Spring 4-14-2018

FRESA STYLE IN MEXICO: SOCIOLINGUISTIC STEREOTYPES AND THE VARIABILITY OF SOCIAL MEANINGS

Rebeca Martinez Gomez
University of New Mexico - Main Campus

Follow this and additional works at: https://digitalrepository.unm.edu/ling_etds

Part of the Anthropological Linguistics and Sociolinguistics Commons, Critical and Cultural Studies Commons, Latina/o Studies Commons, Linguistic Anthropology Commons, Modern Languages Commons, Phonetics and Phonology Commons, Psycholinguistics and Neurolinguistics Commons, Race and Ethnicity Commons, Social Psychology Commons, and the Spanish Linguistics Commons

Recommended Citation

This Dissertation is brought to you for free and open access by the Electronic Theses and Dissertations at UNM Digital Repository. It has been accepted for inclusion in Linguistics ETDs by an authorized administrator of UNM Digital Repository. For more information, please contact disc@unm.edu.
Rebeca Martínez Gómez  
Candidate  

Linguistics  
Department  

This dissertation is approved, and it is acceptable in quality and form for publication:  

Approved by the Dissertation Committee:  

Christian Koops, Chairperson  

Jill P. Morford  

Paul Edmunds  

Richard File-Muriel
FRESA STYLE IN MEXICO: SOCIOLINGUISTIC STEREOTYPES AND THE VARIABILITY OF SOCIAL MEANINGS

by

REBECA MARTÍNEZ GÓMEZ

2008 Bachelor of Arts, University of Guadalajara, Hispanic Literature
2010 Master of Arts, University of New Mexico, Spanish and Portuguese

DISSERTATION

Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy
in
Linguistics

The University of New Mexico
Albuquerque, New Mexico

May, 2018
Porque de él, y por él, y para él, son todas las cosas.

A él sea la gloria por los siglos.

Amén.
ACKNOWLEDGMENTS

First, I want to praise God for allowing me to finish this dissertation while walking on water. The last two years have been the hardest, yet the most fascinating ones of my life. He is the one who makes impossible things possible. He is my source of inspiration and strength. I thank Him for providing me with so many loving people that surrounded me throughout this process.

Le doy gracias a Él por la vida de mi esposo, Dr. Hugo García Macías, y de nuestro hijo, Isaac, quienes fueron mi apoyo y mi felicidad durante estos años de trabajo. Mi trabajo de campo no hubiera sido lo mismo sin su compañía. Gracias a toda mi familia en México que me apoyó incondicionalmente: mi suegra Carmen, mis cuñados Jessica y Erubey, mi prima Angélica y “los gemelos”, mis tíos Adriana, Mary, Carlos y Maricela. A mi madre Isabel, algún día le diré que no le hice caso (¡me dijo que no escogiera un tema difícil para la tesis!) pero que de todas formas acabé. También gracias a todos los que me apoyaron en Guadalajara en la recolección de datos: a todos mis participantes, al prof. Daniel Barragán Trejo, al prof. Alfredo Orozco y al comunicador Juan Fabián.

Mis amig@s: Carmen Julia Holguín Chaparro, Josefina Bittar (¡y sus helados de chocolate en momentos de desesperación!), Majed Abduallah, Yuliana Kenfield, Joan Wilson, Dr. Melvatha Chee, Dr. Aubrey Healey, Dr. Jackelyn Van Buren, and Dr. Maryam Alhinai, I could not have finished without your cheering. And to my prayer warriors: Margaret Martinez, Carmelita Martinez and Cynthia Nuttall, thank you for lifting me up!
I would like to thank the following institutions that partially supported my doctoral studies: National Council for Science and Technology (CONACYT), the Latin American and Iberian Institute, and the Office of Graduate Studies at UNM. Also, gratitude is extended to the Department of Spanish and Portuguese of UNM for providing me with financial support through a teaching assistantship during most of the completion of my doctoral studies.

I also want to acknowledge the Graduate Resource Center at UNM and the great people that with love and compassion serve students. Particularly, I want to thank PhD candidate José Bucheli, who poured out an immense amount of time and grace to help me with statistics.

One thing that amazes me in academia is when a professor who is not obligated to serve you does it, and does it with a joyful heart: Prof. Stephen Alley, you are the one who did this in my path. Your class on social psychology and your insightful conversations with me were the inspiration for Chapter 5 of this dissertation. I will always be grateful to you for sharing your knowledge and humanity with me.

Finally, this work would not have been accomplished without the inspiration and guidance of my advisor, Dr. Christian Koops. He was the reason I decided to pursue sociolinguistics, and this topic in particular. Thank you so much for investing your time and expertise, and for believing in this project. Thanks to the rest of my committee, Dr. Jill Morford, Dr. Paul Edmunds, and Dr. Richard File-Muriel, for their support—technical and emotional—and for encouraging me to stay in this until the end.
ABSTRACT

This dissertation examines the flexibility in the social meanings of sociolinguistic stereotypes and how linguistic and non-linguistic information affect these meanings. The investigation consists of four empirical studies surrounding the case of fresas in Mexico – members of the upper class that are perceived as using a unique linguistic style.

Study 1 investigates the linguistic and non-linguistic characteristics associated with the fresa stereotype. Through a qualitative analysis of 64 webpages and 3 performances of the style, it is shown that fresas are perceived as the counterpart of another construct, nacos, and that their linguistic style is linked to English due to various lexical, segmental and prosodic elements. Study 2 focuses on the production of rising contours at the end of declarative sentences as a feature of the fresa style. Study 3 explores the possibility of these rises index a fresa persona. Using data from a Mexican conversational corpus, an acoustic analysis reveals that there are two types of rising contours produced in declarative sentences, one of which has a steeper f0 slope and is perceived as fresa style. The results of study 3 suggest that, while the steep rise may not directly index the social category of fresa, it can still be heard as a feature of this linguistic style. Finally, Study 4 investigates how visual appearance affects the social meanings fresa and naco. 97 Mexican subjects socially categorized individuals on a fresa-naco scale based on a photo and a short audio clip. The 12 photos and 12 audio
clips used as stimuli were paired in all possible combinations, in a way that they were perceived to either match or not match, based on stereotypicality. A linear model regression shows that there is indeed an effect due to congruence between audio and visual appearance. Visual information has an effect on social meanings.

In sum, this dissertation contributes to the body of research in sociolinguistics that focuses on the variability of social meanings of linguistic variation. Particularly, it underscores its intersectionality with other social constructs such as class and race.
TABLE OF CONTENTS

Chapter 1: Introduction .............................................................................................................1

Chapter 2: The Stereotype of Fresas in Mexico .................................................................5
  2.1 Introduction .......................................................................................................................5
  2.2 The Fresa Stereotype: A Media Analysis .................................................................6
  2.3 Methodology .....................................................................................................................7
  2.4 Results and Discussion .................................................................................................8
  2.5 Conclusions .....................................................................................................................32

Chapter 3: A Linguistic Variant of Fresa Style. Production of Rising Intonation in Declarative Sentences ..........................................................34
  3.1 Introduction .....................................................................................................................34
  3.2 Methodology .....................................................................................................................35
  3.3 Results ..................................................................................................................................41
  3.4 Discussion .........................................................................................................................45
  3.5 Conclusions .....................................................................................................................48

Chapter 4: Social Meaning and Fresa Style. Social Perception of Rising Contours in Declarative Sentences ..........................................................50
  4.1 Introduction .....................................................................................................................50
  4.2 Round 1 ..................................................................................................................................53
    4.2.1 Methodology ..............................................................................................................53
    4.2.2 Results .........................................................................................................................60
    4.2.3 Discussion .....................................................................................................................61
  4.3 Round 2 ..................................................................................................................................64
    4.3.1 Methodology ..............................................................................................................64
    4.3.2 Results .........................................................................................................................70
  4.4 General Discussion ...........................................................................................................89
  4.5 Conclusions .....................................................................................................................92

Chapter 5: Linguistic Styles and Visual Information. The Effect of Stereotype Congruence on Social Meanings .................................................................93
  5.1 Introduction .....................................................................................................................93
  5.2 Background: Language, Social Meaning and Cognition .............................................94
  5.3 Case Study: Fresas and Nacos in Mexico .......................................................................100
  5.4 Methodology ...................................................................................................................102
    5.4.1 Subjects .......................................................................................................................102
    5.4.2 Materials .......................................................................................................................103
    5.4.4 Experimental Design .................................................................................................107
    5.4.5 Procedure .....................................................................................................................108
    5.4.6 Predictions ....................................................................................................................109
  5.5 Results and Statistical Analysis ......................................................................................110
  5.6 Discussion .......................................................................................................................119
5.7 Conclusions .......................................................................................................................... 128

Chapter 6: Overall Conclusions ............................................................................................... 129

References .................................................................................................................................. 132

APPENDIXES ............................................................................................................................. 145
  a) Sample Assessment Sheet for Rating Pictures and Audio Clips (Validation Process for Stimuli, Chapter 5) ............................................................... 145
  b) Answer Sheet of Matched Guise (Chapter 4) ....................................................................... 146
  c) Task 2 (Chapter 4) ........................................................................................................... 150
  d) Task 3 (Chapter 4) ........................................................................................................... 150
  e) Task 4 (Chapter 4) ........................................................................................................... 151
  f) Demographic Questionnaire for Participants of Matched Guise (Chapter 4) .......... 152
  g) Answer Sheet Experiment (Chapter 5) ................................................................................ 153
  h) Demographic Questionnaire of Participants (Chapter 5) ................................................ 154
  i) Results for query "los fresas" ............................................................................................... 156
  j) Transcription of Audios ................................................................................................... 158
Chapter 1: Introduction

Years ago, when I was working on the functions and historical development of the Spanish discourse marker *o sea* ‘I mean’, I realized that Mexicans –linguists and non-linguists alike– had a fascination with this word due to its association with a group in Mexico, the so-called *fresas* ‘strawberries’. So every time I told Mexicans that I had done research on that word, almost inevitably, they would perform a *fresa* person saying *o sea ¿noooo?* ‘I mean, riiiiight?’ Puzzled by this constant reaction, I decided to go on and research this topic. To my surprise, there was almost nothing (academic) written about *fresas* and their linguistic style, with the exception of a few publications (e.g., Reyes, Guadarrama & López-Estrada, 2009; Urteaga & Ortega Guitérrez, 2004). One of those publications where the group was mentioned was Mendoza-Denton (2008), who defined them as “young person[s] from the urban, middle-class, predominantly European-descent elite” (p.11). So it seemed that while any lay Mexican had a “clear” idea –or rather stereotypical idea- about the group, academia had not thought of the phenomenon as a potential topic of research, not even sociolinguists. So maybe, the first question to be asked here is: Why would it even be worth studying *fresas*, and in the case of sociolinguistics, their linguistic style?

