

ABSTRACT

ERICSON, HOLLY ANNE. An Intonational Analysis of Mexican American English in Comparison to Anglo American English. (Under the direction of Erik R. Thomas).

Until recently, intonational aspects of Mexican American English have received little to no attention. The research that has been conducted (Fought 2003; Penfield and Ornstein-Galicia 1985; Metcalf 1972) is a good start, but needs more precision and rigor. There is a need to describe this prosodic feature in more accurate terms than line drawings accompanied by a narrow number scale (Metcalf 1972). In 1992 Beckman and Hirschberg proposed their solution to this gap with the ToBI Annotation Conventions, which is the current model used for measuring intonation. This thesis uses ToBI conventions in conjunction with Praat spectrograms to compare the intonation of Mexican American English to Anglo American English. Results indicate that speakers of these two groups do typically differ in intonational patterns, most noticeably in final contours and pitch accents. These intonational differences contribute to the distinctness of each variety, which can cause misunderstandings in communication (e.g.: MAE declarative mistaken for interrogative). The results of this study contribute to the understanding of Mexican American English and to the comparative examination of intonation based on natural conversation.

AN INTONATIONAL ANALYSIS OF MEXICAN AMERICAN ENGLISH
IN COMPARISON TO ANGLO AMERICAN ENGLISH

By
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Dedication

This thesis is dedicated to my family,
Roy, Susan, and Kirk Ericson, and my fiancé, Joseph Gilroy.
Your wisdom, humor, patience, and support
have been, and will remain,
invaluable.

Biography

Holly Anne Ericson was born on January 10, 1984, during the course of her Dad's lunch break, in Fayetteville, North Carolina. She attended the University of North Carolina at Charlotte, where she graduated in three years with a Bachelor's Degree in English with a minor in technical and professional writing. While attending a linguistics class at NC State, she met Joe Gilroy, and they became engaged less than a year later. Holly and Joe will be getting married on June 9, 2007 in Raleigh, North Carolina and living somewhere down south where it's warm, accompanied by their vociferous Pomeranian, Woofy. With the completion of this thesis, Holly fulfills the requirements for a Master of Arts degree in English with a concentration in Linguistics.

Acknowledgements

First and foremost, I would like to acknowledge my parents, Roy and Susan Ericson, who instilled in me a love of learning and the importance of education from a very early age. I would also like to thank past and present English teachers, particularly Boyd Davis, whose love of language and literature has inspired me and countless others. Finally, I would like to thank Erik Thomas and Phillip Carter for their data collection in Pearsall, TX, and Walt Wolfram and Carmine Prioli for their guidance on the writing of this thesis, as well as teaching enjoyable classes. I would also like to extend an additional thank you to Erik Thomas, whose teaching and guidance have been essential to the success of this thesis.

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Chapter One

1.1 Introduction

Intonation plays a crucial role in verbal communication. Often, we pay more attention to how something is being said, rather than the words that are being used. For example, the meaning in the simple sentence, “You’re going to get it” can be drastically altered by suprasegmental features, namely intonation. It does not take a linguist to notice the dramatic effect a slight change in intonation can make; thankfully, however, a number of linguists have examined this linguistic feature. Kenneth Pike (1945: 22) asserts that “we often react more violently to the intonational meaning than to the lexical ones; if a man’s tone of voice belies his words, we immediately assume that the intonation more faithfully reflects his true linguistic intentions.” Although linguists have given some notice to intonation, most of the research has been focused on the speech of Anglos¹ (e.g. Cruttenden 1986, Beckman and Hirschberg 1994), which has been prescribed as the norm, and very little research exists on other ethnic groups (e.g. Tarone 1973; Loman 1975), especially those of lesser prestige, for comparison. In particular, the prosody of Mexican American English (MAE) has been largely overlooked. This thesis contributes to the discussion about Mexican American intonation and offers additional data and insight to fill this linguistic void.²

The few articles (e.g. Metcalf 1974, Wald 1984, Penfield and Ornstein-Galicia 1985, Santa Ana A. 1993) and fewer books (Fought 2003) that approach the topic of Mexican American intonation are a good start but need more precision and rigor. In past descriptions, intonation has been gauged, for the most part, impressionistically and expressed with simple

¹ Not to imply that Pike’s research on intonation was restricted to English only.

² In this thesis, I will use the terms Mexican American and Chicano interchangeably to refer to the same ethnic group. Although there has been some debate about proper terminology (see Martinez 1972) there is no official label assigned to this ethnicity.

line drawings and narrow number scales, when visuals were used at all. Although these transcription systems were legitimate for their time, there is a need to go beyond these early methods of intonational measurement and depiction in order to describe more accurately the characteristics of intonation and how it differs among groups of speakers. Discussing intonation, particularly Mexican American intonation, more precisely and in greater depth not only reveals new insights in the field but also, and just as importantly, adds credibility to this area of linguistic study.

With the help of modern transcription computer programs, such as Praat, linguists are now able to see pitch embedded within a spectrogram graphically – a step in the right direction away from the line drawings of the linguistic past. Praat is capable of displaying the fundamental frequency personalized for a broad range of speakers, as well as the speaker's intensity. Both of these abilities are helpful in determining the two intonational features addressed in this thesis: pitch accents and final contours

This thesis examines intonational patterns in both Mexican American and Anglo speakers to determine what characteristics of intonation distinguish the speech of these two dialects of English. In addition to finding these differences, I pose the greater question of what good can come from this knowledge. The data come from existing interviews conducted by Erik Thomas and Phillip Carter in Pearsall, Texas, and Erik Thomas and various NCLLP members in Hyde, Robeson, and Warren counties in North Carolina. Segments of each interview were analyzed using Praat and transcribed with the guidance of Beckman and Hirschberg's *The ToBI Annotation Conventions* (1994). Two-tailed t-test comparisons for unequal variance were applied to the data to test for significance. The results of this thesis reveal that MAE and Anglo English differ by at least two intonational

features—frequency of rising pitch accents and the types and frequency of final intonational contours.

Before I discuss the results of this research, it is necessary to give an overview of the relevant literature that discusses, however briefly, Mexican American intonation as well as other current articles that show where the study of intonation is headed. Then I will give a description of the geography, history, and people for both groups of speakers examined in this thesis. First I will discuss Hyde, Robeson, and Warren counties in North Carolina and then Pearsall, Texas. After setting the stage, I will be able to move into the methods used which led to interesting results, and finally a discussion and concluding remarks will follow.

1.2 Review of Relevant Literature

There have been several books in the past couple of decades (e.g. Cruttenden 1986; Gilles and Peters 2004; Jun 2005) devoted wholly to intonation. Cruttenden's *Intonation* (1986) claims to be the first textbook on intonation for linguists (xi), although it has been preceded by other linguists who have addressed the topic in detail (e.g. Pike 1945). It gives a thorough analysis of the form, function, and comparative aspects of intonation in British English and also mentions other languages in an attempt to broaden the relatively new linguistic discussion. The mention of other languages also illustrates the intonational differences found in languages and dialects of the same language, which can result in difficulty measuring and describing intonation.

Moving forward 18 years, Gilles and Peters (2004) have collected a variety of articles in *Regional Variation in Intonation* that give an overview of current research trends on regional variation in the intonation of European languages. In this compilation, they have included articles approaching intonation in dialects of English spoken in the British Isles,

Anstruther Scottish English, Swabian German, Swiss, Portuguese, Italian, Greek, and Bernese and Zurich German. This book also highlights the rising popularity of intonation:

A look at the *Proceedings of the International Congress of Phonetic Sciences* of 1995, 1999, and 2003 (Elenius & Branderud 1995, Ohala et al. 1999, Sole, Recasens & Romero 2003) shows that the proportion of intonational studies devoted to regional varieties increased from 10.5% in 1995 to 16% in 1999 and 21% in 2003. In other words, the proportion of regional studies in all intonational studies doubled within 8 years. (1)

Those statistics show that intonational studies are quickly on the rise, as they spread regionally and gain new ground. The papers in this book not only vary by content language but also by data collections (experimental speech data, Map Task data, spontaneous speech, etc.) and analysis methods.

Jun (2005) is a collection of articles contributing to the establishment of prosodic typology in *Prosodic Typology: The Phonology of Intonation and Phrasing*. Here 13 typologically different languages are discussed in terms of intonation and prosodic structure within the same theoretical framework, the Autosegmental-Metrical (AM) model of intonational phonology. As with Gilles and Peters (2004) anthology, the languages differ geographically from European languages, Asian languages, Australian languages, and one Native American language. The wide range of languages are all analyzed with the same prosodic model and transcription system, thus proving it is possible to examine different typological languages with one system. This book also argues that using a common system would make it easier to observe universal differences and accelerate our knowledge of prosodic typology. The first article in this collection, “The Original ToBI System and the Evolution of the ToBI Framework” (Beckman, Hirschberg, and Shattuck-Hufnagel) is especially relevant to this thesis, since it describes ToBI’s origin and application to various

dialects/languages, thus giving the original ToBI framework the name MAE_ToBI to signify Mainstream American English. The article explains that the ToBI conventions have to be modified to fit the intonational phonology of each language to which they are applied.

Besides entire books devoted to its study, there have been many more articles addressing varied aspects of intonation. Tarone (1973) was among the first linguists to write not only about intonation, but about the variety of “black English.” At the time it was written, Tarone noticed that “Intonation...is one of the suprasegmental features of black English that has not received much close examination in sociolinguistic research. Yet it appears to be one of the most important features for the communication of attitude in all social situations” (29). The intonation of whites and blacks differs to a noticeable degree (e.g. some black English phrases had more level and rising final pitch contours versus falling final contours in white speech) so that miscommunication could easily arise from misunderstanding attitude. Tarone’s study helped to shed light on these differences in an attempt to educate and in doing so, eliminate this miscommunication. Loman (1975) also contributed to the early discussion of AAE intonation with a study analyzing children’s conversation in Washington D.C.. This paper looks at intonation in conjunction with stress and how it differs from mainstream Anglo intonation.

