enDURing seCUrity and LASTing PEACE // do NOT
 require perPETual WAR// our BRAVE MEN and WOMen in UniforM // TEMpered by
 the FLAMES of BATtle // are UNMATCHED in SKILLl and COURage // our Citizens
 //SEARED by the MEMory of THOSE we have LOST // know TOO WELL // the PRICE
 that is PAID for Liberty // the KNOWledge of their SAcrifice will KEEP us forEver
Vigilant // against THOSE who would DO us HARM // but WE are also HEIRS to those
 who WON the PEACE //+0.21// and NOT just the WAR // +0.78 // who turned SWORN
Enemies // into the SUREst of FRIENDS // and we must CARry THOSE LESsons into
 this TIME as well // we will deFEND our people and UPhold our VAlues / through
 STRENGTH of ARMS // AND RULE of LAW // we will show the COURage to TRY //
 and reSOLVE our DIfferences with Other nations PEACEfully // NOT because we are
 naIve about the DANgers we FACE // but because enGAGEment can more DURABly
LIFT // susPicion and FEAR // aMERica will reMAIN the ANchor // of STRONG
 aLLiances in Every CORner of the GLOBE // and we will reNEW those instiTutions
 that exTEND our caPacity to MAnage CRIsis Abroad // for NO one has a GREATER
STAKE //+0.27// in a PEACEful WORLD //+0.12// than its most POWerful NAtion// we
 will supPORT deMOcracy from Asia // to Africa // from the aMERicas // to the MIDDLE
EAST // because our INterests and our conSCIENCE // comPEL us to ACT on beHALF
 // of those who LONG for FREEdom // and WE must BE a SOURCE of HOPE //+0.45//
 to the POOR //+0.66// the SICK // the MARginalized //+0.52// the VICtims of PREjudice

// NOT OUT of MERE CHArity // but because PEACE in our TIME // requires the
 CONStant adVANCE of those PRINciples // that our COMMon CREED desCRIBES
 //+1.10// Tolerance and OpportuNity //+1.34// HUman DIGNity // +0.96 // and JUStice
 // WE //+1.00// the PEOple // deCLARE toDAY // the most Evident of TRUTHS // that
ALL of us // are created Equal // is the ST<A>R that GUIDES us STILL // JUST as it
 GUIDed our FOREbears through SEneca FALLS // and SELma // and STONEwall //
 JUST as it GUIDed ALL those MEN and WOmen // SUNG and UNSUNG // who left
 FOOTprints along this GREAT MALL // to HEAR a PREACHer SAY // that we canNOT
 walk aLONE // to hear a KING proCLAIM // that our INdiViDUAL FREEdom is
 InexTRICably BOUND to the FREEdom // of Every SOUL on Earth// it is NOW OUR
 geneRAtion's TASK // to CARRY ON // what THOSE Pioneers beGAN// for OUR
 JOURney is NOT comPLETE // until our WIVES // our MOthers and DAUGHters // can
 EARN a living Equal to their Efforts // our JOURney is NOT comPLETE // until our
 GAY brothers and SISters // are TREATED like anyone ELSE under the LAW// for if we
 are TRUly created Equal // then S!=U=!REly the LOVE we comMIT to ONE anOther //
 MUST be Equal as WELL //our JOURney is NOT comPLETE // until NO CItizen is
 FORCED to wait for HOURS // to Exercise the RIGHT to VOTE // our JOURney is
 NOT comPLETE // until WE find a BETter way to WELcome the STRIVING HOPEful
IMmigrants // who STILL see aMERica as a LAND of opporTUnity // until BRIGHT
 YOUNG STUdents and engiNEERS // are ENlisted in our WORKforce // RATHER than
 exPELLED from our COUNtry // our JOURney is NOT comPLETE // +0.80// until
 <A>LL our CHILdren // from the STREETS of deTROIT // to the HILLS of
 AppaLachia // to the QUIET LANES of NEWtown // +1.57 // ^KNOW that they are
CARED for // +0.94 // and CHErished^ // +1.35 // and always SAFE from HARM //
TH!=A=!T //+0.69// is our GEneration's TASK // +1.16 // to make THESE words//+0.15//