As I just said, the first obvious reason –to a Mexican, at least– is that *fresas* have been a social phenomenon for several decades, being portrayed in cultural artifacts such as the 1985 famous novel *Las niñas bien* ‘The nice girls’ by Guadalupe Loaeza. And as a matter of fact, the colloquial term *fresa* is defined in the *Diccionario del español de México*:
Fresa. Tratándose de jóvenes, que no se arriesga a contravenir normas y leyes, que pertenece a una clase social privilegiada, generalmente de dinero y con gustos e ideología conservadores.

‘Strawberry. Referring to youth who do not risk to contravening norms and laws, that belongs to a privileged social class, generally economically affluent and with conservative taste and ideologies.’

This shows that the concept of fresa in Mexico has clearly permeated society. But, in real life, who do Mexicans consider to be a fresa? What linguistic features are associated with this style (besides o sea)? In this dissertation, chapter two presents evidence not only on who fresas are but on how they are perceived, especially, in regards to language use. Concretely, that chapter focuses on the stereotype content of fresas as portrayed in webpages and Youtube videos.

In fact, the second argument for studying this phenomenon is that its linguistic style is a particular characteristic of the fresa stereotype –people concretely refer to it. This has been reported in some perceptual dialectology research (Barragán Trejo, 2015; Serrano Morales, mss.) and found in the study presented in Chapter 2. Still, a concrete list of (perceived) features of the style had not been collected (at least not from Mexican Spanish, see Vigara Tauste, 2002 for the case of pijos –a parallel group but in Spain), let alone compared to production data –i.e., a comparison between what the other Mexicans say fresas say vs. what they actually produce. Thus, it seems that even though Mexican sociolinguists such as Martin Butragueño (2007:15) argue that people have an idea about how this or that group speaks as in la distinción conocida entre fresas y nacos ‘the known distinction between fresas and nacos’, there have not been any acoustic studies of it. So,
what is it that people notice phonetically about fresa style? Does anyone really produce the linguistic features associated with it? A section of chapter two and chapter three concentrate on production. Part of chapter two analyses three performances of the stereotype, while chapter three explores the production of rising contours in declarative sentences in spontaneous conversations as one of the linguistic features of the style.

Another argument in favor of studying fresa style in Mexican Spanish comes from the most recent trends in sociolinguistics. According to Eckert (2012), studies on the social meaning of linguistic variation have come primarily in three waves. The first, starting with Labov’s (1972) pioneer work on the correlation between linguistic variables and broad social categories (e.g., age, gender, class, etc.). The second wave focuses on the ethnography of rather local social categories –versus broad ones-, as in actual social networks and their linguistic repertoire. Now, the third wave that Eckert proposes emphasizes linguistic variables as some of the elements that construe social meaning or personas, but instead of being static, these variables can shape new meanings out of the old ones –that is, where the broad and the local social categories interact. From this perspective, social meaning, rather than the linguistic variables themselves, becomes the center of attention. Thus, Eckert encourages sociolinguists to look beyond variables involved in language change and to study any linguistic feature that plays a role in constructing social meaning. This dissertation adheres to this last trend, as it does not explore classic variables in Spanish (e.g., aspiration of /s/, assibilation of /r/, etc.) but investigates a variable that has a direct relation to the social meaning of fresa. Thus, chapter four presents a matched guise study looking at the possible relationship between
intonation and the *fresa* persona, as portrayed in the stereotype (Chapter 2) and in the production data (Chapter 3).

Now, the last argument for taking *fresa* style as an ideal case study is its intersectionality with class and race in Mexico. The stereotype of *fresa* is not only closely tied to language but to looks as well (as shown in Chapter 2), which allows for the exploration of the construction of social meaning not only coming from the linguistic style but also from the visual elements, that in this case, point to class and race. Particularly, the fact that *fresa* style is associated with upper class and European white looking, makes this case a very interesting one: are you considered *fresa* just because you use the linguistic style? Or do you also have to look like one? This connection among language, class and race is clearly seen in an experimental study of how appearance affects social meanings presented in Chapter 5.

In this way, the general aim of this work is to contribute to the body of research on the effect that language variation has on the impression formation of others –i.e., social meaning– by studying the sociolinguistic stereotype of *fresas* in Mexican Spanish. Therefore, this dissertation compiles four independent empirical studies surrounding the social meaning of *fresa*. Again, Chapter 2 describes the general and linguistic characteristics associated with the stereotype. Then, Chapters 3 and 4 are two sides of the same coin: the first one is a study on the production of rising contours in declarative sentences, while the second reports on the social perception of these rises. Finally, Chapter 5 presents an experiment on how visual information affects social meanings. At the end, I present the overall conclusions of all four studies.
Chapter 2: The Stereotype of Fresas in Mexico

2.1 Introduction
As previously mentioned, the stereotype of fresas in Mexico is widespread among the urban population but barely studied. In a short essay about them, sociologists Urteaga and Ortega Guitérrez (2004) described fresas as:

*Individuos de clase alta o clase media alta que se caracterizan por tener actitudes y comportamientos de superioridad y patrones estéticos y conductuales muy vinculados a los estilos de consumo y moda hegemónicos en la cultura mexicana urbana.*

‘Individuals of upper or upper middle class that are characterized as having attitudes and behavior of superiority and aesthetic and behavioral patterns closely associated with styles of consumerism and the hegemonic fashion of the urban Mexican culture.’¹

In other words, this group is perceived as the privileged Mexican youth, who have an expensive lifestyle, behave pretentiously and also, speak Mexican Spanish very distinctively (Córdova Abundis & Corona Zenil, 2002). Due to their cultural salience over decades, fresas have been repeatedly represented in TV shows, like comedies and soap operas. Specifically, they are always portrayed as speaking in a unique style. What is interesting is that until now there has been a lack of a consistent description of the

¹ Personal translation
group in general or specifically, about their linguistic style\(^2\). Therefore, this section focuses on a short study conducted to know what are the perceived characteristics (linguistic and non-linguistic) of *fresas* that people in an online environment associate with them. The intention to conduct the research in this manner (perceived vs. directly studying the group) is to align it with the rest of the dissertation, which primarily takes on a perceptual point of view.

### 2.2 The *Fresa* Stereotype: A Media Analysis

This section presents a virtual ethnography study on the stereotype of *fresas*\(^3\). This approach fits the entire dissertation work in that “rather than [online texts] being seen as more or less accurate portrayals of reality, [online] text should be seen as ethnographic material which tells us about the understanding which authors have of the reality which they inhabit” (Hine, 2000: 51). One of the main advantages of online research is accessibility of a collection of texts from a variety of users. In this case, according to the Mexican Institute of Statistics and Geography (INEGI, Instituto Nacional de Estadística y Geografía, 2012\(^4\)), there were 40.9 million Mexican Internet users by 2012. 64.1% of these users range from 12 to 34 years old and there is a very similar use of the Internet across genders (males 51.8%, females 48.2%). Also, INEGI surveys (2004) report that the level of education is correlated with the use of Internet so that the higher someone’s level of education is, the more use of Internet they make. By 2012, 80% of Mexican Internet users had completed middle, high school or a bachelor’s degree. 55% was

\(^2\) The work of Holguín-Mendoza (2011) is the only one that (indirectly) provides some insight into the group, but it will be discussed in Chapters 3 and 4 because of its relevance to the topics discussed on those sections.

\(^3\) Most of the content in this section has been published in a conference proceeding. See Martinez Gomez (2014).

\(^4\) I use the numbers from 2012 because the data was collected at the beginning of 2013.
economically active and 45% inactive (starting at 11 years old). 59.7% used the Internet to obtain information and/or to communicate (e.g. emails, chats, etc.). Thus, it seemed a pursuable database to obtain the perceptual content features of the fresa stereotype. I will now explain the methodology used to conduct this brief online study.

2.3 Methodology
The data comes from a systematic search on the Web (Herring, 2004; Hine, 2000). Two queries in Google Mexico were carried out: los fresas ‘the fresas’, to answer the question 1) what is the content of the stereotype of fresas in an online setting?; cómo hablan los fresas ‘how do fresas speak’ was the second query, in order to answer question 2) what is the content of the stereotype in regards to language? A total of 64 results were analyzed (50 from the first query, 14 from the second). Any data pulled by Google Mexico counted as a result, regardless of the type, thus it included written and video data. The first results were selected based on the fact that the search engine’s goal is to give users the most relevant content related to the keywords. The first query results were categorized into different emerging themes on a spreadsheet. The content analyzed consisted of main blog entries (excluding the comments), entire wikis, or answers from Q&A forums regarding fresas. Comments not written by Mexicans were also excluded (if known, such as in Q&A forums where the country of the writer is shown). Then, all of the content in relation to speech was extracted from the first query and categorized according to different types of linguistic features (e.g. phonetic, discourse markers, etc.) along with the results of the second query, all in a spreadsheet.

Since the use of online videos as a source of data has been a recent trend in sociolinguistics (Wrobel, 2012), a last step in this analysis was to observe performances
of the style, also pulled up by the queries in *Google Mexico*. Furthermore, there have been studies on the portrayals of certain sociolinguistic stereotypes through media (Bucholtz & López, 2011; Inigo, 2007). Thus, for this analysis, I take videos that were part of the results from both searches where *fresa* style is imitated. I will present a brief qualitative and acoustic analysis of three videos, which includes a comparison of the performances of the *fresa* and the non-*fresa* style of the same speaker. This decision was based on the fact that these videos contain a *fresa* and a non-fresa speaker, which works as a basis of comparison.