Needless to say, African American English has not been the only dialect of English addressed in articles by linguists. In 1986 Guy et al. published “An intonational change in progress in Australian English.” During the time the study was conducted, many speakers of Australian were using high-rising intonation in statements, termed the Australian Questioning Intonation (AQI). While this trait was common in the working class of that time, real time data shows that the trait was almost non-existent twenty years prior. Guy et al.’s

research includes intonational features as further evidence for figuring out how and why languages change. McLemore (1991) also examines high rising intonation at the phrase-final boundary in the speech of sorority sisters. In this dissertation, she shows how intonation is used as a connective device rather than to signal uncertainty or nonfinality. New Zealand English has also been a popular area for intonational study in recent articles (Britain 1992; Warren 2005). Both of these papers classify rising terminals as an indicator of change as well as a feature of variation.

Although there has been some diversity in the study of intonation in English dialects, there have been few articles addressing Chicano English, and most of the articles that do exist provide only a surface level analysis or lament the difficulty in its study. In “An Analysis of the Linguistic Characteristics of the English Found in a Set of Mexican-American Child Data” (1972), Castro-Gingras examines bilingual data from sixty Mexican American children. In his findings, he briefly mentions intonation. His speakers were separated into four groups, based on their fluency in Anglo English. He explains that intonation is probably the feature responsible for separating the speakers between the first two groups³, and three patterns are noted as recurrent divergences. Here, the three patterns of variation are discussed within the confines of a single page, and the only visual explanation is a simple line drawing following the perceived pitch as illustrated in Figure 1.1. This is a good start at approaching intonation, but more precision and description are necessary to make intonation a credible variable.

³ Speakers in group 1 have English indiscernible from that of monolingual Anglo-Americans. Speakers in group 2 have speech that has slight differences from Anglo-American English but is probably unnoticeable by most non-linguists on their first encounter.

(20) Rising glides maintained even at the end of a neutral, declarative sentence, e.g. 'awake' in:

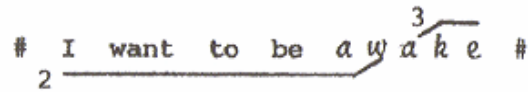


Figure 1.1 Example of Intonational Line Drawing, from Penfield & Ornstein-Galicia (1985).

In the early 1970s, Metcalf was a major facilitator of the Mexican American English discussion, including intonational aspects. In “Mexican-American English in Southern California” (1972), he addresses the lack of MAE study at the time. “Perhaps linguists...have neglected Mexican-American English because they see it as simply another case of native-language (Spanish) interference with second-language (English) learning—which it is not” (13). Towards the end of his paper, Metcalf briefly mentions that intonation is both the most interesting characteristic of MAE and the hardest to describe precisely. Two features he notices that differ from Anglo-American English are (1) separate peaks for loudness and pitch within a phrase and (2) a slower decline in pitch and loudness at the end of a declarative phrase. In his 1974 paper, “The Study of California Chicano English,” Metcalf relays that much progress has been made freeing Mexican-American speakers of English from their “language problem” myth, with the realization that it is more social than linguistic. At this point, researchers have begun to understand that an MAE speaker can be wholly and only fluent in English and does not need the assistance of a language program for second language learners. Unfortunately, though there has been progress socially, the discussion of Chicano English is still stagnant linguistically. Metcalf attributes this lack of progress to the perceived difficulty in studying this variety, which can be chiefly ascribed to intonation. He therefore urges linguists to make the study of ChE a first priority, as it would be not only interesting linguistically but helpful socially as well.

From the past studies that mention MAE intonation, however briefly, Penfield and Ornstein-Galicia's 1985 book makes a significant contribution. Here they devote an entire chapter to "Speech Aspects of Chicano English," considering intonation among other prosodic features, and also bring up the interesting question of whether or not MAE can be considered a separate dialect of English. The reason for the discrepancy is that "the uniqueness of ChE lies at the phonological level rather than the syntactic level" (35). I agree with Bills (1977) that MAE is a separate dialect of English, and it therefore has been treated as such in this paper.

Penfield and Ornstein-Galicia also describe four notable features for MAE intonation in the above-mentioned section: (1) "Rising glides at any point in an intonational contour to highlight or emphasize specific words...Rising glides maintained even at the end of a neutral, declarative sentence," (2) "Initial sentence contours begun above the normal pitch of voice," (3) "Rise-fall glides in sentence-final contours," and (4) "Declarative, neutral statements terminated with a one-pitch contrast" (1985: 37). These features were all considered in this study and give my research a solid starting point. In particular, the features concerning rising glides at the end of declaratives, rise-fall glides in sentence-final contours, and one-pitch contrasts terminals in declarative, neutral statements are addressed.

More recently, Santa Ana has written "Chicano English and the Nature of the Chicano Language Setting" (1993) which proposes a model for the language/dialect setting. This model would settle ChE controversies that Santa Ana attributes to the "multilingual complexity of the language contact setting" (3) (e.g. linguistic status of ChE and bilingualism) and at the same time be able to represent the diversity of Chicano English speakers. Although this paper does not explicitly mention intonation, its aim is to provide a

solution to a much debated matter, proving that at this point, the discussion about Chicano English is alive and under debate.

Carmen and John Fought have been among the greatest recent contributors to the study of Chicano English and ChE intonation. In 2003 Carmen Fought published *Chicano English in Context* which is the first modern, comprehensive study of the dialect. In the introductory remarks, Fought makes the valid point, “Although people of Latino origin make up the second largest (and fastest growing) minority in the USA, there has been very little sociolinguistic study of language and language change in Latino communities” (8). Intonation is addressed, and the previous idea that ChE intonation patterns may fall somewhere between American Anglo and Mexican Spanish patterns (Metcalf 1974) is explored. Fought and Fought have also recently written “Prosodic rhythm patterns in Chicano English” (unpublished typescript). This article discusses the prosodic rhythm patterns of ChE, an area which has received little attention compared to segmental phonetic and some syntactic variables. Subscribing to the belief that ChE intonation may fall in an intermediate zone, it is compared to both California English and Mexican Spanish. The notion that Chicano English is syllable-timed⁴ (like Spanish) rather than being stress-timed (like most dialects of English) is also explored.

This collection of literature pertaining to the study of intonation, Chicano/Mexican American English, and intonation in Chicano English has played a key role in the formation and analysis of this thesis. I will now shift focus to give a brief description of the field sites where interviews used in this thesis were collected.

⁴ In a *syllable timed* language, the rhythm of the sentence is divided by syllables receiving an equal duration. Spanish, Italian, and French are examples of *syllable timed* languages.

1.3 North Carolina Counties used in Data Collection

About half of the data used in this thesis comes from interviews conducted in Hyde, Robeson, and Warren counties in North Carolina. All of the interviews took place between 1981-2003, with the majority having taken place in the mid-to-late 1990s. Interviews were held in the informants' homes, places of employment, or other areas that were familiar and comfortable to the interviewee. Although all three counties are located in North Carolina, their geographical locations, histories, and populations are unique, and therefore, their language is affected.

1.3.1 The Geography, History, and People of Hyde County, North Carolina

Hyde County is located on the coast of North Carolina, partially surrounded by the Atlantic Ocean, the Pamlico Sound, and the Pungo, Alligator, and Long Shoal Rivers. Hyde County is made up of the mainland, accessible by road, and Ocracoke Island, an area of Hyde County accessible only by water or air. The landscape of Hyde County is full of swamps, farmland, beaches, creeks, forests, and lush vegetation. The county boasts of a natural setting full of wildlife and the sounds of nature. Figure 1.2 below maps where Hyde County is in relation to the rest of North Carolina.

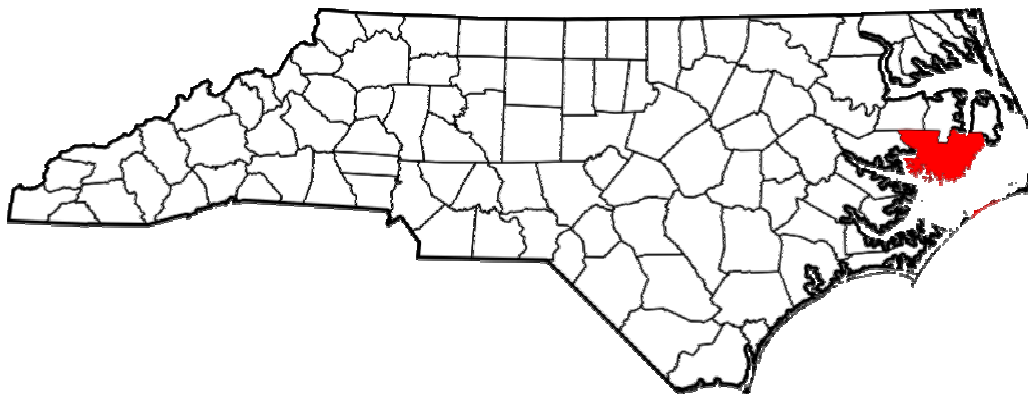


Figure 1.2 Map of North Carolina with Hyde County highlighted in red.

Hyde County, originally known as the precinct of Wickham, was formed from Bath County in 1705. The area, previously the village, Pomeiooc, was inhabited by various Algonkian tribes at that time. It didn't take long for Europe to gain interest in claiming this land, and as a result, disputes and eventually war took place. In 1711, the Tuscaora War broke out between the Indians and the settlers. The settlers, being victorious, pacified surviving Algonkians with the Mattamuskeet Reservation along the southeastern shore, but this was really just the beginning of the end for these Hyde County Indians. In 1712, Hyde County was renamed after Lord Proprietor Edward Hyde and officially became Hyde County in 1739 (Powell 2006). By 1761, the remaining Algonkians sold their reservation and either moved away or married non-Indians. In the nineteenth century, the mainland thrived, save for any unrest brought on by the Civil War, and experienced a "timber boom" in the latter part of the century. The twentieth century brought entrepreneurial farming (which has always been key to the county's success), two National Wildlife Refuges, and historic appreciation. Today, the mainland serves as an area for hunting, fishing, and farming, maintaining many of the traditions as when it was first settled (A Brief History of Hyde County 2006).