THIS IS THESE RIGHTS // THESE VALUES // +0.80// of LIFE // and Liberty // and the
 purSUIT of HAPPiness // +0.84// REAL for Every aMERican// being TRUE to our
 FOUNDING DOCuments // does NOT reQUIRE us to // aGREE on Every CONTour of
LIFE // it does NOT // MEAN we // ALL define LIBerty in // eEXACTly the SAME WAY
 // or FOLlow / the SAME preCISE PATH to HAPiness // PROGRess does NOT comPEL
 us to SETtle // CENturies-LONG deBATES about theROLE of GOvernment // for
ALl time // but it DOES require us to ACT in OUR time // for NOW deCISions are
 uPON us // and we canNOT affORD deLAY // we canNOT MIStake absoLUTism for
PRINciple // or SUBSTITute SPECtacle for POLitics // or treat NAME calling as REASON
 deBATE // WE must ACT // +2.24 // we must ACT // +0.14// KNowING // that our
 WORK will be imPERFECT // we must ACT // +0.18// KNOWing that toDAY'S
VICtorIES // will BE only PARTial // and that it will be UP to those who STAND here in
FOUR years // and FORTY years // +0.10// and FOUR HUNDRED years HENCE // +0.37//
 to adVANCE the TIMEless SPirit once conFERRED to US // in a SPARE philaDELphia
HALL // my FELLOW aMERicans // +2.03 // the OATH // I have SWORN before you
 toDAY // like the one reCITed by // Others who SERVE in this Capitol // was an OATH
 to GOD and COUNtry // not PARty // or FACtion // and we MUST FAITHFULLY EXECUTE
 that PLEDGE during the duRATION // of our SERvice // but the WORDS I SPOKE today
 // are NOT so DIFferent // from the OATH that is taken EACH time a SOLDier SIGNS
 up for DUTY // or an IMmigrant who REALizes her DREAM // MY OATH is NOT so
DIFferent // from the PLEDGE we ALL MAKE // to the FLAG that WAVES ABOVE //
 and that FILLS our HEARTS with PRIDE // THEY are the WORDS of CITIZENS //
 +0.88 // and they REpresent our GREATest hope // YOU and I as CITIZENS // +0.16//
 have the POWER to SET this COUNtry's COURSE // YOU and I as CITIZENS // +0.23//
 have the OBLIgation to SHAPE the deBATES of OUR time // NOT ONLY with the

VOTES we CAST // but with the VOICES we LIFT in deFENSE // of our MOST ANcient
VALues and enDURING iDEALS // +2.44 // LET us EACH // of us NOW // emBRACE //
with SOlemn DUty // and Awesome JOY //what IS ourLASTing BIRTHright // +1.60 //
with COMMon EFfort // +0.90 // and COMMon PURpose // with PASsion // and
dediCAtion // +1.07 // let US ANswer the CALL of HIStory // and CARRY into an
unCERtain FUture that PREcious light of FREEdom // THANK you god BLESS you
//+0.80// and may HE forEver BLESS // these uNited STATES of aMErica//

Appendix C

Theresa May's Excel Sheet

Time in speech	Rhetorical pause	Attitudes, emotions, intentions	Emotions numbered	PFs numbered
4.32	0.49	admiration	7	1
8.64	0.64	admiration	7	1
22.12	0.48	assurance	2	1
29.66	0.33	admiration	7	1
31.33	0.38	sympathy	9	1
40.90	0.92	admiration	7	1
48.51	0.16	assurance	2	1
52.10	0.34	uncertainty	3	1
53.54	0.22	belongingness	1	1
56.38	0.11	belongingness	1	1
57.59	0.11	belongingness	1	1
61.80	0.14	sympathy	9	1
81.49	0.62	belongingness	1	1
83.95	0.62	belongingness	1	1
85.93	0.33	belongingness	1	1
87.10	0.45	belongingness	1	1
94.21	0.42	anger	5	1
162.25	0.53	sympathy	9	1
164.12	0.41	sympathy	9	1
165.95	0.10	sympathy	9	1
171.98	0.33	assurance	2	1
173.67	0.11	uncertainty	3	1
176.99	0.40	assurance	2	1
178.12	0.42	assurance	2	1
180.85	0.66	belongingness	1	1
185.06	0.52	assurance	2	1
186.29	0.12	assurance	2	1
192.73	0.26	sympathy	9	1
197.55	0.19	sympathy	9	1