I now turn to the results. I first discuss the content of the general stereotype of *fresas*; then, I examine the linguistic features associated with the style, both written on the webpages and performed in videos where *fresa* style is imitated.

### 2.4 Results and Discussion

#### 2.4.1 The Content of the *Fresa* Stereotype

Before discussing specific results (see Appendix I for the complete list of the results from both queries), I will briefly describe the online environment that all the comments come from. First, the most common formats used to discuss the group are blogs and forums. These two formats include varying information, from specific questions about the group (e.g., *¿Como son los fresas necesito saber?* - *Yahoo! México Respuestas* ‘How are fresas? - I need to know – Yahoo! Mexico Answers’) to blogs discussing what blog authors hate about *fresas*. *Fresas* also have an entry in *Frikipedia*, *Wikipedia* and *Incliclopedia*, where a variety of characteristics are included. As far as videos, three of the five results were about *fresas* explained as a *tribu urbana* ‘urban tribe’ (a group of

---

5 All webpages titles and citations are transcribed using the original orthography.
young individuals that behave similarly), describing their core characteristics and presenting some imitations; another video was a song directed towards *fresas*. The last video is called *Los fresas también bailan* ‘Fresas also dance’, which presumably makes reference to a famous Mexican soap opera from the late 70’s titled *Los ricos también lloran* ‘Rich (people) also cry.’ In general, there seems to be an interest in who *fresas* are, as they are the main topic of pages dedicated to give information or discuss them. On the other hand, some pages used the topic purely as a prompt for humor. For example, several webpages reproduce almost the exact same list of phrases that are supposedly said by *fresas* (shown below in this section).

After looking at the first 50 results given by *Google Mexico* and categorizing the topics in a spreadsheet, the themes shown in Table 1 were prominent. The number of mentions refers to how many times total each topic came up in all 50 webpages. For instance, the theme *Nacos* – discussed in detail below – came up in 21 webpages out of the 50. I will discuss only the first five themes and physical attributes, as that will be relevant to Chapter 5 (which discusses the effect of visual cues on social meanings). Linguistic features are discussed separately in the next section.

As we can see, the topic that surfaced the most in the webpages was the opposition of the groups *fresas* and *nacos*. According to Moreno de Alba (1988: 42) the noun or adjective *naco* comes from the Portuguese “coward, fool”. However, the *Diccionario del español de México* ‘Dictionary of Mexican Spanish’ provides three different definitions: 1) that (it/he) is Indian or Indigenous from Mexico, 2) that (it/he) is ignorant and dumb, that lacks education, and 3) that (it/he) has bad taste or no class. According to Lomnitz (2001: 111):
<table>
<thead>
<tr>
<th>Theme</th>
<th>No. of mentions in webpages (out of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nacos</td>
<td>21</td>
</tr>
<tr>
<td>Attitudes</td>
<td>13</td>
</tr>
<tr>
<td>Clothing</td>
<td>13</td>
</tr>
<tr>
<td>Expensive lifestyle</td>
<td>13</td>
</tr>
<tr>
<td>Class</td>
<td>12</td>
</tr>
<tr>
<td>Language</td>
<td>12</td>
</tr>
<tr>
<td>“Equivalents” in other countries</td>
<td>11</td>
</tr>
<tr>
<td>Personality</td>
<td>9</td>
</tr>
<tr>
<td>Music</td>
<td>9</td>
</tr>
<tr>
<td>School</td>
<td>8</td>
</tr>
<tr>
<td>Origin</td>
<td>8</td>
</tr>
<tr>
<td>Other names in Mexico</td>
<td>7</td>
</tr>
<tr>
<td>Places they go to</td>
<td>7</td>
</tr>
<tr>
<td>Culture</td>
<td>6</td>
</tr>
<tr>
<td>Community</td>
<td>6</td>
</tr>
<tr>
<td>Types of fresas</td>
<td>6</td>
</tr>
<tr>
<td>Physical attributes</td>
<td>6</td>
</tr>
<tr>
<td>Intelligence</td>
<td>4</td>
</tr>
<tr>
<td>Use of Internet linguistic devices</td>
<td>3</td>
</tr>
<tr>
<td>(e.g., use of capital letters and other symbols)</td>
<td></td>
</tr>
<tr>
<td>Media characters</td>
<td>2</td>
</tr>
<tr>
<td>Famous people that would be considered</td>
<td>2</td>
</tr>
<tr>
<td>fresas</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>2</td>
</tr>
<tr>
<td>Food</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1. List of topics discussed across webpages.
Until sometime in the mid-1970s, the term *naco*, which is allegedly a contraction of *Totonaco*, was used as a slur against Indians or, more generally, against peasants or anyone who stood for the provincial backwardness that Mexico was trying so hard to emerge out of [...] The *naco*, then, was the uncultured and uncouth Indian who could only be redeemed through an international culture.

Thus, this opposite group to *fresas* is seen as the Mexican working class who deviate from what upper class society deems as proper and stylish. According to humorous Incliclopedia.wikia.com *fresa es el enemigo y contraevolución natural del naco* “fresa is the enemy and natural counter-evolution of the naco”. On these webpages, people comment on how *fresas* talk in a derogatory way about *nacos* and give examples of encounters between the two groups portraying their hatred for each other. People comment that *fresas* avoid the presence of *nacos*. For example, *fresas* would go to big malls because “the small ones are for nacos and poor”. One recurrent subject to notice is that in spite of “the obvious opposition” between the groups, both might do similar activities, like listening to the same musical group, use sunglasses on cloudy days, or even mix Spanish and English:

> Y aunque los muy Pendejo procuran evitar ser nacos, hablan Spanglish ¡PERO QUE IDIOTAS SE OYEN HABLANDO 2 IDIOMAS A LA VEZ!

‘And even though these fucking idiots avoid being nacos, they speak Spanglish, BUT HOW STUPID THEY SOUND SPEAKING 2 LANGUAGES AT THE SAME TIME!’

---

6 Quotations in Spanish use original format (e.g., orthography, capital letters, etc.) and translations to English are my own.
This comment is interesting in that the use of English nonce borrowings is perceived as falling into the naco spectrum instead. That is, instead of English being a commodity indexing higher social class as it has been previously shown (Matus-Mendoza, 2002), here it becomes an unwelcomed behavior when it competes against the purist ideology. In other words, this comment shows the idea of using a “pure” Spanish, protected from other languages corrupting it. That is, it does not matter for social status purposes that you also speak another prestigious language (i.e., English), if you mix it with Spanish.

In fact, linguistic style also seems to be involved in the construction of the opposition between fresa vs. naco. Beyond the comment about the fresa accent being different from the típico naco ‘typical naco’ or from anybody else’s, there are remarks on how the social meaning changes when a fresa says something that you would rather expect from a naco:

\[\text{HAY FRASES DE NACOS QUE CUANDO LO DICE UN FRESA SE OYE SASSY, JEJE.}\]

‘THERE ARE PHRASES OF NACOS THAT WHEN A FRESA SAYS IT IT SOUNDS SASSY, HEHE.’

It is interesting that fresas using naco phrases would be interpreted as sassy but other potentially fresa actions performed by nacos would be interpreted as fakers. For example, somebody comments on how a fresa would write online or in texting:

\[\text{Nunca escriben el sonido de la "s" con "zZzZz" ni usan muchas "XxXxXx" ni "WwWwW" ni escriben mayúscula minúscula cada dos segs (Eso es para nacos}
que querian aparentar ser fresas).

‘[Fresas] never write the sound of “s” with "ZzZz" nor use many “XxXxXx” neither "WwWwW" nor write capital letters and lower case letters every two seconds (that is for nacos who wanted to pretend to be fresas).’

Although this mixture of lower case and capital letters was considered fashioned at the beginning of the social media era in Mexico –just as a creative way diverging from the norm– it ended up gaining the social meaning of naco. Currently, it is used primarily to mock the naco style. In any case, the important issue to notice from all these cases is that the use of the same object (e.g., language, music, sunglasses) can be interpreted differently, either as fresa or naco.

The next most frequent topic was attitudes towards fresas. A frequent word used to describe them is presumidos, which is the Spanish adjective for people who brag. They are described as feeling superior to the rest of population, as being arrogant, exagerados ‘exaggerated’ and picky, hypocrites who judge other people and make fun of or despise the lower class and their habits, making them feel inferior. They act as if they own everything, including the power to change the rules as they wish. Although most of the comments on their attitudes are written in a very negative way, one writer offered an explanation for the fresas’ behavior:

*No es que sean gente mala sino que le otorgaron sus padres fue de una manera en la cual se les daba a "conocer" que la demas gente era inferior*

---

7 An example of this would be something like *No InVenteZzZ* ‘Get out’ instead of just *no inventes*, which is the standard written form.
a ellos, ya sea por su estado economico o solamente por un simple capricho, es por eso que ellos son de esa manera es solo la mala educacion de la familia :)

‘It’s not that they are bad people but the education they received from their parents was in a way in which they were told that the rest of the people were inferior, either because of their economic status or just because of simple caprice, that’s why they are like that it is just the bad education by their families :)’

Thus, although negative attitudes displayed by fresas can provoke aggressive reactions from some people –like the author of the blog entry 10 cosas que odio de los “Fresas” ‘10 things I hate of “Fresas”’ – we see how others attribute these attitudes to a lifestyle and try to reconcile differences among social groups:

But what’s important about all this is that there should not be any type of discrimination towards any group because their lifestyle and way of dressing is respectable, it is like any other simple human being, so respect each other (did you listen Fresas and Nacos).’

Notice that this last comment describes it as a lifestyle and specifically refers to clothing.

In fact, someone else when asked what s/he thought about fresas, said:
SON LOS QUE MEJOR SE ARREGLAN SIEMPRE TIENEN UN ASPECTO 
PRESENTABLE Y LIMPIOS ESO ES LO QUE YO PIENSO DE LOS FRESAS.

(They) ARE THE ONES THAT ALWAYS DRESS UP THE BEST AND HAVE 
A PRESENTABLE ASPECT AND CLEAN THAT IS WHAT I THINK OF 
FRESAS.’