Ocracoke Island was first visited, briefly, by Europeans in 1585 and named Wocokon after a tribe of natives the settlers encountered. In Ocracoke's early years, it was inhabited by Native Americans, hardy pioneers, and pirates, perhaps the best known being the infamous Blackbeard. In the eighteenth century, people on the island helped commerce ships navigate safely from the mainland through inlets and sounds. In 1823 the Ocracoke Lighthouse was built to help guide ships through these difficult passages, and the beacon still stands today as North Carolina's oldest lighthouse. It wasn't until 1845 that Ocracoke Island was annexed to Hyde County (Powell 2006). The Cape Hatteras National Seashore was established in 1953

as the first national seashore. Today Ocracoke is home to a booming tourist industry for those who appreciate Ocracoke's interesting history, wildlife⁵, and scenic geography (A Brief History of Hyde County 2006).

According to the 2000 census, Hyde County consists of 62.65% White, 35.07% Black or African American, 0.31% Native American, 0.36% Asian, 0.84% from other races, and 0.77% from two or more races. 2.25% claim to be Hispanic or Latino of any race. Figure 1.3 below shows the ethnic distribution in Hyde County. Today, many of the people on the mainland and Ocracoke Island, Hyde County, claim to be descendants from the original settlers. Those living on the mainland have similar jobs and interests to that of the original pioneers centuries ago. Farming and commercial fishing are the predominant trades of mainland Hyde County. Some residents of Ocracoke also make a living by commercial fishing, but "Ocockers" rely heavily on the tourist industry in summer months as well. What appears to be a bustling town in tourist season dwindles to a close-knit community of 800 residents once vacationers go home for the season (A Brief History of Hyde County 2006). Many of the speakers interviewed from Hyde County held positions similar to the larger demographic of the mainland and Ocracoke; speakers were farmers and fishermen, and worked in family stores and small town businesses. They all also grew up in Hyde County.

⁵ Including a herd of Shackleford Horses

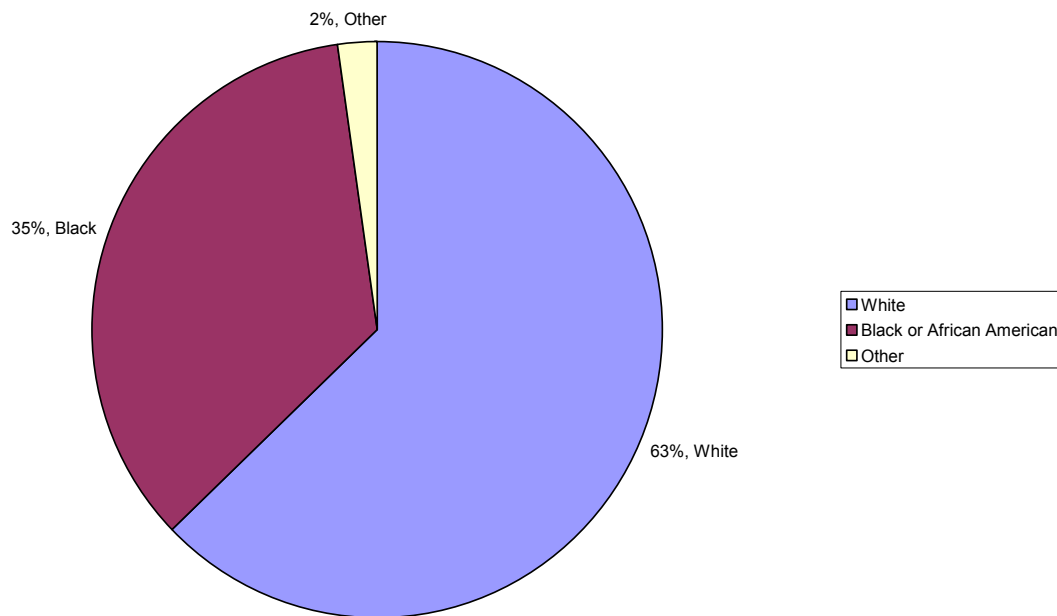


Figure 1.3 Ethnic Distribution of Hyde County, North Carolina

1.3.2 The Geography, History, and People of Robeson County, North Carolina

Robeson County is located in southern North Carolina along the South Carolina border. Although the county is landlocked, the Atlantic Ocean is accessible by an hour-and-a-half drive towards the east. The mountains can be reached by a three-hour drive to the west. Robeson County is North Carolina's largest county, spanning 951 square miles with only 2 square miles of water. The topography mostly consists of coastal plain and swampland. The county is perhaps best known for inhabiting the Lumbee Indian tribe, who live in what was once the densest area of swamp⁶ near the Lumber River (also known as the Lumbee River). Figure 1.4 below illustrates Robeson County's location in relation to the entire state of North Carolina.

⁶ Since then, much of the land has been drained.

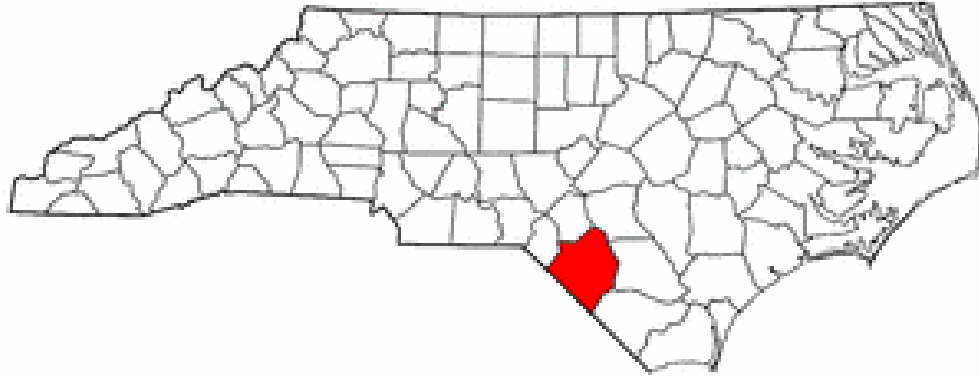


Figure 1.4 Map of North Carolina with Robeson County highlighted in red.

Robeson County, named for Colonel Thomas Robeson of the Revolutionary War, was formed in 1787 when it separated from neighboring Bladen County, but the county's human history can be traced back as far as the Ice Age. Archeological excavations have revealed tools and pottery which point to early and consistent settlement by a variety of Native American tribes. The presence of these tribes has set the foundation of Robeson County's history. As a result of the Yamasee War in 1712 and the Tuscarora War in 1715, additional Native Americans from the Waccamaw tribe in South Carolina moved north near what is now the town of Pembroke. Due to the fruitful vegetation, abundance of wildlife, and location of the Lumber River, Native Americans increasingly continued to populate the area. In the 1730s, Europeans recorded the presence of English-speaking Native Americans from the Tuscarora, Cherokee, and Cheraw tribes, as well as small groups who remained from other tribes. Slaves, both freed and runaway, were also recorded to have lived in the area (Brief History of Robeson County 2006). By the mid nineteenth century, the Robeson County demographic began to change as more white settlers moved into the area, forcing Native American tribes to live in interspersed areas among them. During this time, the predominant language of Robeson County was Gaelic, as decreed by the Highland Scots, although an abundance of both Native American and European languages could be heard.

The Civil War and associated changes in the political climate brought friction between the slave-owning whites and Native Americans. Despite hardship and racial prejudice, the Lumbee have remained in Robeson County, giving it the ninth largest population of Native Americans in the country, according to the 2000 census. Today, the Tuscarora and Lumbee Tribes still inhabit Robeson County (Who Are the Lumbee? 2006).

According to the 2000 census, Native Americans comprise the largest demographic (38.02%) in Robeson County, followed by White or European-American (32.8%) and Black or African-American (25.11%). Figure 1.5 below shows this distribution.

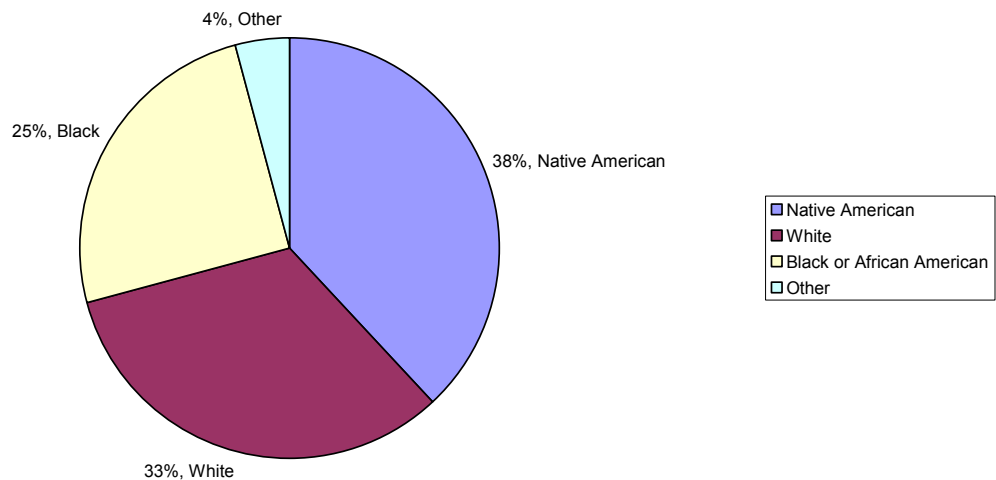


Figure 1.5 Ethnic Distribution of Robeson County, North Carolina

The nearly equal ethnic divisions make the area a truly multi-racial county, a characteristic it is well-known for throughout the state. Of these three populations, Robeson County is best-known for its Lumbee inhabitants. The Lumbee are a non-reservation Native American tribe who take their name from the Lumber River that flows through Robeson County. The majority of the tribe lives in Robeson County but members also live in neighboring Cumberland, Scotland, and Hoke Counties. The city of Pembroke, Robeson County, is the Lumbee's political, and economic development hub as well as the location of UNC-Pembroke, which was at one time the Croatan Normal Indian School. Although the state of North Carolina, as well as the US Congress, recognizes the Lumbee as an Indian tribe, they have been denied full status as a federally recognized and funded tribe due to the lack of a tribal treaty. Since 1888, the Lumbee have been fighting an ongoing battle with congress to

obtain full recognition status. Since this study compares the intonational patterns of Mexican Americans and Anglos, no Lumbees were interviewed for this thesis; however, the Anglo speakers used lived and grew up in and around areas inhabited by Lumbees in Robeson County.