202.69	0.27	sympathy	9	1
212.28	0.41	assurance	2	1
213.99	0.37	belongingness	1	1
215.20	0.31	enthusiasm	8	1
219.95	0.22	belongingness	1	1
227.01	0.13	belongingness	1	1
227.60	0.15	assurance	2	1
230.89	0.43	assurance	2	1
246.32	0.63	sympathy	9	1
247.64	0.12	belongingness	1	1
249.92	0.16	assurance	2	1
252.51	0.62	assurance	2	1
253.91	0.61	belongingness	1	1
255.48	0.12	enthusiasm	8	1
256.13	0.39	belongingness	1	1
Time in speech	Extended timing of segments	Attitudes, emotions, intentions	Emotions numbered	PFs Numbered
25.07	0.14	-----	-----	-----
54.24	0.16	-----	-----	-----
63.45	0.17	belongingness	1	2
64.04	0.25	belongingness	1	2
72.96	0.09	-----	-----	-----
76.40	0.20	belongingness	1	2
77.01	0.26	belongingness	1	2
82.67	0.25	belongingness	1	2
91.22	0.10	-----	-----	-----
93.01	0.16	anger	5	2
137.27	0.32	sympathy	9	2
170.24	0.10	-----	-----	-----
171.68	0.27	sympathy	9	2
214.87	0.36	enthusiasm	8	2
229.48	0.24	sympathy	9	2
234.69	0.19	desire	10	2
238.23	0.32	assurance	2	2
239.59	0.11	-----	-----	

Time in speech	Loudness	Verbal Content	Emotions numbered	PFs numbered
42.29	76.39dB	THAT spirit that I also plan to lead	2	4
238.22	74.27dB	we will forge a bold	2	4
249.46	76.82 dB	THAT will be the mission	2	4
Time in speech	Softness			

---	-----	-----	-----	-----
Time in speech	Slow tempo			
226.56	2.79 (sps)	great national change	1	6
253.08	3.16 (sps)	and together we will build a better Britain	8	6

Appendix D

Barack Obama's Excel Sheet

Time in speech	Rhetorical pause	Attitudes, emotions, intentions	Emotions Numbered	PFs Numbered
74.56	1.67	Belongningness	1	1
92.71	0.87	Belongningness	1	1
95.51	1.42	Belongningness	1	1
99.06	2.34	Belongningness	1	1
102.63	1.77	Belongningness	1	1
149.68	0.65	Belongningness	1	1
183.11	0.51	dislike	11	1
185.18	1.13	dislike	11	1
196.35	1.29	assurance	2	1
205.01	0.98	Belongningness	1	1
217.93	0.34	Belongningness	1	1
226.21	0.21	Belongningness	1	1
248.09	0.86	Belongningness	1	1
260.81	0.83	Belongningness	1	1
260.81	0.51	Enthusiasm	8	1
265.56	0.94	Enthusiasm	8	1
289.82	0.48	Assurance	2	1
291.24	1.53	Assurance	2	1
297.87	1.66	belongningness	1	1
333.31	0.56	enthusiasm	8	1
334.89	0.67	enthusiasm	8	1
337.54	0.82	Belongningness	1	1
339.26	0.56	Belongningness	1	1
367.94	0.24	enthusiasm	8	1
380.07	0.22	enthusiasm	8	1
381.18	0.80	enthusiasm	8	1
382.81	0.57	enthusiasm	8	1
384.29	1.18	enthusiasm	8	1

395.51	0.25	Belongingness	1	1
406.81	1.10	Belongingness	1	1
408.88	1.24	Belongingness	1	1
413.67	0.64	dislike	11	1
448.58	0.26	Belongingness	1	1
449.71	0.18	Belongingness	1	1
493.08	0.54	Belongingness	1	1
495.60	0.20	Enthusiasm	8	1
503.94	1.23	Belongingness	1	1
505.88	1.018	Belongingness	1	1
561.94	0.82	Belongingness	1	1
563.63	0.72	uncertainty	3	1
565.24	0.88	uncertainty	3	1
568.98	0.67	sadness	4	1
601.27	1.25	Belongingness	1	1
602.99	1.41	Belongingness	1	1
631.75	0.71	Dislike	11	1
635.59	0.38	Fear	12	1
637.02	0.90	Fear	12	1
646.70	1.21	uncertainty	3	1
650.18	0.75	Belongingness	1	1
651.89	1.00	Enthusiasm	8	1
666.32	1.36	Belongingness	1	1
669.40	0.74	Enthusiasm	8	1
671.27	0.11	Enthusiasm	8	1
676.10	0.78	Belongingness	1	1
681.93	0.21	Belongingness	1	1
682.88	0.44	Belongingness	1	1
688.99	1.69	Belongingness	1	1
691.58	1.17	Belongingness	1	1
734.87	0.21	Belongingness	1	1
736.33	0.78	Dislike	11	1
781.34	0.27	Assurance	2	1
782.69	0.12	Assurance	2	1
799.57	0.45	Sympathy	9	1