Clothing was actually the next most common topic. By far the most frequent comment 
on this was the use of prestigious brands and/or designers such as Abercrombie & Fitch, 
Hollister Co., Lacoste, Armani, among others. And as someone mentions, this seems to 
be related to avoiding national products. Furthermore, they dress in an “elaborate” way, 
using accessories such as “bracelets, necklaces, purses” etc. All these could be either very 
expensive or baratijas que lucen muy in ‘cheap stuff that looks very in’. Fresa women 
are perceived as being picky in choosing their clothes in order to have a look chic, 
elegante, discreto, moderno y a la vez imposible de no notarlo... ‘chic look, elegant, 
discreet, modern and at the same time impossible to ignore’. Some might even associate 
specific colors of clothes, such as pink for men and women, or gold (not black, as it is 
associated with another group called emos). Also, fresa men are perceived as 
metrosexuals, as in the following exaggeration (also, notice that the author refers to 
fresas as animals by using the words macho ‘male’ and hembra ‘female’, which are only 
used for animals in Spanish):

_Es fácilmente reconocer entre un ejemplar fresa macho y hembra. Basta ver cual 
usa más maquillaje y accesorios. Quién trae menos es la hembra._

‘It is easy to distinguish between a male and a female fresa. It is enough to see
which one uses more makeup and accessories. The one who uses less is the female.’

Although there seems to be such a strong correlation between a fashion look and *fresas* – to the point of defining *fresas* as “someone who knows how to brag and dress”- this is might not be enough to be categorized as one, according to some:

*Generalmente una persona fresa no puede ser catalogada como tal con su forma de vestir, sin embargo el término puede ser utilizado para describir un modo superfluo y llamativo. En una escuela pueden estar dos personas vestidas igual y una ser fresa mientras la otra no lo es, para serlo es necesario tener una actitud peculiar.*

‘Generally, a fresa person cannot be catalogued as one based on his/her way of way of dressing, however the term could be used to describe a superfluous and showy style. In a school, there could be two people dressed the same way and one is a fresa while the other is not, in order to be one it is necessary to have a particular attitude.’

The next two most frequently related themes were expensive lifestyle and social class. *Fresas* are portrayed as a privileged group that has an expensive way of living: from buying the latest gadgets to traveling to other countries. Electronics were very common objects mentioned throughout the webpages: iPods, iPhones, Macbooks, Blackberries, GPS or any expensive innovative article. They are described as shopaholics that support capitalism. An important element to notice is that *fresas* have access to these expensive objects because of their “rich parents” who get them anything they want. This is why
fresas are also known as hijos de papi ‘daddy’s children’. Their parents are described as owning luxurious cars like Audi, BMW, Mercedes-Benz, Volvo, Jaguar, or Cadillac, which could be mas caros que una casa “more expensive than a house” in Mexico.

Particularly, one webpage provides a list of “rules” in order to be a fresa. This list includes: to have a daddy with money; to have cable TV at home (obviamente “obviously”); to have servants at home (maids and a chauffeur); to travel to other countries (at least twice a year) and finally, not to be poor, pobres out. In one of the humorous pages, fresas’ expensive lifestyle is ridiculed by presenting them as people who believe that they are invincible against many natural disasters because of objects they own or because of what these objects are able to do (for instance, heaters and air conditioning in houses in Mexico are not that common):

Si hace calor, prenden su aire acondicionado. Si hace frío, prenden su calefacción ultrasónica. Si hay una inundación, se van a París de compras mientras esperan que saquen a su gatita Princesuchi de los charcos. [...] Los fresas creen que su bronceador marca Paris Hilton los protegerá de cualquier rayo solar que pueda dañar su piel bronceadita. [...] ¿Por qué creen los fresas que ellos sobrevivirían si se estrellara un meteorito contra la tierra? Aunque tengan un refugio súper equipado con blu ray y todas las películas de Legalmente Rubia, la raza humana -a la que también pertenecen ellos- necesita vivir en la superficie y necesita agua constantemente. Una muy mala noticia: ¡la Coca Cola Light también está hecha con agua!
‘If it’s hot, they turn on their air conditioner. If it’s cold, they turn on their ultrasonic heating. If there is a flood, they go shopping to Paris while they wait for their kitty [named] Prinessie to be taken out of the puddles. […] Fresas believe that their tanning lotion brand Paris Hilton will protect them from any sunbeam that could damage their little tanned skin. […] Why do fresas think they would survive if a meteorite impacts earth? Even if they have a super shelter equipped with blue ray and all of the movies of Legally Blond, human race – to which they belong as well - needs to live on the surface and needs water constantly. Very bad news: Coca Cola light is also made with water!’

The socioeconomic status seems to be such an important factor in being or not being a fresa that one writer claims that es la única tribu que se basa únicamente en el estatus socio-económico ‘it is the only [urban] tribe that is based on socioeconomic status’. In Wikipedia, fresas are considered the urban Mexican elite:

...The reality, however, is that they are the social, economic, and intellectual elite of Mexico City, as well as other developed urban areas.

They are seen as a very closed social circle, which does not hang out with anyone, let alone reproduce:

para asegurar la pureza de la sangre fresa, sólo se está permitido andar con chavas cuya familia tenga un ingreso igual o superior

‘in order to assure the purity of the fresa blood, it is only allowed to go out with girls whose families earn the same or more’.
In fact, in this last citation, notice the implication not only of socioeconomic status but also of race in the concept of *fresa* blood. Thus, for the most part, *fresas* are described as the children of rich people, who belong to upper middle or upper class: the more money you have, the better in order to be a *fresa*. Still, some *fresas* (in behavior) might belong to other social classes, although they might be seen as “fake *fresas*” (and notice the remark on whiteness again):

> [fresa es el] que tiene o aparenta tener muchas posesiones materiales o en su caso mucho dinero. Al principio, únicamente los de apariencia europea o criolla pertenecientes a las clases media o alta eran llamados “fresa”, sin embargo, luego se aplicó a gente de clase trabajadora y aún pobre que actúan con tal comportamiento (Se al reveso el asunto).

‘[fresa is] the one who has or pretends to have many material possessions or money otherwise. At the beginning, only the ones of European or creole appearance who belonged to middle or upper class were called “fresa”, however, it was later applied to working class people and even poor people that behave with such an attitudes (it went the other way around).’

Thus, some people assume that *fresas* exist in diverse social classes, because *la verdad hacen casi lo mismo pero cambian los lugares* ‘the truth they almost do the same but the places change’. Still, the idea of existing fake *fresas* is pervasive (e.g., they could work anywhere, such as in a factory, but they are not the real *fresas*). Or again, having money does not presuppose that the person is *fresa*; as a person on a webpage argues, maybe many people can afford luxury and have many material things but they are not *fresas*: 
being *fresa* is a specific lifestyle, not just money.

Throughout the different webpages, the personality of *fresas* is displayed, either by directly describing them or by providing examples that illustrate their character. The adjectives used by far the most frequently to describe (some of) them are *superficiales* ‘superficial’, *frívolos* ‘frivolous’ and *arrogantes* ‘arrogant’. They are also depicted as *elegantes* ‘elegant’ but *arrogantes* ‘arrogant’, and *fresa* men can act gallantly but in a superficial manner. They are also seen as hedonists who think they can do anything they want because they have the money to do so. *Fresa* women, particularly, are described as the stereotype of the pretty but evil women who just use men to get what they want. In spite of all these (or maybe this is the reason why they are considered superficial), *fresas* are recognized for their *estilo* ‘style’. They are seen as people with good taste and worried about their image, not only in what they wear but also in how they behave (e.g., they would not get into a physical fight).

As cited above, according to the blog *Los llamados fresas-Mi mundo libre* ‘The so-called fresas-My free world’, *fresas* were first associated with European or creole looking (and this characteristic is actually part of Mendoza Denton’s 2008 definition). In Mexico, this basically excludes people with indigenous or Afro features. However, this characteristic is not noted that frequently in the data, or at least not in these terms. What is more commonly mentioned is that *fresa* girls are (or should be) pretty or that *fresa* boys are handsome, an indirect reference to race, as shown in various works of Moreno Figueroa (2012; 2013). Moreno Figueroa (2013: 137) points out that in Mexico “beauty matters as it makes evident the pervasiveness of racism in the everyday”. Through focus groups with Mexican women, Moreno Figueroa (2012) uncovers the widespread ideology
in Mexico that “to be beautiful means not to have dark skin colour” (p.14), among other physical features. Thus, we see that the list of rules to be a fresa states that ugly girls cannot be part of the group. In fact, fresa women are actually described as buenas ‘hot’ and as being desired by many (fresas and not fresas). And when fresas are not naturally pretty or handsome, they resaltan siempre sus cualidades ‘highlight their qualities’, meaning that they carefully take care of their appearance. And thus, we see in the discussion of fresas the different elements that Moreno Figueroa points out in the process of negotiating beauty:

The specific surface of the body can provide clues for racial identity, national belonging, familial resemblance and cultural capital. Nevertheless, it is the performance of each body, the specific interaction between bodies, and the embodied distinctions between regimes of difference, which locates bodies socially (2012: 17-18).

It is in the concept of beauty that I argue Mexicans are making reference to the relation of race and fresas. Therefore, I argue that when people say that fresas are good looking they might be referring to their European appearance, since ideas of race in Mexico interact with the notion of beauty.

Finally, another characteristic that is important to mention in regards to fresas is their typical age. Although only 9 webpages mentioned that fresas specifically referred to young people for the most part –particularly teenagers– it is important to mention this for the present research. Thus, although sometimes adults could be categorized as fresas, young people are the prototype. Now, the next section discusses the linguistic features
associated with *fresa* style.

2.4.2 The Linguistic Features of the *Fresa* Style

*Verbal descriptions*

This section reports on the linguistic features that people associate with *fresa* style found in the webpages (verbal descriptions only, see below for videos). In the first place, let us notice that language was mentioned in 12 out of the 50 webpages in the first general query (‘*the fresas*’). Some people point out that even though *fresas* might *salir de su burbuja* ‘step outside of their bubble’ and be able to live in the real world, their attitudes and language style, like *el tono un tanto agudo y lo rápido que pueden hablar* ‘the somewhat high pitch and the fast speed in which they can talk’, *los delata* ‘denounces them’ as *fresas*. Overall, people associate this style with social meanings such as being fake, belonging to the upper social class, or the use of proper Spanish. The folkway to describe it is as if they were speaking with a hot potato in their mouths and using words that seem “nice” to them. The “potato in the mouth” clearly refers to phonetic variation as seen in the following statement:

*La pronunciación para esta raza es muy importante. Actualmente para hablar con uno de ellos se debe hacer mientras se como [sic] una papa, aunque con un poco de práctica se puede hablar con mucha fluidez. Los fresas light hablan muy parecido a lo normal pero un acento agudo o una variación en su habla los identifica.*
‘Pronunciation is important to this race. Nowadays, to speak like one of them, it is necessary to do it while eating a potato, although with a little bit of practice you can speak more fluently. Light fresas speak very similarly to normal but with a high pitch or a variation in their speech that identifies them’.