1.3.3 The Geography, History, and People of Warren County, North Carolina

Warren County is located in the northeastern section of the North Carolina piedmont, along the Virginia border. It is bordered by Halifax, Northampton, Nash, Franklin, and Vance Counties. The Roanoke River stretches across the northeastern part of the county into Virginia. Kerr Lake is located in the northwest quadrant of the county and Lake Gaston is located in the northeast. The topography consists of rolling meadows, fields, and winding streams, which characterize that area of the state. Figure 1.6 below shows the location of Warren County in relation to the other counties in North Carolina.

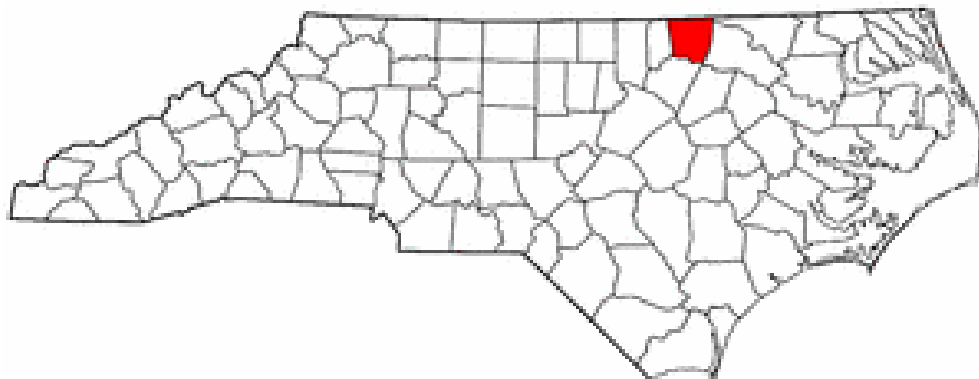


Figure 1.6 Map of North Carolina with Warren County highlighted in red.

Warren County was formed in 1779 during the American Revolution, and named for Joseph Warren, a general and doctor from Massachusetts who died fighting in the Battle of Bunker Hill. As soon as the county was settled, tobacco became the primary source of economic income. Other exports from the area were pork, beef, tar, turpentine, flax, and

hemp. In 1881, part of Warren County was annexed to neighboring Vance County. Warren County is proud of its historical heritage and has over fifty properties listed in the National Register of Historic Properties. The people of Warren County have not forgotten their past either; many can trace their ancestry back to founding families.

In more recent history, Warren County is home to Soul City, a “new town” planned by Floyd McKissick in 1969. Soul City was the first new town set up by African American business. The aim of the town was to create a self-sufficient community where residents could live, work, and receive schooling and other needs for multiethnic harmony. In 1972 Soul City received \$14 million dollars in grant money from federal funding, but even with government help, the town could not reach its initial aspirations.

According to the 2000 census, there are almost 20,000 people living in the county with 54.5% Black or African American, 38.9% white or European American, and Native Americans holding the next leading demographic with 4.79%. Figure 1.7 below shows this distribution.

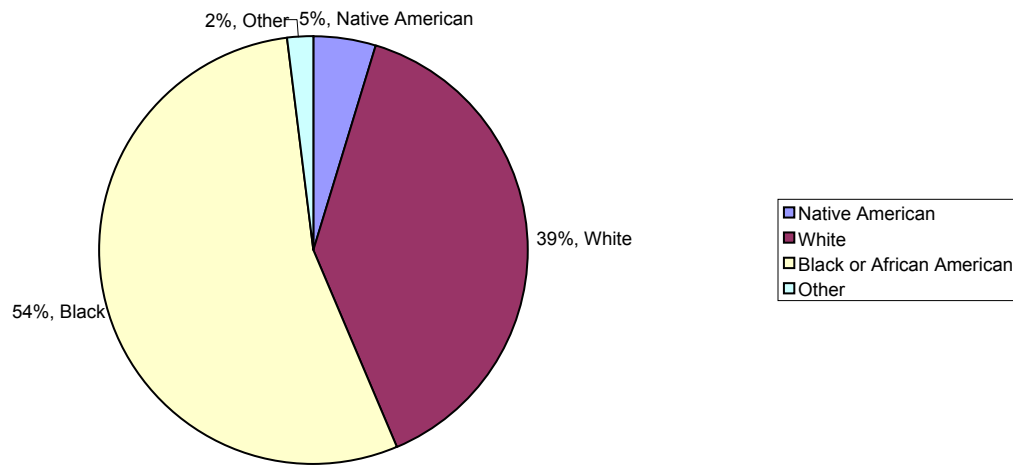


Figure 1.7 Ethnic Distribution of Warren County, North Carolina

The county is relatively impoverished now, although before Civil War, Warren County was among the wealthiest in the state, largely because of slaveholding value (Hazen 2000). Currently, the average household earns \$28,351 compared to the national average of \$41,994. Roughly 19.4% of the county was below the poverty line according to the 2000 statistics. Despite Warren County's humble resources, it has produced three North Carolina Governors, one Speaker of the House, three U.S. Senators, and two U.S. Congressmen.

The Anglo speakers from Warren County used in this study held job positions ranging from construction workers, students, and farmers to one who eventually became a government official. Their ages ranged from 12 to 88 years old.

1.3.4 Description of the Linguistic Environment

In addition to having disparate geographical locations, histories, and people in Hyde, Robeson, and Warren counties, the linguistic environments differ as well. Recent studies have examined the unique speech found in Hyde County (Green 1998; Wolfram, Thomas, and Green 2000; Wolfram and Thomas, 2002; Wolfram and Schilling-Estes 2006; Vadnais 2006; D'Andrea 2007) especially the speech on Ocracoke Island, which is located in the Pamlico Sound Dialect region. The county's insularity, a product of topography according to Green (1998), has helped to maintain a unique dialect. Although the dialect of the Anglo majority differs, mostly in subtle ways, from that of the African American minority (Wolfram and Thomas 2002), it is only the Anglo speech that is relevant to this study. Anglos in Hyde County speak a traditional coastal dialect containing southern features. Special attention has been given to the speech on Ocracoke, known as the Ocracoke Brogue, where the nucleus of /ai/ is more backed and raised so that it sounds closer to /ɔi/ (Wolfram and Shilling-Estes 2006). Ocockers also use lexical items (e.g.: *mommuck* and *quamish*⁷) retained from earlier versions of English. For this thesis, interviews were conducted on Ocracoke Island, where the dialect is considered moribund due to the influx of tourists changing the environment from marine-based to tourist-based (Wolfram 2000). Therefore, it would not be unusual for older speakers to retain features characteristic of the Ocracoke Brogue, while younger speakers working in tourist industries for portions of the year may incorporate features from other dialects and lose features from their own.

Most language studies conducted in Robeson County have been focused on the speech of the Lumbee (Wolfram and Dannenberg 1999; Coggshall 2006). Although there is

⁷ On Ocracoke Island, *mommuck* means "to harass or bother" and *quamish* means "sick in the stomach" (Wolfram and Schilling-Estes 2006). On mainland Hyde, *mommuck* more often means "waylay" and you hear *squamish* instead of *quamish*.

much to be said for dialectal features of this ethnic group, for the purposes of this thesis, it is most important to consider their co-habitation with Robeson County Anglos and what impact their dialects might have upon each other. Robeson County is located within the Southeastern Dialect region, known for traits such as the lowering of /e/ and /ai/ monophthongization (Thomas 2001; Labov, Ash and Boberg 2006). Southern English may also contain prosodic elements of the “Southern drawl” and exaggerated pitch accents on the initial syllable of particular words (Thomas 2005). Speakers in Robeson County may also use certain lexical items (e.g.: *mommuck* and *ellick*⁸). According to Sellers (2007), certain features of Robeson County Anglos are conforming to the Southern Vowel Shift model.

There has been the least research conducted on speech samples from Warren County (Wolfram, Hazen, and Tamburro 1997; Hazen 1997). Both of these studies examine the ethnolinguistic boundaries in Warren County, including frequency of lexical items of the three major ethnic communities in the county and also how age and gender affect dialect. Considering that Warren County is majority African American, there is expected to be some influence of AAE traits on the Anglo speakers⁹.

1.4 Pearsall, Texas

The Mexican American data used for comparison comes solely from interviews conducted in Pearsall, Texas, by Erik Thomas and Phillip Carter in 2005. A description of the geography, history, and people of Pearsall is below, followed by a description of the linguistic environment.

⁸ In Robeson County, *mommuck* means “to make a mess of” and *ellick* refers to a cup of coffee (Wolfram and Schilling-Estes 2006).

⁹ Unless there is a lot of stigma against AAE traits by the Anglo speakers.