800.82	0.66	Sympathy	9	1
802.10	0.72	Sympathy	9	1
804.06	0.52	Sympathy	9	1
815.19	1.10	Belongingness	1	1
817.86	1.34	Enthusiasm	8	1
820.12	0.96	Sympathy	8	1
826.31	1.00	Belongingness	1	1
828.10	01.05	Belongingness	1	1
872.65	0.30	Enthusiasm	8	1
873.90	0.67	Enthusiasm	8	1
942.18	0.80	assurance	2	1
950.03	1.57	sympathy	9	1
952.99	0.94	assurance	2	1
954.70	1.35	assurance	2	1
961.42	0.69	assurance	2	1
963.79	1.16	enthusiasm	8	1
966.35	0.15	belongingness	1	1
967.60	0.36	belongingness	1	1
969.19	0.80	belongingness	1	1
973.23	0.84	belongingness	1	1
1035.09	2.24	enthusiasm	8	1
1038.25	0.09	enthusiasm	8	1
1043.15	0.13	enthusiasm	8	1
1050.95	0.10	assurance	2	1
1052.76	0.37	assurance	2	1
1065.34	02.03	belongingness	1	1
1112.29	0.88	Belongingness	1	1
1118.44	0.16	Belongingness	1	1
1124.56	0.23	Belongingness	1	1
1161.39	0.80	gratitude	6	1
1163.56	0.05	belongingness	1	1
Time in speech	Extended timing of segments	Attitudes, emotions, intentions	Emotions numbered	PFs numbered
72.23	0.19	Belongingness	1	2
130.08	0.23	Sympathy	9	2
146.21	0.22	Enthusiasm	8	2

268.70	0.30	Sympathy	9	2
644.76	0.23	Uncertainty	3	2
653.73	0.25	Enthusiasm	8	2
837.10	0.30	Belongingness	1	2
943.41	0.34	Sympathy	9	2
Time in speech	Loudness	Verbal Content	Emotions numbered	PFs numbered
366.52	73.93	recovery	8	3
375.31	73.99	all	2	3
523.95	71.43	we	1	3
524.44	71.43	reject	11	3
590.50	70.85	free	8	3
653.54	70.19	cede	1	3
901.67	73.40	surely	2	3
960.69	71.28	that	2	3
966.62	70.52	these rights	1	3
1003.48	73.37	all	9	3
1038.31	73.99	knowing	1	3
1100.92	73.51	oath	9	3
1111.59	73.17	citizens	9	3
1122.64	72.04	citizens	9	3
Time in speech	Softness	Verbal content	Emotions numbered	PFs numbered
680.48	65.61	that's	9	4
Time in speech	Slow tempo	Verbal content	Emotions numbered	PFs numbered
951.33	1.78 (sps)		9	5
Time in speech	Fast tempo	Verbal content	Emotions numbered	PFs numbered
229.27	5.35 (sps)		1	6
306.88	5.48 (sps)		1	6
444.73	5.43 (sps)		9	6

Appendix E

Tables

Table 2.1

Prosodic and PFs (Crystal, 1975; Crystal & Davy, 1969)

PROSODIC FEATURES	PARALINGUISTIC FEATURES
<p>PITCH: <i>widened pitch-range, narrowed pitch-range, monotone pitch range, high pitch range, low pitch range, ascending pitch range, descending pitch range</i></p>	<p>LARYNX EFFECTS and</p>
<p>LOUDNESS: <i>forte, fortissimo, piano, pianissimo, crescendo, diminuendo</i></p>	<p>ORAL EFFECTS</p>
<p>SPEED: <i>clipped syllables, clipped syllables, held syllables, allegro, allegrissimo, lento, lentissimo, accelerando, rallentando.</i></p>	<p><i>whisper, breathy, husky, creak, falsetto, resonant, spread, laugh, giggle, tremulousness, sob, cry.</i></p>
<p>RHYTHM: <i>rhythmic/arhythmic, spiky/glissando, staccato/legado</i></p>	
<p>PAUSE: <i>unit pause, brief pause, double pause, voiced pause</i></p>	
<p>TENSION: <i>tense/lax, precise/slurred</i></p>	

Table 4.1

Coding System used for the Perceptual Identification of the PFs Analysed

RHETORICAL PAUSE	
/EACH T<I>ME we GATHER to iNAUGurate a PRESident //+1.67//we bear WITness/	
LOUDNESS	
Loudness != THAT =! spirit that I also plan to lead	Softness =every one of us=
TIMING OF SEGMENTS	
Extended en<dowed>	Clipped > <
TEMPO	
Fast [Through blood drawn by lash and blood drawn by sword we learned that no union founded on the principles of liberty and equality]	Slow ^great national change^

Table 4.2*Classification of Affect and their Corresponding Definition*

1. Belongingness: the state or feeling of belonging to a particular group. A feeling of close or intimate relationship. A sense of belonging. Possible synonyms: closeness, familiarity, inseparability, intimacy, nearness.