This excerpt also shows that there is variation within the fresa style (and that being fresa is a matter of degrees). This is also shown in opinions about what a “real” fresa says or does not say. For instance, fresas en esencia ‘in essence’ should not use güey ‘dude’ or swear words frequently. In any case, it is common to say that fresas have an arrogant accent, different from the rest of the population, which indexes a high socio-economic position; features include uptalk intonation or lengthening of the last syllable of the intonation unit. For instance, they are described as arrastrando siempre la ultima silaba de cada oracion ‘always dragging the last syllable of each sentence’ or toda frase se emite con tono de interrogación ‘all phrases are emitted with interrogative intonation’. In other cases, the descriptions people provide are not as straightforward to interpret:

The fresa accent is also different (faked) from the typical slow-pitched Mexican accent, with a higher established accent, different tone and "proper" vocabulary.

Certainly, an incredibly iconic phrase that fresas use is the discourse marker o sea ‘I mean’, which one writer associates with indexing knowledge of pop culture. Fresas are also perceived as always ending their intonation units with some reduction of the vocative güey “dude” and are supposedly identified by the frequent use of certain words or prefabs such as:

---

8 The text from which this citation is taken is originally written in English.
• **está cool** “it’s cool”

• **hello**

• **no inventes** “no way”

• **o sea ves** “I mean, right?”

• **tipo** “it is/was like”

• **mal plan** “how bad”

• **wannabe**

• **mega___**

• **super____**

• **mini___**

• **así como** “it is/was like”

• **quisieras** “you wish”

• **Bye**

• **Nada que ver** “it has nothing to do”

• **Nice**

• **Cute**

• **Oh My!!!!!**

As we can tell from this list, the use of English words is perceived as a very common practice among *fresas*. This practice is not very well received by out-group members, as mentioned previously. They call it Spanglish and it is seen as a deviation from proper Spanish. Thus, *fresas* are harshly criticized for this practice (¿*Es tan difícil decir "jugo de naranja"*? ‘Is it so hard to say “orange juice”?’) as well as for not pronouncing it like in English. In fact, among all of the linguistic characteristics associated with the style, the
use of nonce borrowings from English was the most common one (see table 2). This characteristic is even used to describe (and mock) the group. As someone says, "su vida es "friends", "scool", "party y money, "shopping" y "GLAMOUR", ‘their life is “friends”, “school”, “party and money”, “shopping” and “GLAMOUR”.’

Table 2 summarizes the linguistic features linked to fresa style found on the webpages, providing some examples. They are listed from the most frequent category to the least frequent one. The first four categories are by far the most frequent ones. The others are also found in the data but not as frequently by any means. Notice that linguistic descriptions were adapted from the original narratives (e.g., in the table, HRT in declaratives stands for interrogative intonation in all phrases), with the exception of topics, which are directly translated.

<table>
<thead>
<tr>
<th>Number of times</th>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Use of English words</td>
<td><em>o sea, hello!</em> ‘I mean, hello,’ <em>está cool</em> ‘It’s cool.’</td>
</tr>
<tr>
<td>10</td>
<td>Phonetic variation:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Vowels</td>
<td><em>Las vocales suelen alargarse más de lo necesario, especialmente al final de cada frase (fraseeeeee)</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘Vowels tend to get lengthened more than necessary, especially at the end of each phrase (phraaaaaaase).’</td>
</tr>
<tr>
<td></td>
<td>-/s/.</td>
<td><em>Las letras S y Z así como la C en ce y ci suelen darles una especial dificultad y parecen ’arrastrarlas’,</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘They tend to put [have?] special difficulty and seem to ‘drag’ the letters S and Z as well as C in ce and ci.’</td>
</tr>
<tr>
<td>Number of times</td>
<td>Category</td>
<td>Example</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Intonation.</strong></td>
<td><em>Toda frase se emite con tono de interrogación</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘All phrase is emitted with interrogation tone.’</td>
</tr>
<tr>
<td></td>
<td><strong>Reduction of certain words.</strong></td>
<td><em>Güey /wɛi/ ‘dude’ pronounced as [we].</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>O sea /osea/ ‘I mean’ pronounced as [sa].</em></td>
</tr>
<tr>
<td>10</td>
<td><strong>Frequent use of certain phrases/prefabs</strong></td>
<td><em>No manches wey ‘come on dude.’</em></td>
</tr>
<tr>
<td>6</td>
<td><strong>Use of specific lexicon, such as:</strong></td>
<td>*O sea ‘I mean’ or others such as <em>tipo de que, así como, ‘be like.’</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Liquid Paper instead of corrector.</em></td>
</tr>
<tr>
<td></td>
<td><strong>Excessive use of certain discourse markers</strong></td>
<td><em>O sea nada que ver weee! ‘I mean, not at all, dude.’</em></td>
</tr>
<tr>
<td></td>
<td><strong>Naming of products by the brand.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Use of vocative güey at the end of phrases.</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><strong>Use of interjections</strong></td>
<td><em>Oh, ash (as in a complaint), oh my.</em></td>
</tr>
<tr>
<td>3</td>
<td><strong>Specific conversational topics</strong></td>
<td><em>De cosas superficiales y sin sentido. De cosas materiales y sin importancia, ‘Of superficial things and nonsense. Of materialistic things without importance.’</em></td>
</tr>
<tr>
<td>2</td>
<td><strong>Use of affixes such as:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Diminutives.</strong></td>
<td><em>Besitos ‘little kisses.’</em></td>
</tr>
<tr>
<td></td>
<td><strong>Intensifiers.</strong></td>
<td><em>Super, mini.</em></td>
</tr>
</tbody>
</table>

Table 2. Linguistic features identified as *fresa* across webpages.
Evidence from Videos

In this section, I present the analysis of three videos pulled by Google Mexico in two queries (see Appendix I for links to videos). In all three, a single person (or voice) performs a *fresa* and a non-*fresa*. The first video belongs to a series of cartoon videos called *Naco y Fresa*. The title of the video analyzed is *El i-pos* ‘The i-pos,’ which makes reference to aspects of the *naco* stereotype in Mexico: 1) not being familiar with technology (presumably because of lack of economic resources), 2) not pronouncing word final [ð] typically associated with working class (and in this case substituting it with an [s], making the word resemble a reduced version of the discourse marker *pues* ‘well’, also stigmatized). In the video, the two male cartoon characters talk about an i-Pod.

While the *fresa* character comments how he got rid of his old i-Pod nano—in order to get the latest version—by throwing it into the trash, the *naco* character explains how he found in the trash an artifact which he calls *i-Pos enano* ‘dwarf I-pod.’

In the video, we hear different linguistic features used by the *fresa* compared to the *naco* character. For instance, the *fresa* character frequently uses the discourse marker *o sea* and the tag question *ves* ‘see,’ while the *naco* character never uses them. Or, in the opposite direction, the *fresa* never uses the discourse markers *pues* ‘well’ or *entonces* ‘so,’ nor the Mexican colloquial use of *bien* ‘well’ instead of *muy* ‘very’ in the phrase *bien bonito* ‘very pretty’ or the word *chido* ‘cool,’ as the *naco* character does. As far as phonetic characteristics, the *fresa* character reduces his articulation in a way that either completely deletes entire phones or blends segments together. This observation comes from a comparison between the phone segmentation of both *fresa* and *naco* speech.

While the *naco* also shows reduction in his speech, a phenomenon common to natural
speech, the *fresa* does it more often, for instance in the words appearing in part of the same intonational phrase *basura inmediatamente* /basurajnmeðiatamente/ ‘trash immediately’ are pronounced as [basurenmeðatamente]. Particularly, deletion seems to affect the approximants [β, δ, γ]. Although lenition of /b, d, g/ is well attested in Spanish (and that is how the language gained the approximants in the first place; see Penny, 2002), the *fresa*’s speech style compared to the *naco*’s style seems to be leading to a full deletion of the voiced stops produced as approximants between vowels. This is certainly a topic for further analysis, especially considering that this might be what people describes as the ‘hot potato in the mouth’: a lack of closure or constriction of the mouth (as when you are eating something hot) in expected instances (i.e., when producing stops). Other phonetic differences are the use of glottal stops (e.g., /iosea/ ‘and I mean’ as [iʔosea]) and creaky voice (e.g., in the phrase *qué oso* ‘how embarrassing.’) Another characteristic is the production of /sC-/ onsets at the beginning of the word by the *fresa*, as in *está* ‘it is’ as [sta], which are not typical of Spanish phonotactics (Hualde, 2005). Although Lipski (1990) mentions that Mexico is one of the few countries in which vowel deletion might occur in the context of /s/, we might wonder up to what point its use in *fresa* style could be related to the influence of English. As previously stated, the use of English in the style was the top one feature associated with it. And indeed, English is used in this video, for example, in words such as *fashion, Mickey* (actually referring to the Mexican singer *Luis Miguel*) or the phrase *that’s so yesterday*.

Here, I argue that out-group members might implicitly perceive an influence of English at the phonetic level. In this and in the following video there are other segmental features that point to the possibility of this. For example, in one of the versions of the
question tag ves, the word is pronounced using a [v], a non-existent phoneme, at least in Mexican Spanish (see Torres Cacoullos & Ferreira, 2000), instead of a [b], as shown in the second part of Figure 1.

Figure 1. These are two versions of the word ves /bes/ ‘see’ produced as a single intonational phrase by the fresa character. The first version is produced with a [b], the second one with a [v].