1.4.1 The Geography, History, and People of Pearsall, Texas

Pearsall is located in southern Texas in Frio County. The nearest major bodies of water are the Gulf of Mexico to the east and the Rio Grande to the west. Pearsall is the largest city between Laredo and San Antonio. The location of Pearsall between the irrigated farmland and the semiarid brush and chaparral provides an interesting mix of plant life. Mesquite, huisache, whitehorn acacia, guajillo, and prickly pear cacti can be found in uncultivated land. A wide variety of irrigated crops thrive in the area's sandy soil, including corn, cotton, watermelons, pecans, tomatoes, and sweet potatoes, to name a few. Pearsall is best known for its abundant peanut crop – harvesting over 55 million pounds annually. Although, recently, the peanut business has declined since the federal subsidy program ended in 2002. They are home to the world's largest peanut (Pearsall Texas Chamber of Commerce 2007). Figure 1.8 below shows the location of Pearsall in relation to the state of Texas.



Figure 1.8 Map of Texas with Pearsall indicated by a red dot.

Pearsall was originally home to the Pachal Indians, a band of Coahuiltecans who were observed living with other tribes in that area between 1690 – 1708. These Native Americans left behind few archeological artifacts indicative of their way of life; we only know that they ate the fruit of the prickly pear cactus. In 1685, the French explorer La Salle came to the area by means of the Frio River. From that point forward, pioneers used the river as a means to Pearsall as well as a passageway to San Antonio.

In 1881 the first passenger train arrived in town for the sale of lots by the International Great Northern Railroad (IGNR). It was then that the town officially received the name of Pearsall, for Thomas W. Pearsall, a vice-president of IGNR. Once the railroad came to town, most of the residents from the nearby Frio Town, the former county seat,

moved to Pearsall to be closer to the railroad. The railroad also helped Pearsall gain the status of county seat, and in 1909, achieve city rank.

The hobbies and occupations of the residents of Pearsall reflect the environment. The city's location in "The Golden Triangle" makes it an ideal hunting area, known nationally as "The Hunter's Paradise," and home to the world's largest Trophy Whitetail Deer. Deer, hogs, turkey, quail, and other exotic game roam the rolling plains, attracting hunters from all across the nation. The warm climate and sandy soil also make Pearsall home to many farmers and ranchers (predominately beef and hog). During the busy harvesting months, people come from all over in search of work. Considering the abundance of farmers, ranchers, and hunters, it is not surprising that 70% of Pearsall's labor force has a trade or vocational background. The population is predominantly Hispanic (84.2%) followed by White (14.4%), according to the 2000 census. Figure 1.9 below shows this distribution.

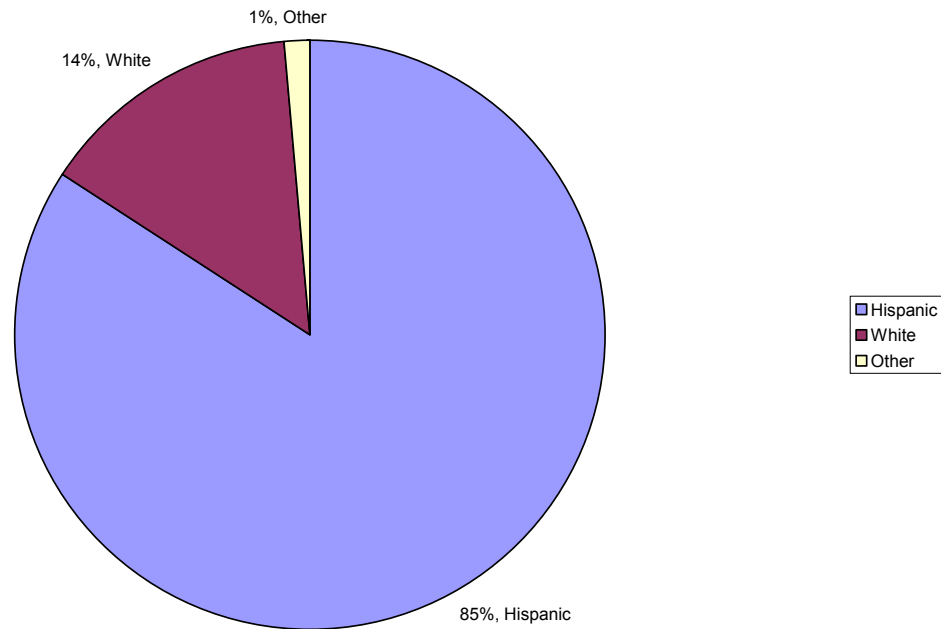


Figure 1.9 Ethnic Distribution of Pearsall, TX

Pearsall's longstanding Hispanic majority makes it an ideal community to gather Mexican American data from. Most of the speakers analyzed in this thesis were born and lived their whole lives in and around the Pearsall area. Typical of Pearsall residents, many speakers had vocational or trade skills as well as military experience.

1.4.2 Description of the Linguistic Environment in Pearsall, TX

Pearsall, Texas, is an interesting environment not only geographically, historically, and socially, but also linguistically. It is a longstanding Mexican American majority community whose language is currently characterized by shift. The oldest living generation is Spanish-dominant, while the youngest generation is decidedly English-dominant. Older residents either immigrated from Mexico or lived with families who spoke Spanish as their primary language. This follows the typical pattern of first generation immigrants speaking

their native language, the second generation speaking both the native and dominant language, and the third and fourth generations making the transition towards the nation's dominant or official language as their primary language also (Myers-Scotton 2006). Since this thesis examines speakers from a broad age spectrum, both older Spanish-dominant and younger English-dominant speakers are interviewed.

Chapter Two

2.1 Methods of Data Collection

For this study, data were analyzed from existing interviews taken in Pearsall, Texas, and Hyde, Robeson, and Warren counties in North Carolina. Segments from each interview were extracted using Praat and then viewed on spectrograms in Praat for analysis. An adapted version of the ToBI transcription system was used to transcribe for two intonational features. The following two sections describe the speakers and the transcription methods that were used.

2.1.1 Participants

Since the aim of this thesis is to compare the intonation of Mexican Americans versus that of Anglos, four groups of speakers are necessary for comparison: Mexican American males and females, and Anglo males and females. Ideally, ten speakers were transcribed for each cell, but due to circumstances of limited interviews, poor recordings, and a lack of typed transcripts, most cells did not reach full capacity. However, the results from each group proved to be sufficient for gathering sound data. A total of 32 speakers were analyzed for this study (9 Mexican American females, 6 Mexican American males, 9 Anglo females, and 8 Anglo males). A list of the speakers appears in Table 2.1 below.

Table 2.1 Speaker list, including community, ethnicity, year born, and sex.

Community	Ethnicity	Year Born	Sex	Initials
Pearsall, TX	Mexican American	1918	F	ET
Pearsall, TX	Mexican American	1926	F	CV
Pearsall, TX	Mexican American	1941	F	YT
Pearsall, TX	Mexican American	1942	F	NL
Pearsall, TX	Mexican American	1951	F	AG
Pearsall, TX	Mexican American	1968	F	SC
Pearsall, TX	Mexican American	1987	F	FM
Pearsall, TX	Mexican American	1989	F	CC

Table 2.1 (continued)

Pearsall, TX	Mexican American	1937	M	RC
Pearsall, TX	Mexican American	1938	M	PE
Pearsall, TX	Mexican American	1965	M	TC
Pearsall, TX	Mexican American	1970	M	RC Sr.
Pearsall, TX	Mexican American	1987	M	PR
Pearsall, TX	Mexican American	1988	M	BJC
Warren County, NC	Anglo	1906	F	ED
Hyde County, NC	Anglo	1912	F	QO
Robeson County, NC	Anglo	1922	F	SL
Robeson County, NC	Anglo	1927	F	ALL
Hyde County, NC	Anglo	1964	F	BB
Hyde County, NC	Anglo	1966	F	PC
Warren County, NC	Anglo	1978	F	AC
Robeson County, NC	Anglo	1978	F	KR
Warren County, NC	Anglo	1982	F	LC
Hyde County, NC	Anglo	1896	M	HG
Warren County, NC	Anglo	1907	M	ET
Hyde County, NC	Anglo	1910	M	MC
Robeson County, NC	Anglo	1915	M	JAA
Hyde County, NC	Anglo	1970	M	JE
Hyde County, NC	Anglo	1973	M	JB
Robeson County, NC	Anglo	1973	M	PM
Warren County, NC	Anglo	1975	M	SM

As stated earlier, interviews from Pearsall, Texas, were conducted by Erik Thomas and Phillip Carter in 2005. The interviews were conversational and conducted in both Spanish and English. For this study, only the English interviews were analyzed. Interviews from the three North Carolina counties were conducted by Erik Thomas and various NCLLP members between 1981 and 2003, with the majority taking place in the mid-to-late 1990s. Five minute sections from each interview were extracted (typically the second five-minute segment of the interview) using Praat, and then analyzed using a stripped-down version of ToBI.

2.1.2 ToBI Transcription (and adaptation)

ToBI transcriptions contain tone and break index information that is helpful in assessing characteristics of intonation. A complete ToBI transcript contains four tiers: orthographic, tone, break index, and miscellaneous. Annotation symbols consisting of letter, numbers, and other characters are the language used to describe what is happening in the transcript. Since a full ToBI transcription involves examining hundreds of pitch accents and boundaries for dozens of speakers, it proves to be very time consuming. As a result, a full ToBI transcription is impractical for this sort of survey so a short-hand transcription system was used to mark pitch accents and intonational contours. Over 120 hours were spent transcribing with this short-hand system; conducting a complete ToBI transcription would not only be unnecessary but too time-consuming for this sort of study.

Pitch accents were the first feature to be transcribed. On an orthographic copy of the interview, high (H*) and rising accents (L+H*) were marked with pencil. Downstepped high and rising tones were signified with (!). Other types of accents were ignored, as well as boundary tones and break indices, because they were not necessary for this analysis. Next, intonational contours were marked on the same orthographic copy containing the pitch accent marks. Final contours were measured at the end of each intonational phrase and assigned one of three annotations: L-L%, H-L%, or L-H%. ToBI includes a fourth final contour annotation (H-H%), but due to its rarity in the interviews, this choice was eliminated from the results. Table 2.2 lists the annotation symbols and their meanings below. This minimalist approach is necessary to make study feasible for sociolinguistic studies.