2. Assurance: the state of being certain in the mind. Confidence of mind or manner: easy freedom from self-doubt or uncertainty, something that inspires or tends to inspire confidence. Possible synonyms: assuredness, certainty, certitude, confidence, conviction, doubtlessness, sureness.

3. Uncertainty: the quality or state of being uncertain or in doubt. Possible synonyms: distrust, distrustfulness, doubt, dubiety, incertitude, misdoubt, mistrust, mistrustfulness, skepticism, suspicion.

4. Sadness: affected with or expressive of grief or unhappiness, causing or associated with grief or unhappiness.

5. Anger: a strong feeling of displeasure and usually of antagonism.

6. Gratitude: the state of being grateful or thankful for something.

7. Admiration: a feeling of respect and approval, an object of esteem.

8. Enthusiasm: strong excitement of feeling, a feeling of energetic interest in a particular subject or activity and an eagerness to be involved in it.

9. Sympathy: an affinity, association, or relationship between persons or things where in whatever affects one similarly affects the other. A feeling or expression of understanding and caring for someone else who is suffering or has problems that have caused unhappiness.

10. Desire: to long or hope for something. To exhibit or feel desire for something, to express a wish for conscious impulse toward something that promises enjoyment or satisfaction in its attainment. Possible synonyms: ache (for), covet, crave.

11. Dislike: to not like someone or something. A feeling of aversion or disapproval.

12. Fear: an unpleasant emotion or thought that a person has when he/she is frightened or worried by something dangerous, painful, or bad that is happening or might happen. An unpleasant often strong emotion caused by anticipation or awareness of danger.

Table 4.3

Nominal Scores for the PFs Analysed

Paralinguistic Features		Nominal scores
Rhetorical pause		1
Timing of segments	Extended	2
	Clipped	3
Loudness	Loudness	4
	Softness	5
Tempo	Fast	6
	Slow	7

Table 4.4*Nominal Scores for the Emotions Analysed*

Emotions	Nominal scores
Belongingness	1
Assurance	2
Uncertainty	3
Sadness	4
Anger	5
Gratitude	6
Admiration	7
Enthusiasm	8
Sympathy	9
Desire	10
Dislike	11
Fear	12

Table 5.1*May's Speech - Frequency of Occurrence of the PFs*

	Rhetorical pause	Timing of segments		Loudness		Tempo		Total
		Clipped	Extended	Loud speech	Soft speech	Slow	Fast	
Frequency of occurrence	44	0	12	3	0	2	0	61
Relative frequency of occurrence	72.13	0	19.62	4.91	0	3.27	0	100%

Table 5.2*Obama's Speech - Frequency of Occurrence of the PFs*

	Rhetorical pause	Timing of segments		Loudness		Tempo		Total
		Clipped	Extended	Loud speech	Soft speech	Slow	Fast	
Frequency of occurrence	94	0	8	14	1	1	3	121
Relative frequency of occurrence	77.69	0	6.61	11.57	0.83	0.83	2.48	100%

Table 5.3*Frequency of Occurrence of the PFs in May's and Obama's Speeches*

	Rhetorical pause	Timing of segments		Loudness		Tempo		Total
		Clipped	Extended	Loud speech	Soft speech	Slow	Fast	
Frequency of occurrence	138	0	20	17	1	3	3	182
Relative frequency of occurrence	75.82	0	10.99	9.34	0.55	1.65	1.65	100%

Table 5.4*May's Speech - PFs and the Expression of Affect*

PFs ↓	Emotions →	1	2	3	4	5	6	7	8	9	10	11	12	Total
Rhetorical pause		14	12	2		1		4	2	9				44
		22.95	19.67	3.27		1.63		6.55	3.27	14.76				72.13%
Timing of segments	Extended	5	1			1			1	3	1			12
		8.19	1.63			1.63			1.63	4.91	1.63			19.62%
	Clipped													
Loudness	Loud speech		3											3
			4.91											4.91%
	Soft speech													
Tempo	Slow	1							1					2
		1.63							1.63					3.26%
	Fast													
Total		20	16	2		2		4	4	12	1			61
		32.78	26.22	3.27		3.27		6.55	6.55	19.67	1.63			100%