The second video is titled Frases de fresas ‘Phrases of fresas.’ This one was specifically searched to be comparable to the other two (i.e., the other two videos came up in the second search query, this one was searched directly in Youtube). In this video, the same speaker performs both the fresa style and “standard” Mexican Spanish, which in a way controls for inter-speaker variation (Vaughn, 2008). This video is part of a series of video-blogs dedicated to how fresas talk. The male speaker states that being fresa is a lifestyle and performs three types of imitations to mock not only fresa style but also how people inaccurately describe it. He mentions the potato in the mouth description, and that is his first imitation (literally, with a potato in his mouth). The second one is based on his own idea of how they sound, viz. as if they were holding a pencil in their mouths while speaking (notice again that it also has to do with a lack of closure as in the potato-in-the-mouth imitation). The final imitation is the one the performer considers the actual way fresas sound but also construes it in relation to lexical items (i.e., he performs a phonetic imitation as he uses the words/phrases fresas are frequently portrayed producing). Here,
we see another connection between what is found in the texts about *fresas* and the performances of the style in these videos is the list of lexical items: the Youtuber mentions *güey, o sea, tipo de que, Spanglish*, and, evidently as said in the title, the so-called frequent *fresa* phrases. Regarding phonetic features, this performance shows some of the same characteristics imitated in the first video. There is reduction in general, especially in words such as *o sea* and *güey*, which are also commented on in various websites, as shown above. Also, we find again weakening (or complete deletion) of approximants. However, the opposite also occurs in this performance. In some instances, approximants become full stops, as shown in Figure 2, where [b] is produced instead of [β]. This apparent contradiction rather points to yet another feature of *fresas* in general, but now embodied in language: the exaggeration or the unnecessary emphasis. This characteristic is seen on one webpage that described the *fresa* style as *una forma de hablar donde se hace mucho incapié al pronunciar las palabras*, ‘a way of speaking where pronunciation of words is stressed.’ This particular prosodic prominence in turn, brings about the strengthening of segments, yielding different allophones (e.g., [b] instead of [β]) or longer durations (e.g., elongation of /s/, which is mentioned and performed in the video). In this way, the style seems to go either into processes of lenition or strengthening of segments, depending on the use of prosodic prominence.

![Figure 2](image)

*Figure 2. This is the clause *que vayas* ‘that you go (2SG.SUBJ)’ pronounced with a full closure as *[ke.ba.jas]* instead of the expected approximant *[ke.βa.jas]* based on the phonological context.*
Finally, as in the first video, we also find evidence of the influence of English at the phonetic level. Here is another clear example of a cluster /sC-/ at the beginning of a word and intonational phrase, as shown in Figure 3. However, the most surprising feature is the production of an approximant [ɹ] at the end of the word *confesar* ‘to confess,’ as shown in Figure 4. Based on these examples, we can infer that although people do not seem to either believe or be explicitly aware of the style being influenced by English at a phonetic level (i.e., that is never explicitly mentioned on the webpages), they do appear to perceive it implicitly as they produce it in their performances.

**Figure 3.** /sC-/ onset at the beginning of the word and of the intonational phrase es que [es.ke] ‘it’s just that.’

**Figure 4.** A [ɹ] is produced instead of [ɾ] at the end of the word *confesar* ‘to confess.’

The third video is also part of a series of video blogs that cover different topics and was obtained as one of the results of the second query in *Google Mexico.* The title of this video is *Niñas fresas* ‘Strawberry girls.’ The female presenter mostly describes the group
and then in a short performance plays two roles, the fresa and the non-fresa. In this conversation, performed by the same speaker, the fresa character again uses the discourse markers o sea and tipo que, as well as morphological changes in words such as hola > Holis ‘hello,’ and amiga > amiguitx ‘friend,’ and intensifiers like mega in the phrase te mega cuidas ‘take care very well of yourself.’ Also, there is a reference to the use of English by the use of the discourse marker you know. At the phonetic level, we again see reduction of segments, especially approximants, such as in me acaba de /meakaβaðe/ pronounced as [meaka:e] ‘(he) just’. The short performance ends with the anti fresa line ay, pinche tipa fresa, ¿no sabe hablar o qué pedo? ‘ah, fucking fresa girl, doesn’t she know how to speak or what the fuck?’, which is another example of the reactions towards the style.

2.5 Conclusions

In this chapter I presented the first ever systematic description of the characteristics of the stereotype of fresas as well as of the linguistic features associated with their style. In terms of their overall characteristics, three main elements were discussed. The first is the idea that they have a counterpart group: the nacos. The second element was the perception that fresas have a bragging attitude about their expensive lifestyle, particularly their consumption of American objects (especially branded clothes and electronics). Third, we saw the idea that fresas primarily come from the upper or upper middle class and that their prototypical appearance seems to be European looking.

In regards to language, it was shown that there are at least three elements that permeate fresa style: 1) the use of borrowing from English, 2) the use of certain lexical items, such as the discourse marker o sea ‘I mean’ and the vocative güey ‘dude’ and 3)
various phonetic variation such as elongation/reduction/deletion of segments and other non-standard intonational patterns. All of this suggests that the perceived assimilation to an American lifestyle of *fresas* does not only involve the consumption of artifacts (e.g. gadgets, clothes, etc.) but also might affect the linguistic realm as seen by the influence of English. In the following chapter, I present a production study of one of these linguistic features: rising intonation. Although not very frequently mentioned in the data presented in this chapter, this variable was selected for two main reasons: 1) High rising intonation in declarative sentences has been an observed feature in some dialects of English (Britain & Newman, 1992; Fletcher, Grabe & Warren, 2005; Innes, 2007; Shokeir, 2008), making it an interesting variable when considering the context of cultural and linguistic assimilation of *fresas*; and 2) to use intonation as a new venue to observe the construction of social meanings. As suggested by Eckert (2012), taking variables such as intonation, directs the research towards social meaning itself, and makes it less about variables involved in language change (e.g., spirantization of /bdg/). In this sense, studying rising intonation in Mexican Spanish –instead of a more common variable– contributes to our needed understanding of prosody in the construction of personae, as pointed out by researchers such as Martín Butragueño (2011) and Podesva (2011).
Chapter 3: A Linguistic Variant of *Fresa* Style. Production of Rising Intonation in Declarative Sentences

3.1 Introduction

As previously seen in Chapter 2, *fresa* style makes use of various phonetic and lexical linguistic forms. Based on the previous analysis of the stereotype and on Holguín-Mendoza’s study (2011, reviewed below), this chapter will focus on intonation as one of the features of *fresa* linguistic style.

Although there have not been many studies on intonation and social meaning, according to Podesva (2011), salient intonational variants are well suited to carry social meaning. He suggests ‘that intonation can be used to convey temporary, interactionally mediated stances as well as more enduring forms of identity, like personas, and that such meanings are encoded simultaneously’ (p. 260). For instance, he studies the social meaning of declarative contours in the speech of a young gay professional in three different settings and finds that many social meanings can be indexed through intonational patterns. Thus, the idea of intonation being one of the variables to construe *fresa* style is plausible.

Based on the lay description on webpages, *fresa* style intonation might be related to the phenomenon of *uptalk*, which refers to the use of rising intonation at the end of declarative sentences, making them sound like questions. This *high rising terminal* (HRT) in declaratives has been observed in dialects of English (Britain & Newman, 1992; Fletcher & Loakes, 2006; Innes, 2007; Shokeir, 2008) and more recently in Spanish as well (Barranco Márquez, 2015; Vergara, 2015). This rising intonation pattern at the end of declarative sentences goes against the cross-linguistic generalization that
rising contours are used in interrogatives or that they express uncertainty (Ohala, 1983). This feature would certainly be perceived as marked in Mexican Spanish because the use of this contour in declaratives is not part of what is considered standard (De la Mota et al., 2010). Holguín (2011) found this pattern in natural speech and describes it in the Spanish ToBI system as an L* nuclear configuration and an LH% boundary tone, in broad focus. This intonation pattern was produced by a group of Mexicans in her study who were perceived as fresas. Also, Barranco Márquez (2015) finds uptalk in the soap opera Rebelde “Rebellious”, which is widely known among Mexicans for their fresa characters. In this chapter, I analyze data from a conversational corpus of Mexican Spanish from Guadalajara (Martínez Gómez & Ibarra Zetter, 2017, described below in Methodology) to see if uptalk ever occurs and if it is produced by speakers perceived as fresa. The second issue considered in the chapter is the specific acoustic characteristics of these rises, i.e. the phonetic detail of the associated f0 patterns. Thus, an acoustic analysis of this variant is also provided. The research questions in this chapter are:

Q1: Do speakers of Guadalajara, Mexico produce rising intonation in declarative sentences?
Q2: Are the speakers who produce these rises the same as the ones perceived to be fresas?
Q3: What are the specific f0 acoustic patterns of these rises?

3.2 Methodology
The data was taken from a conversational corpus of speakers from Guadalajara, Mexico (Martínez Gómez and Ibarra Zetter, 2017), the second largest city in the country –making it an ideal site to find fresa style due to the urban setting, which goes along with greater
socio-economic class stratification. This *Corpus Conversacional Tapatio* (CCT) was created in order to study linguistic phenomena in the Metropolitan area of Guadalajara (Zona Metropolitana de Guadalajara, ZMG). The ZMG has more than 4,000,000 inhabitants, and it is made up of 6 municipalities: Guadalajara, Zapopan, San Pedro Tlaquepaque, Tonalá, Tlajomulco de Zúñiga and El Salto (see map below).

![Figure 5. Map of the Metropolitan area of Guadalajara including the rest of the municipalities. Source: iconogdl.wordpress.com](image)

The CCT collects more than forty hours of recordings of spontaneous face-to-face informal interactions of 114 speakers of the ZMG. The corpus design is modeled after the Santa Barbara Corpus of Spoken American English (Du Bois et al., 2000). Thus, the speakers include a wide range of ages, occupations, sociocultural backgrounds and lifestyles. Conversations come from different natural settings such as offices, homes, coffee shops, social gatherings, etc. Subjects from Guadalajara were recruited using the social network or the “friend of a friend” methodology (Milroy and Gordon, 2008). Recordings were collected using a Zoom H4N and Sony PCM-M10 recorders and were
conducted by participants on their own with no more than five speakers at once, if possible. Participants provided their basic demographic data (sex, age group, educational level, occupation, neighborhood, and municipality).