Table 2.2 ToBI Annotation Symbols used in this study along with their meanings.

ToBI Annotation Symbols	Meaning Of Symbol
H*	Peak accent; in the upper part of the speaker's range
L+H*	Rising peak accent; an upward glide from the lower part of the speaker's range to the higher
(!)	Downstepped; a "step" below the preceding accent
L-L%	Normal "declarative" contour of Anglo American English; ends by falling to a low point in the speaker's range
H-L%	Final level plateau; final contour ends within an even range
L-H%	Continuation rise; similar to L+H*, finishes with an H boundary tone preceded by an L accent

It should also be noted that questions (yes/no and wh-) were excluded, as were any Spanish lexical items (as indicated by phonological patterns). The reason for this extraction is that both interrogatives and Spanish intonational patterns could skew the data of this study. Once the transcripts were completed, the results were tabulated on each orthographic copy and then stored in an excel spreadsheet. In addition to impressionistic significance, the results were run through tests to check the validity of their quantitative significance. The results are discussed in the following section.

2.2 Results

The results of this study reveal that Mexican American English intonation and Anglo English intonation differ in at least two distinct ways— differences in frequency and types of pitch accents as well as final contours. This study also found noticeable differences in fundamental frequency continuity. The following sections will describe the findings pertaining to the first two features, including quantifiable analysis. The third feature will be briefly mentioned also, but since it was not one of the two variables expressed in initial research, there are no quantitative results to corroborate this finding.

2.2.1 Pitch Accents

Differences in pitch accents between Anglo Americans and Mexican Americans can be spotted impressionistically, but measuring them with an acoustic computer program such as Praat and labeling them under the guidelines of ToBI strengthens the findings. Both high peak accents (H^* and $!H^*$) and rising peak accents ($L+H^*$ and $L+!H^*$) were counted, and the scores were checked for significance. A two-tailed t-test comparison of unequal variance for Texas Mexican Americans and North Carolina Anglos scores yielded a significance level of $p=0.007508$ ($df=30$, $t=2.04227$), so this finding proves to be rather significant. In this t-test, the proportion of rising pitch accents per each speaker's total pitch accents was compared by group, where each speaker represented a token. Figure 2.1 below, illustrates the proportion of rising pitch accents for both the Anglo American group of speakers as well as the Mexican American group.

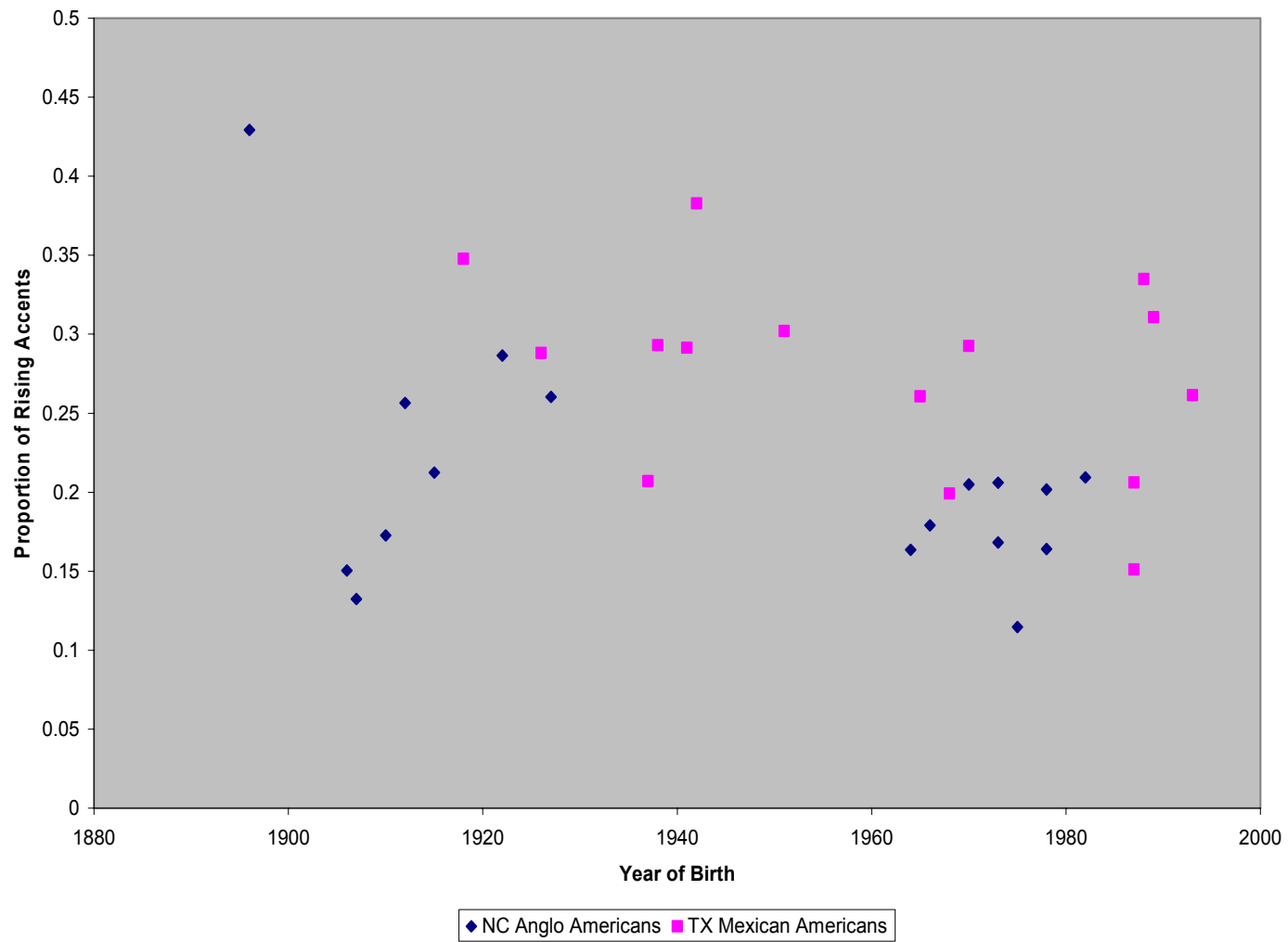


Figure 2.1 Chart illustrating the proportion of rising pitch accents for both NC Anglo Americans and TX Mexican Americans in relation to year of birth

As illustrated by the chart above and confirmed by the t-test, Mexican American speakers tend to show higher proportions of rising pitch accents than Anglo American speakers. The proportion of each speaker's rising pitch accents is shown in relation to their year of birth, primarily to clearly present the data, but it also points to possible group identity markers (see section 3.1.1). Future studies may wish to represent their data in relation to speaker's length of residency, but since all of the Mexican American speakers spent their entire lives in Pearsall (or close to), this option will not work to display the results of this study. Comparing speakers by age also indicates that there is a bit of a split between some of the Mexican American speakers, with some showing higher values and others showing lower. This will be mentioned briefly in the Discussion section of Chapter Three (3.1.1). Finally, the placement of markers on the chart shows that there were some exceptional speakers who did not fall neatly into their dialect's typical categories. Some of these exceptions are readily explicable (see section 3.1.2), but not all.

2.2.2 Final Contours

Final contours are another impressionistically discernable trait that differ between Anglo Americans and Mexican Americans. Again, Praat and ToBI lend credibility to the results found in this study. Final contours were measured at the end of each intonational phrase and assigned either L-L%, H-L%, or L-H%. Analyses of the first two final contour types will be reported, but the third did not yield significant results. The first type of final contour, L-L%, is described as having the same prosody as a basic declarative sentence in mainstream Anglo English. With this in mind, it was impressionistically expected that the Anglo American group of speakers would produce a higher percentage of L-L% final contours than the Mexican American group. A two-tailed t-test comparison of unequal

variance for Texas Mexican American and North Carolina Anglo scores yielded a significance level of $p = <0.00001$ ($df=19$, $t= 2.09302$), so this finding proves to be highly significant. In this t-test, the proportion of L-L% final contours per each speaker's total final contours was compared by group, where each speaker represented a token. Figure 2.2 below shows the distribution of L-L% final contour distribution per speaker.