Table 5.5*Obama's Speech - PFs and the Expression of Affect*

PFs ↓	Emotions →	1	2	3	4	5	6	7	8	9	10	11	12	Total
Rhetorical pause		45	11	3	1		1		21	5		5	2	94
		37.19	9.09	2.47	0.82		0.82		17.35	4.13		4.13	1.65	77.68%
Timing of segments	Extended	2		1					2	3				8
		1.65		0.82					1.65	2.47				6.61 %
Loudness	Loud speech	4	3						2	4		1		14
		3.3	2.47						1.65	3.3		0.82		11.57%
Tempo	Soft speech									1				1
										0.82				0.82%
Tempo	Slow									1				1
										0.82				0.82%
Tempo	Fast	2								1				3
		1.65								0.82				2.47%
Total		53	14	4	1		1		25	15		6	2	121
		43.8	11.57	3.3	0.82		0.82		20.66	12.39		4.95	1.65	100%

Table 5.6*May's and Obama's Speeches - PFs and the Expression of Affect*

PFs ↓	Emotions →	1	2	3	4	5	6	7	8	9	10	11	12	Total
Rhetorical pause		59	23	5	1	1	1	4	23	14		5	2	138
		32.41	12.63	2.74	0.54	0.54	0.54	2.19	12.63	7.69		2.74	1.1	75.82%
Timing of segments	Extended	7	1	1		1			3	6	1			20
		3.84	0.54	0.54		0.54			1.65	3.29	0.54			10.99%
Loudness	Loud speech	4	6						2	4		1		17
		2.19	3.29						1.1	2.19		0.54		9.34%
Tempo	Soft speech									1				1
										0.54				0.55%
Tempo	Slow	1							1	1				3
		0.54							0.54	0.54				1.65%
Tempo	Fast	2								1				3
		1.1								0.54				1.65%
Total		73	30	6	1	2	1	4	29	27	1	6	2	182
		40.1	16.48	3.29	0.54	1.1	0.54	2.19	15.93	14.83	0.54	3.29	1.1	100%