Regarding the ZMG dialect, according to Moreno Fernández (2009), Guadalajara belongs to the Central Mexican Spanish dialectal zone. This dialect includes characteristics such as vowel weakening, particularly before /s/, long and tense /s/, and assibilation of /ɾ/ and /ɾ/ (Martín Butragueño, 2014:33).

In regards to the selection of audio clips to analyze from the corpus, speakers’ age was the most important factor. Since the stereotype of fresas is associated with younger people as seen in Chapter 2, all of the voices selected ranged from 19 to 35 years of age - 10 speakers (5 female, 5 male). Table 3 shows the demographic information of the speakers. Additionally, in order to determine to what degree the speakers were perceived as producing fresa linguistic style, a separate set of 36 Mexicans rated short audio clips (8-10 seconds) of the speakers on a scale from extreme fresa (0) to extreme naco (10).

A total of 500 intonational phrases (IPs) with pitch accent in final position of declarative sentences were extracted. That is, 50 IPs per speaker were extracted since the starting point of each conversation. IPs where there was speaker overlap and quotations were excluded.
<table>
<thead>
<tr>
<th>Speaker</th>
<th>Gender</th>
<th>Age</th>
<th>Level of education</th>
<th>Occupation</th>
<th>Context of conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camilo</td>
<td>Male</td>
<td>30</td>
<td>Bachelors</td>
<td>Mechanic Engineer</td>
<td>Married couple at home</td>
</tr>
<tr>
<td>Federica</td>
<td>Female</td>
<td>25</td>
<td>High-school</td>
<td>Housewife</td>
<td>Family at home</td>
</tr>
<tr>
<td>David</td>
<td>Male</td>
<td>35</td>
<td>Masters</td>
<td>Professor</td>
<td>Professors at school</td>
</tr>
<tr>
<td>Ramiro</td>
<td>Male</td>
<td>27</td>
<td>Bachelors</td>
<td>Entrepreneur</td>
<td>Boyfriend/girlfriend at home</td>
</tr>
<tr>
<td>Raquel</td>
<td>Female</td>
<td>25</td>
<td>Masters</td>
<td>Psychologist</td>
<td>Boyfriend/girlfriend at home</td>
</tr>
<tr>
<td>Carla</td>
<td>Female</td>
<td>29</td>
<td>Associate</td>
<td>Housewife</td>
<td>Married couple at home</td>
</tr>
<tr>
<td>Sofía</td>
<td>Female</td>
<td>29</td>
<td>Bachelors</td>
<td>Graphic Designer</td>
<td>Friends at home</td>
</tr>
<tr>
<td>Tomás</td>
<td>Male</td>
<td>29</td>
<td>Bachelors</td>
<td>Entrepreneur</td>
<td>Friends at home</td>
</tr>
<tr>
<td>Pepe</td>
<td>Male</td>
<td>35</td>
<td>Bachelors</td>
<td>Lawyer</td>
<td>Friends at home</td>
</tr>
<tr>
<td>Yolanda</td>
<td>Female</td>
<td>26</td>
<td>Bachelors</td>
<td>Graphic Designer</td>
<td>Cousins at home</td>
</tr>
</tbody>
</table>

Table 3. Demographic information of the speakers.

Based on both auditory cues and f0 pitch tracks using the software Praat (Boersma and Weenink, 2016), each token was categorized as either having a rising, level or falling contour, as shown in Figure 6. The threshold for deciding the type of contour was a difference of 50 hertz between the last stressed syllable and the end of the IP. If the end of the IP was above 50 hertz of the lowest point in the stressed syllable, it was considered a rise; if the end of the IP was 50 hertz less than of the lowest point in the stressed syllable, it was considered a falling contour; and if there was no difference of either more or less than 50 hertz between the stressed syllable and the end of the IP, it was considered level.
After categorizing all the IPs into three types of contour, an acoustic analysis was conducted for the sentences with rising intonation, following the procedure used by Podesva (2011). The maximum and minimum f0 level, the f0 range, the duration from the last stressed syllable to the end of the IP, and the slope of rise were measured. The window selection for measurements started at the beginning of the last stressed syllable and ended at the last point of f0 of the IP. The measures are summarized in Table 4 and Figure 7 shows an example of measurements taken on tokens.
Figure 6. Examples of f0 plots for (a) rising, (b) level and (c) falling contours. The highlighted section is the last word of the IP where the last stressed syllable appeared.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Method of Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>f0 max</td>
<td>peak f0 at the end of utterance</td>
</tr>
<tr>
<td>f0 min</td>
<td>lowest f0 on word bearing nuclear pitch accent</td>
</tr>
<tr>
<td>f0 range</td>
<td>f0 max - f0 min</td>
</tr>
<tr>
<td>duration</td>
<td>t (f0 max) - t (f0 min)</td>
</tr>
<tr>
<td>f0 slope</td>
<td>(f0 max - f0 min) / (t (f0 max) - t (f0 min))</td>
</tr>
</tbody>
</table>

Table 4. Acoustic measures of rising contours
3.3 Results

Regarding the distribution of types of contour, results are shown in Figure 8. We observe that speakers from Guadalajara, Mexico do produce declarative sentences with rising contours (with the exception of David, a university professor). In fact, this seems to happen regardless of speakers being perceived as *fresa*, i.e., all speakers in this sample produce them. Furthermore, the frequency of who produces rising contours is counter to what one would expect. According to these results, the people rated as least *fresa* (ratings are shown in Table 5) produce more rises in declaratives. However, even though speakers rated as *fresa* did not produce rising contours as frequently, the f0 slope of their sentences is very different. The phonetic properties of each speaker’s rising contours⁹ are shown in Table 5.

---

⁹ In order to make the numbers comparable, the Hertz values of all f0 measures were converted to Semitones.
Figure 8. Number of tokens found of each contour type for each speaker.

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Min f0</th>
<th>Max f0</th>
<th>f0 Range</th>
<th>f0 Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raquel</td>
<td>11.5</td>
<td>22.5</td>
<td>11</td>
<td>4.33</td>
</tr>
<tr>
<td>Tomás</td>
<td>4.5</td>
<td>11</td>
<td>6.6</td>
<td>2.14</td>
</tr>
<tr>
<td>Paco</td>
<td>3.3</td>
<td>10.5</td>
<td>7.2</td>
<td>2.74</td>
</tr>
<tr>
<td>Ramiro</td>
<td>1.3</td>
<td>23.4</td>
<td>22</td>
<td>6.9</td>
</tr>
<tr>
<td>Yolanda</td>
<td>12</td>
<td>22.8</td>
<td>10.9</td>
<td>4.48</td>
</tr>
<tr>
<td>Sofia</td>
<td>11.7</td>
<td>21.12</td>
<td>10</td>
<td>2.8</td>
</tr>
<tr>
<td>David</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Camilo</td>
<td>5.6</td>
<td>12.1</td>
<td>6.5</td>
<td>2.18</td>
</tr>
<tr>
<td>Carla</td>
<td>13.8</td>
<td>23</td>
<td>9.2</td>
<td>3.22</td>
</tr>
<tr>
<td>Federica</td>
<td>10.2</td>
<td>16.3</td>
<td>6.1</td>
<td>1.94</td>
</tr>
</tbody>
</table>

Table 5. Mean values of acoustic properties of rising contours in all speakers. F0 is shown in Semitones. Speakers are ordered from most fresa to least fresa.
As we can see, Raquel, the female rated as most *fresa*, along with Ramiro and Yolanda, are distinguished by sharp f0 slopes in their rising contours (underlined in the previous table), compared to the people rated less *fresa* sounding (see Camilo, Carla and specially Federica). Thus, we see that although all speakers produced rising contours, some of the speakers rated as users of *fresa* style pattern differently due to a wider range and a sharper slope of the f0. Figure 9 shows the difference between Raquel’s rises (perceived as a *fresa* style user) and Federica’s rises (perceived as least *fresa* sounding). Figure 10 shows a representation of the rising contours of Raquel and Federica, based on the average f0 of the last 150 milliseconds of all the IPs where they produce this contour.

**Figure 9.** Raquel’s rises (perceived as a fresa style user) on the left, compared to Federica’s rises on the right.
Figure 10. Each line represents the rising contours of Raquel and Federica, based on the average f0 of the last 150 milliseconds of the intonational phrases. The darker line represents Raquel’s contours (fresa) and the lighter Federica’s (non fresa).

Having encountered these potentially significant differences, more tokens of the speaker rated most fresa, Raquel, and her boyfriend, Ramiro, who also produced these steep rises and was rated as fresa, were analyzed. The intention of this was not only to see if there was a statistically significant difference between rises from fresa and non fresa styles but also to have a better idea of how exactly to manipulate sound in an experiment on social perception (presented in Chapter 4). Thus, this second step in production was necessary.

Therefore, I extracted all of the declarative sentences from both speakers, Raquel and Ramiro, in the corpus and took the same measures (f0 min, f0 max, range, slope, see previous Table 4). Ramiro produced 15 sentences with a rise out of 266 (5.2%), while Raquel 27 out of 751 (3.6%). Again, we see that the frequency pattern of this contour is not high at all. However, the specific acoustic characteristics of the contours again point to a difference in rises between styles. If we aggregate these results along with the ones from the tokens extracted in the first round and make two groups of speakers based on the ratings (fresas vs. non fresas) we do see significant differences. A t-test with the
dependent variable of f0 ranges—the difference between f0 min and f0 max—and linguistic style as independent variable (fresa vs. not fresa linguistic style) yields a significant difference (p = 0.0032). This suggests that perceived fresa style users produce a statistically significant higher range in their rises compared to the range of the rises of the non fresa style. A slight difference is also seen in a t-test comparing the slopes of the rises (p = 0.0239). This implies that fresa style users produce rises with a statistically significant higher range in the same amount of time compared to the rises produced by the non fresa style. This difference is perceived as a more abrupt slope in the rises of perceived fresa style users.

3.4 Discussion

There are two important findings from these data. One, declarative sentences are sometimes produced with a rise by practically all speakers of Mexican Spanish from Guadalajara. This result was somewhat unexpected because the stereotype of fresas is that they are the only ones who produce declarative sentences with rises. The second finding is more puzzling in that results suggest that non fresa style users produced declarative sentences with a rising contour more often than perceived fresa style users. Then, how can one explain the stereotype of fresas producing these rises? I propose the following explanations.