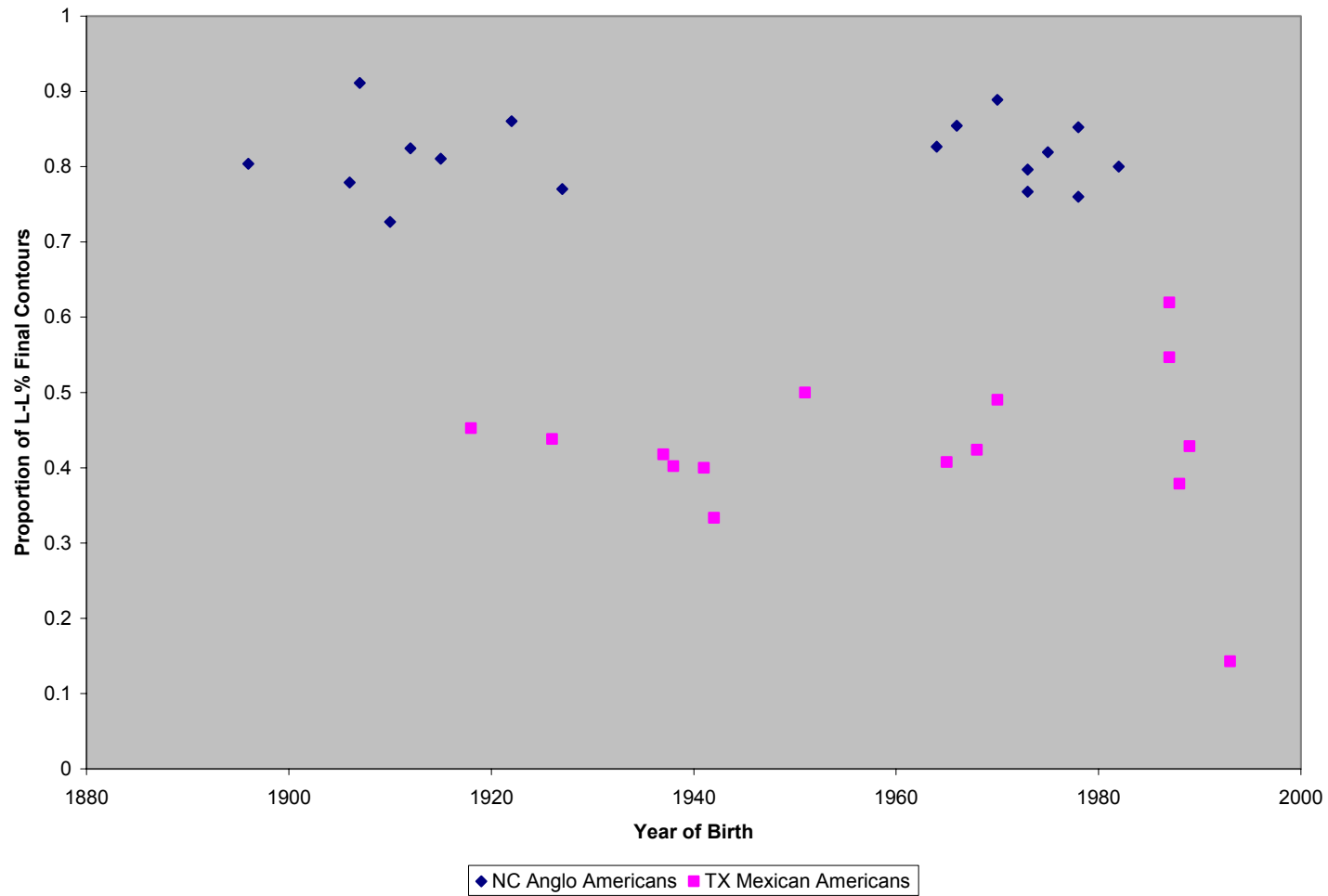


Figure 2.2 Chart illustrating the proportion of L-L% final contours for both NC Anglo Americans and TX Mexican Americans in relation to year of birth.

As illustrated by the chart above, again shown in relation to age, the proportion of L-L% final contours per speaker divide neatly by dialect. The next type of final contour, H-L%, show a similar differentiation. These final contours are described as a final plateau and were expected to yield higher scores by Mexican American speakers. Figure 2.3 below shows the distribution of this final contour per speaker.

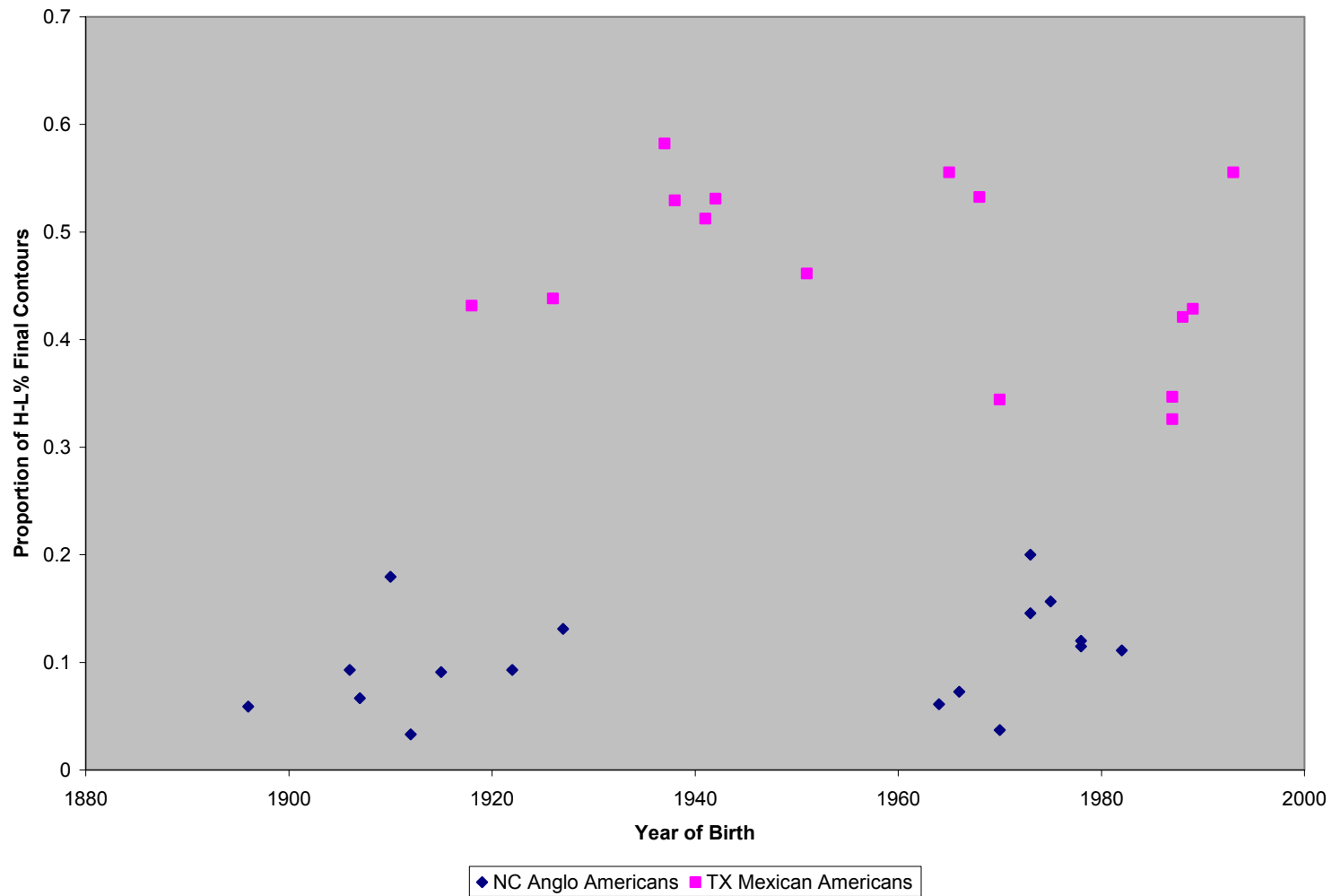


Figure 2.3 Chart illustrating the proportion of H-L% final contours for both NC Anglo Americans and TX Mexican Americans in relation to year of birth.

As the chart illustrates, this final contour also divided neatly by dialect. A two-tailed t-test comparison of unequal variance for Texas Mexican American and North Carolina Anglo scores yielded a significance level of $p = <0.00001$ ($df=22$, $t= 2.07387$), so this finding proves to be highly significant as well. In this t-test, the proportion of H-L% final contours per each speaker's total final contours was compared by group, where each speaker represented a token.

2.2.3 Fundamental Frequency Continuity

The third feature, difference in fundamental frequency continuity, accounts for one of the distinctions that can be heard quite easily impressionistically. A typical Mexican American F_0 pattern shows relatively smooth contours, without much discontinuity, which can be heard in conversational speech. The spectrogram picture below, extracted from Praat, illustrates this phenomenon.

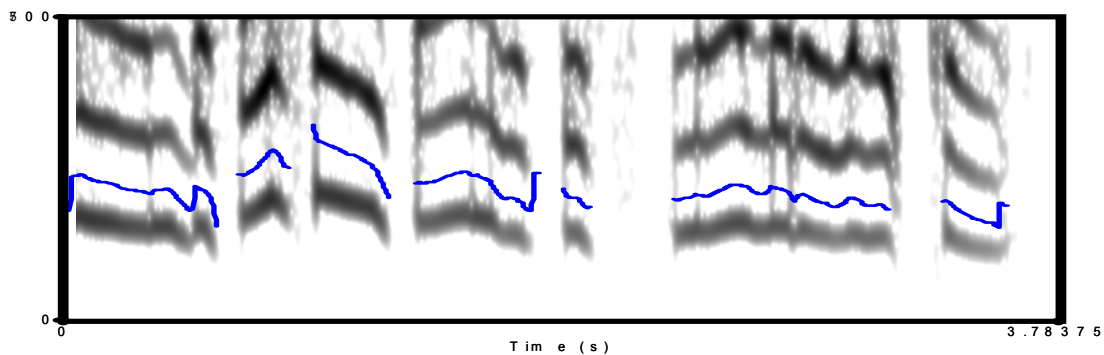


Figure 2.4 Typical Mexican American F_0 Pattern
 “And the first one we found was this small, little, white crab.”

In contrast, Anglos commonly show a jagged F_0 pattern, with considerable discontinuity, especially before pitch accents. Figure 2.5, below, illustrates this distinction:

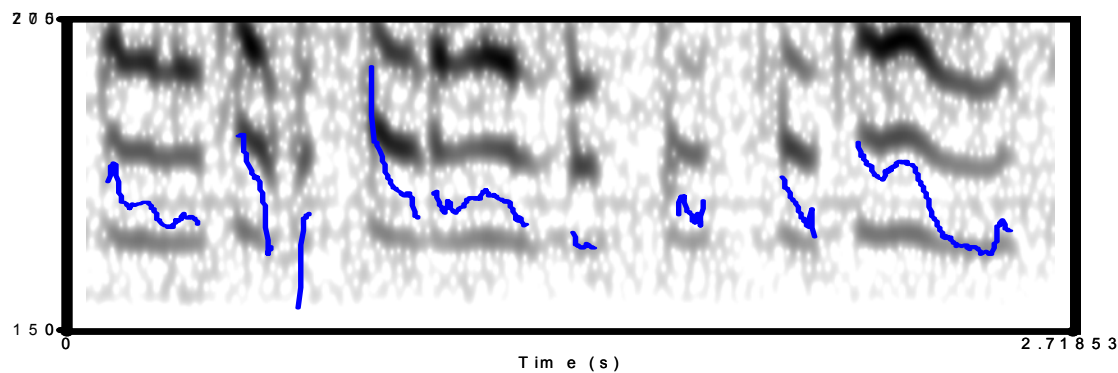


Figure 2.5 Typical Anglo American F_0 Pattern
 “And when they take the schools out o’ the- these two towns...”