Appendix F

Figures

Figure 4.1

PRAAT Image of Acoustic Analysis in Obama's Inaugural Address

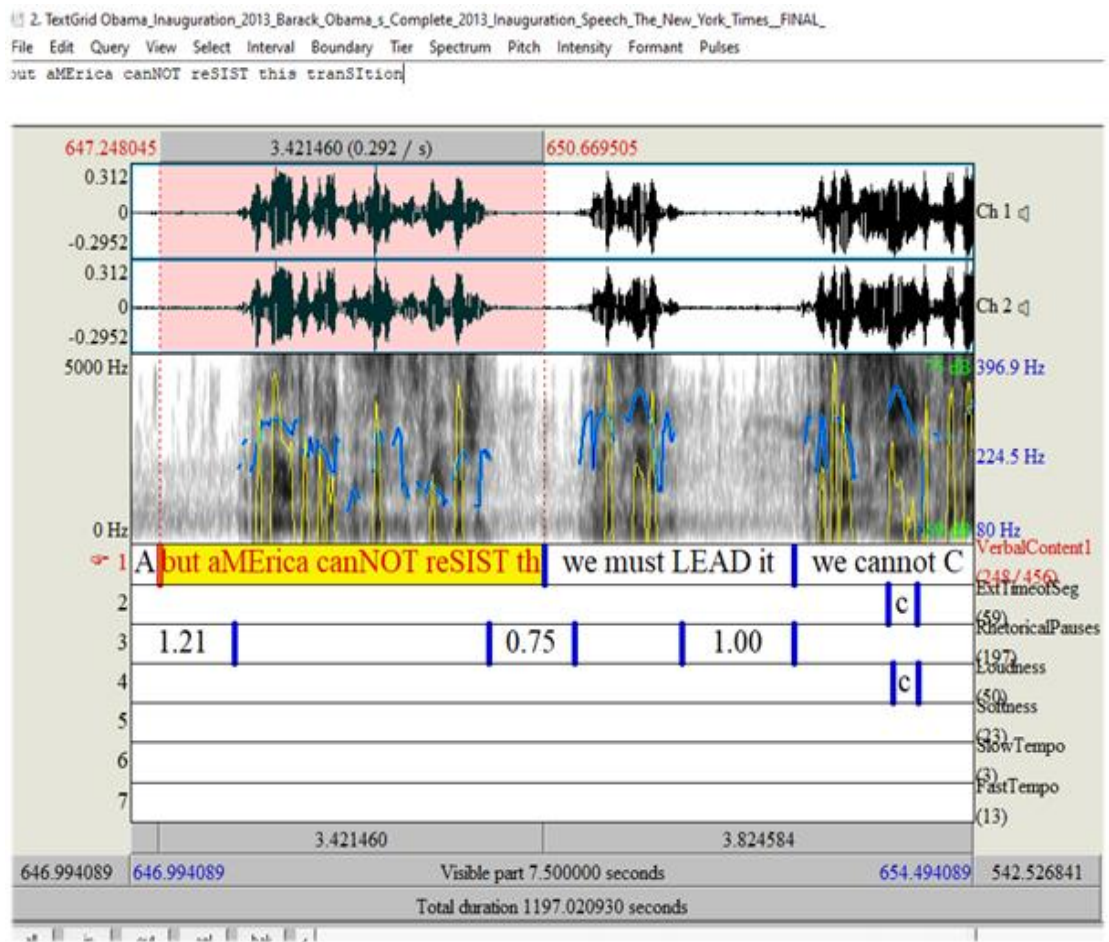


Figure 4.2

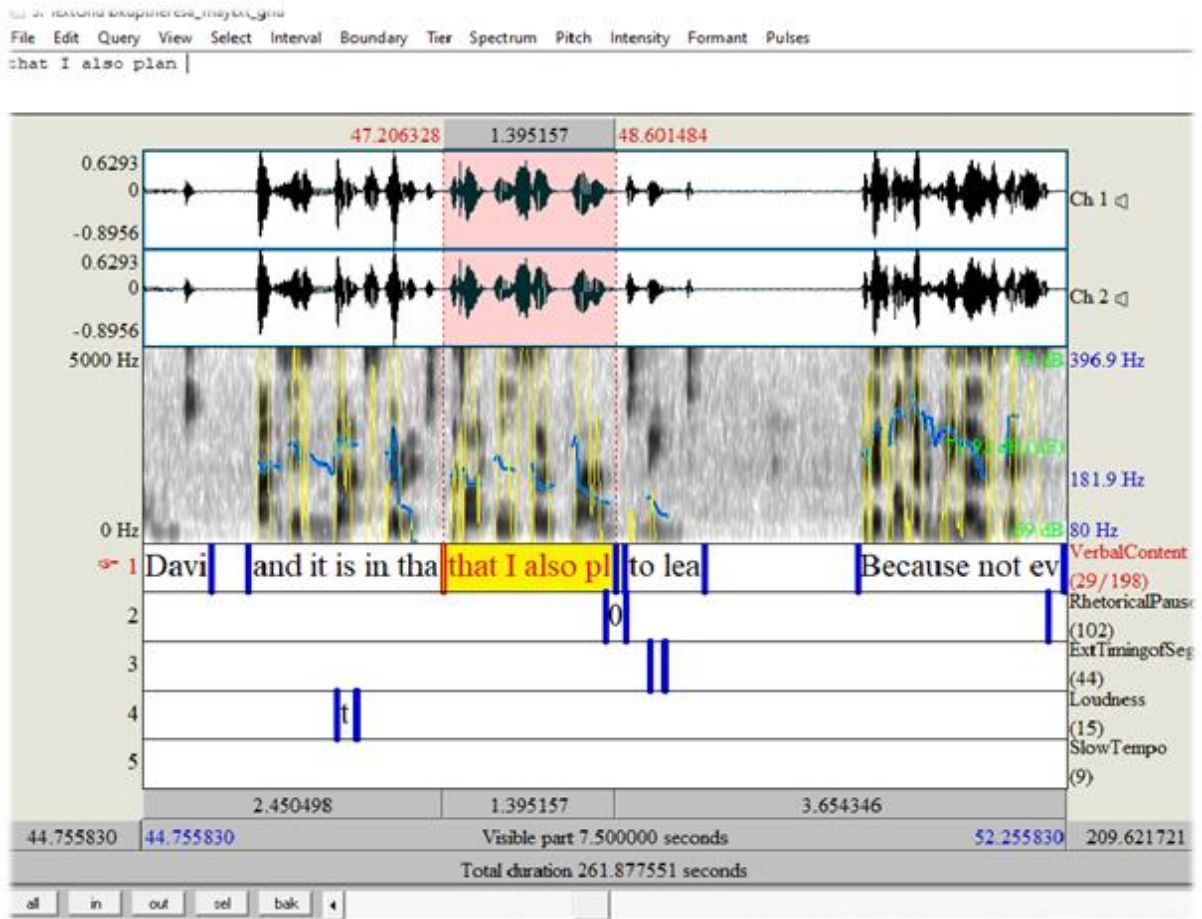
PRAAT Image of Acoustic Analysis in May's Inaugural Address