As indicated in these two spectrograms, there is a noticeable difference in the continuity levels of fundamental frequency. This trait, expressed audibly in terms of pitch, is easy for any listener to hear. Past studies have alluded to this feature indirectly by mentioning the abundance of rise-fall glides through out neutral declarative sentences, but here Praat provides a more detailed visual than the previous line drawings could depict. The results of this thesis verify previous studies that suggest that Mexican American English and mainstream Anglo English differ both impressionistically and quantifiably. No doubt, the features previously described are only three of many distinct variables that exist between the two dialects. In Chapter Three below, there will be a discussion of these findings including a possible reason for the split in rising pitch accents in Mexican Americans as well as an explanation for some of the displaced Anglo speakers in the pitch accent results.

Chapter Three

3.1 Discussion

The results of this study confirm past research that intonation differs between Mexican American English and Anglo American English in a variety of ways. With the help of Praat and ToBI transcription, the results of this study have been given additional credibility, although they are not without fault. In the following sections, the results of this study will be summarized with an effort to explain speakers who did not fall neatly within their dialectal groups. There will also be suggestions for a more precise annotation system. Finally, concluding remarks and implications of this thesis will be discussed.

3.1.1 Summary of Differences

The data analyzed provide at least two quantifiable differences that exist in intonation, as well as another difference documented with Praat spectrograms. The first way that Mexican American English and Anglo American English differ is by the type and frequency of pitch accents. Mexican American speakers have significantly higher proportions of rising peak accents than high peak accents compared to Anglo American speakers. Although the results of the t-test show that this difference is significant, the data do not divide as neatly as for the second feature, final contours. I could speculate that this split between Mexican American speakers with higher and lower proportions of rising pitch accents indicates this as a group identity marker, but without further knowledge about the speakers' personal lives, I feel it is premature to do so; however, this would be an interesting area to conduct further research. The second feature, final contours, reveals two ways that Mexican American and Anglo American intonation differ. There is a clear division between the proportions of L-L% and H-L% final contours used per dialect. Although this difference

in dialects could be spotted impressionistically, comparing quantifiable data gives the results additional credibility. Finally, the third feature, fundamental frequency continuity, as mentioned previously, was not intended to be an area of research for this paper, however, the noticeable variation was impossible to omit. This feature, perhaps, summarizes all other minute aspects of intonation into the recognizable prosodic flow of the dialect.

I believe that these differences, and unquestionably many others like them, help to establish Mexican American English as an autonomous dialect, wholly distinct from Anglo American, or any other variety, of English. These differences in intonation also strengthen the argument for using intonation as a variable in linguistic analysis. In the process of completing this thesis, much significant data has been collected, analyzed, and summarized in an effort to fill the gap of research for both Mexican American English and intonational research. There is a need for other linguists to expand upon this and other existing research in order to give these linguistic areas the attention they deserve and need. As I mentioned before, it is important to develop sound arguments, so that these areas are taken seriously. A good way to ensure a solid foundation is using a quantifiable system to conduct analysis. Although ToBI has been extremely helpful in analyzing the intonation of the speakers in this thesis, the following section offers suggestions for improving this system.

3.1.2 The Need for a More Precise Annotation System

While ToBI has been vital to determining the results of this thesis, I could not help but notice a few flaws with the system. To put it as simply as possible, ToBI (now referred to as MAE_ToBI) has rather general annotation symbols that fit typical mainstream English. There is a need for annotation symbols to be more precise in order to convey the most accurate depiction of what is happening within an utterance, intonational phrase, or any other

unit of speech. Although the need for greater precision was seen in transcribing for both pitch accents and final contours, it was more of an issue for pitch accents.¹⁰ The following example shows ToBI's failure to recognize nuances in pitch accents.

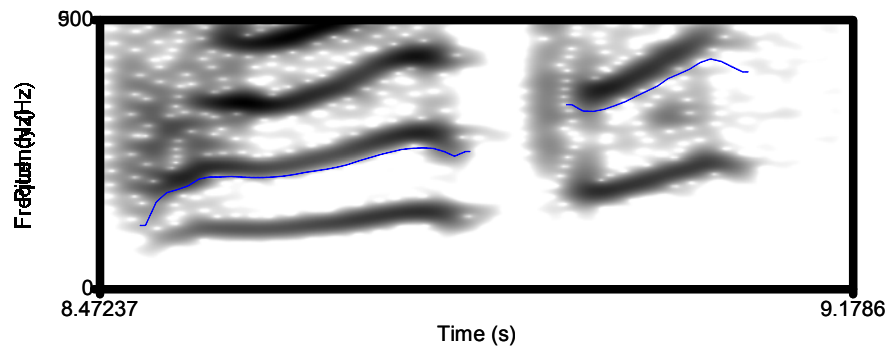


Figure 3.1 Narrowband Spectrogram of Mexican American Speech “walking”

Figure 3.1 shows a narrowband spectrogram typical of a rising pitch accent found in Mexican American speech. In this example, the speaker begins the word “walking” in the lower portion of his register, and his pitch rise-glides to his upper portion in the second half. According to ToBI annotation conventions, this intonational pattern would receive L+H* and be tabulated for a rising pitch accent. Where a problem arises can be seen in Figure 3.2 below.

¹⁰ It is possible that ToBI does address these nuances within the system, but I am unaware of differential conventions. Regardless, these distinctions need to be illustrated more clearly and stated explicitly in the guide to ToBI.

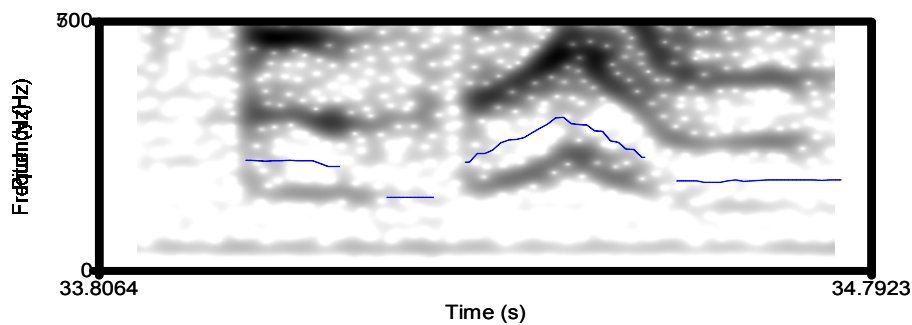


Figure 3.2 Narrowband Spectrogram of Southern Anglo Speech
“...they said I...”

Figure 3.2 shows a narrowband spectrogram of Southern Anglo speech found in the phrase, “...they said I...” In this phrase, “said” begins at a midpoint in the speaker’s pitch range, rises in the middle of the word, and then falls back close to the original starting pitch. In ToBI annotation conventions, this pitch activity is also assigned L+H* and should be tabulated as a rising pitch accent. Although both examples are tabbed in the same group, they sound quite different and look different as well. This “Southern drawl” is one feature that could account for some of the exceptional cases illustrated on the chart in Figure 2.1. Several speakers in the Anglo American group of this study have a strong Southern drawl which affected their pitch accent scores. Many of the Anglo speakers in Figure 2.1 who displayed higher proportions of rising pitch accents (particularly the speaker in the upper left quadrant) earned their spot as a result of ToBI’s failure to make a distinction between the Southern drawl pattern of a rise followed by a fall and the pattern of a rise without a fall, which was more typical of Mexican Americans.

3.2 Conclusions and Implications

The data from this study show that MAE intonation differs from Anglo intonation in at least two ways: frequency and type of rising pitch accents and final contours. It also inadvertently proves that intonation certainly can be used as a quantifiable sociolinguistic variable—the main obstacle is simply knowing what to look for. Thanks to the guidance of existing literature, this study had an already charted course to follow—this time with more precision and rigor. A stripped-down ToBI transcription adopted for the needs of sociolinguists in conjunction with Praat were also vital tools in this study. The elements of insightful past literature and modern transcription tools were crucial to the success of this study.

Although the data did include some outliers, for the most part the two dialects formed discrete groups. The issue of labeling the “Southern drawl” accounts for some of the exceptions, and I believe this could be remedied with more precise ToBI annotation symbols. There should be separate annotations for intonation that rises and remains at a peak level than that used to symbolize intonation that rises but then directly falls. There was also a split in the proportion of rising pitch accents for younger Mexican American speakers. This data suggest that rising pitch accents could potentially be a group identity marker within the Mexican American community, but further research is needed before anyone can make this claim.

While results from this study agree with findings of previous studies that Mexican American intonation varies both impressionistically and quantifiably from Anglo intonation, this study is by no means without flaw. A larger data set, improved ToBI annotation conventions, and knowledge of the speakers’ projected identities and values would all

contribute greatly to further studies. The results of this study contribute to the understanding of Mexican American English and to the comparative examination of intonation based on natural conversation. The research area of MAE intonation leaves many questions to be answered and is a promising field for further research. I do, however, suggest that further research in intonation studies be conducted quantitatively as well as qualitatively. The concept of using intonation as a variable is still relatively new and undeveloped enough that it is imperative to establish a firm foundation, especially when trying to earn credibility with a minority dialect group like Mexican American English.

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