Figure 5.1

May's Speech - Stacked Bar Chart with the PFs Analysed Across the Feelings Identified

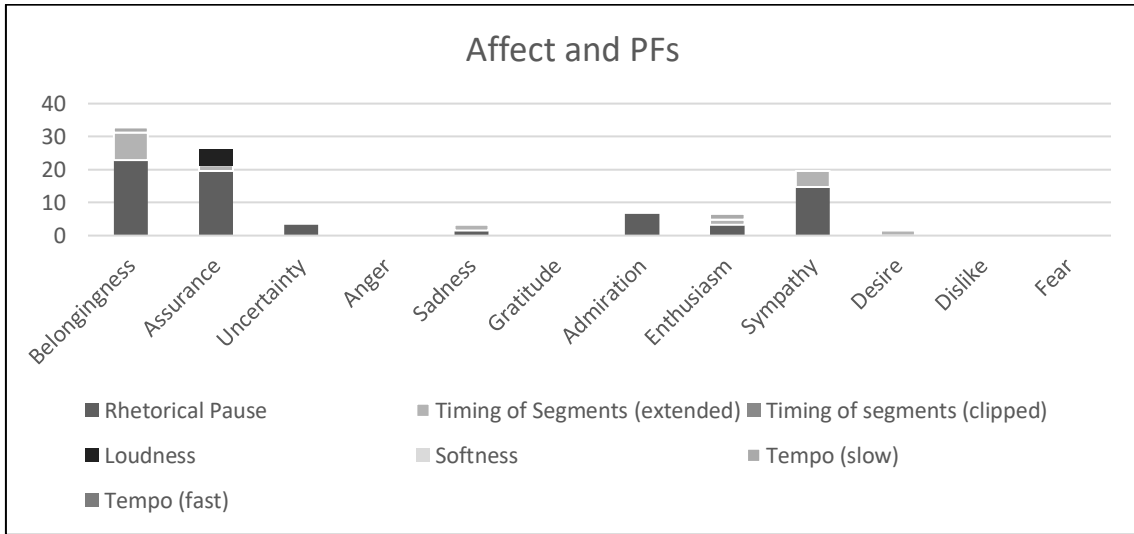


Figure 5.2

Obama's Speech. Stacked Bar Chart with the PFs Analysed Across the Feelings Identified

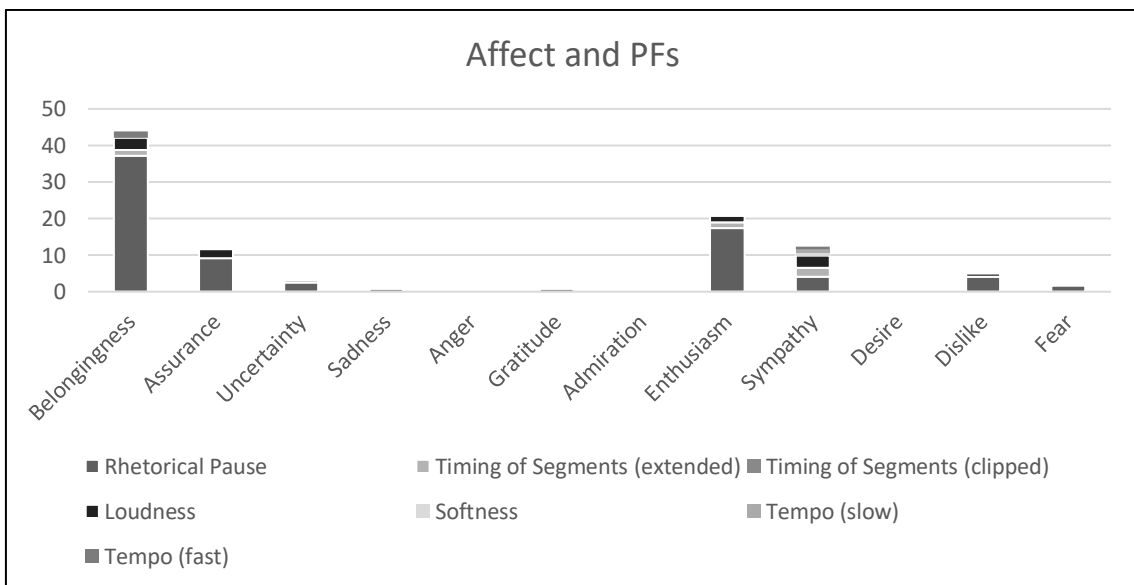


Figure 5.3

May's and Obama's Speeches. Stacked Bar Chart with the PFs Analysed Across the Feelings Identified