One linguistic argument is that what people notice and underlies the metalinguistic comments discussed in Chapter 2 is the wide range in f0, as noted above—and not so much the rise in and of itself. In other words, anyone might produce rising contours on declaratives but only a specific type—a steep rise—is perceived as fresa. The possibility that speakers of different social groups use the “same” variant (i.e. rising
contours in declaratives) with a slight phonetic difference fits what has been found in other studies on High Rising Terminals (HRTs, e.g., Fletcher et al., 2005 on two Australasian varieties). In the present dataset, it seems that it is not only the HRT that might index a fresa persona but the specific f0 slope and range of these contours. That is, differences in phonetic detail might influence social meaning (e.g. Bybee, 2010; Foulkes & Docherty, 2006). In other words, it suggests that HRT might not be a unified intonational category but one that may differ in fine phonetic detail. Furthermore, this acoustic property might contribute to the perception of fresas “exaggerating” their speech and gestures, as seen in Chapter 2. That is, intonation could be one of the exaggerated elements when indexing a fresa persona.

Still, the issue of frequency remains: if the steep rise is so infrequent, how could people even notice it in the first place? The answer might lie in the stigmatization of the group and on cognitive processes of stereotyping. Hamilton (1981:125) argues that “the typical observer […] overestimates the frequency with which members of the minority groups commit undesirable acts.” In other words, it might be that out-group members (non fresas) overestimate how often fresas produce declarative sentences with steep rising contours (a linguistic “undesirable act,” since declarative sentences are not produced with this contour in the standard). Furthermore, Podesva (2011: 260) suggests that “the infrequency with which a particular intonational variant is used may endow it with categorical salience on occasions when it is used”. Thus, the fact that fresa users produce rises less often might make it even more perceptually salient, especially because when they do it, they use this sharper contour which makes it stand out.
Considering all of the above arguments, saliency of rising contours in fresa linguistic style might occur: 1) when the range and slope is produced with specific phonetic characteristics, 2) when they are embedded in linguistic fresa style, 3) because of their infrequency, and 4) because of the stigmatization of the group.

One last thing to comment on is that the steep slope found in the data seems to also occur in intonational phrases that are not complete clauses – and thus were not part of the present analysis. Although Ladd (1996) points out that this contour can occur in these instances of signaling continuation, what might be particular to the present case is the abrupt slope. This was seen impressionistically in the audio clips from which the data was taken (an example is shown in Figure 11, below) and it seems to be also acknowledged in memes related to fresas (Figure 12, below). Again, since these cases were not accounted in the present data, this might be a direction for further research.

Figure 11. Rising contours in syntactically incomplete intonational phrases.
3.5 Conclusions

This chapter presented an analysis of the production of intonational contours of declarative sentences, specifically rising contours. The objective was to determine if speakers perceived as *fresa* users produce declarative sentences with rising contours, suggesting that the variant is indeed used in the linguistic style as portrayed in the stereotype. Data from speakers of Guadalajara, Mexico, show that many produce this rising contour in declarative sentences regardless of linguistic style. In fact, speakers rated more *fresa* sounding produced fewer HRTs compared to the rest. However, there is a qualitative distinction between the rises of the *fresa* style users and others: f0 contours are different in regards to their range and slope. Speakers considered users of *fresa style* produce f0 contours with a greater difference between the minimum and the maximum f0 (range) and with steeper slopes, i.e., a greater range in f0 produced in the same amount of time. These results suggest that there might not be a single HRT, but that there are

---

10 Translation of meme: ‘If we let Chapo govern and Peña Nieto take care of drugs (rising intonation), that’s it bro, we get rid of drug dealers and Mexico grows’
variants of this category that are demonstrably different acoustically and which might influence social meaning.

In conclusion, the results of this chapter argue in favor of intonation being a variable of *fresa* linguistic style. Thus, the experimental study on the social meaning of rising contours presented in the next Chapter builds on the analyzed data of this one.
Chapter 4: Social Meaning and Fresa Style. Social Perception of Rising Contours in Declarative Sentences

4.1 Introduction

This chapter presents a study of the social meaning of rising contours in declarative sentences in Mexican Spanish. Social meaning has been defined as any social information or personal evaluation (e.g., origin, gender, etc.) that a linguistic variant indexes about a speaker (Coupland, 2007). In other words, we can make social predictions about people based on listening to their linguistic repertoire, which includes phonetic details, lexical items, or even grammatical features as in the following example:

(1)  

   a. Espero que no *haya* mucha gente en la tienda.

   b. Espero que no *haiga* mucha gente en la tienda.

   ‘I hope there isn’t SUBJ a lot of people at the store’

In this case, we can see that the referential meaning is the same; the difference lies in the social meanings of the variants used of the verb *haber* in subjunctive, *haya* vs. *haiga*.

While the first form is considered standard, the second is stigmatized and labeled as rural by speakers of metropolitan areas in Latin America (Santa Ana & Parodi, 1998: 48).

In sociolinguistics, social meanings of linguistic variants have been mainly studied from two perspectives: 1) based on the speaker’s intentions (consciously or not) of producing that linguistic form (e.g., Eckert, 1989) and 2) based on the perception of the listeners who hear other speakers using it (e.g., Campbell-Kibler, 2010).
In this chapter, the objective is to determine if Mexican listeners construe a *fresa* social meaning when they hear steep rising contours (like the ones described in Chapter 3) in declarative sentences. The main methodology used to test this was the matched guise, a common technique utilized in sociophonetics to observe the relationship between social information and language (Drager, 2013). In this method, there are two exact versions of the same audio clip with the exception of one linguistic element. Participants listen to one of these versions and are asked about the personality or social characteristics of the speaker (e.g., social class, intelligence, etc.). If there is a significant difference between the answers (or: quantitative ratings) of the two versions, it is argued that the difference is due to the linguistic feature produced, i.e., which language or variant was used.

Originally, this methodology was developed for studies on language attitudes, primarily by Lambert et al. (1960), where social meanings of entire languages were compared (rather than a single linguistic feature). Using this technique, the attitudes and prejudices that people had towards entire languages or varieties were revealed in an implicit way (e.g., Blas Arroyo, 1996; Purnell et al., 1999). Nowadays, the technique is also used to look at specific segmental variables of language. For instance, many works use this methodology: Campbell-Kibler (2006) looking at [ŋ] versus [n] in the English suffix –ING, Casillas (2013) of Spanish [ʃ] versus [tʃ], or Walker et al. (2014) on the aspiration of Spanish /s/.

Furthermore, this methodology is not limited to segmental features but can be applied to suprasegmental ones. There have been studies arguing that intonation is also capable of indexing social characteristics of the speakers and pursue this type of research.
For instance, Escobar et al. (2012) use this methodology to study the social meanings of three intonational contours in Mexican Spanish. In fact, one of the intonational contours studied in their paper is related to the one presented in this chapter: the L*+H L% contour\textsuperscript{11} and its possible association with linguistic fresa style or social class. Although the authors report not finding a connection between this contour and a specific region, class or style, their methodology might have influenced the results. First, they recorded a female performing the stereotype of fresa girl –i.e. the measurements to manipulate the stimuli did not come from naturally produced data. Also, one of the two speakers used to record the stimuli was from Costa Rica. Thus, I pursue a similar hypothesis –rising contours in Mexican Spanish index the social category of fresas using a matched guise as well, but changing details in the methodology.

Another major difference between Escobar et al. (2012) and the present work is that I test for more than a single rising contour. As noted in the previous chapter, which focused on production, there seems to be a difference in how rising contours are produced. The ones produced by speakers rated as fresa style users are more abrupt in regards to the slope. Therefore, the matched guise presented here had three versions of each audio clip: two with the different types of rising contours plus one that either had a falling or level contour.

In this chapter, I present a study on the social perception of rising contours –both rises, regular and steep– produced in declarative sentences. An experiment was run in two different places. The first round of data comes from a matched guise experiment

\textsuperscript{11} Notice that the one presently studied does not have an L%, this boundary is a northern Mexican Spanish feature
conducted with Mexicans living in the US, while the second round includes data collected using the same matched guise plus an explicit comparison between the contours but with subjects living in Mexico. The type of intonation contour is the independent variable and the dependent variable the degree to which speakers are perceived as *fresa*.

### 4.2 Round 1

#### 4.2.1 Methodology

#### 4.2.1.1 Participants

41 Mexicans living in Albuquerque participated ($\text{Mean}_{\text{age}} = 27$; 22 females, 19 males). All were native speakers of Mexican Spanish either because they had been born in the country or because their parents were Mexicans. Thus, years lived in Mexico varied, as shown in Figure 13.

![Distribution of participants by years lived in Mexico](image)

**Figure 13. Distribution of participants by years lived in Mexico.**

Regarding years spent in the US, Figure 14 shows the percentages. All spoke English, except for two. 24 reported to be very familiarized with the *fresa* stereotype, 16
somewhat familiarized, and only 1 less familiar (see Appendix F for complete questionnaire).

4.2.1.2 Materials

4.2.1.2.1 Stimuli

Original audio clips. A sample of 40 audio excerpts was extracted from the Corpus Conversacional Tapatio (CCT), a conversational corpus of speakers from Guadalajara, Mexico (see Chapter 3 for details). These audio clips were produced by 20 speakers (10 female, 10 male - 2 per speaker), ranging from 19 to 35 years of age. None of them included a natural rise contour; only passages with falling or level intonation in declarative sentences were selected.

The extraction of these clips was done in random places of the recordings, taking care to include full intonational phrases. The clips ranged from 6 to 12 seconds in length (with a range of 14-20 total seconds per speaker) and were normalized for intensity.

Figure 14. Distribution of participants by years lived in the US.
Other aspects were also considered for inclusion/exclusion of the audio excerpts. For instance, since the corpus was gathered in natural settings (e.g., locations such as homes) audio with overlaps, personal names, or too much noise was avoided. Also, excerpts discussing topics related to the *fresa* stereotype (e.g., social status) were not used so as to avoid participants categorizing speakers based on topic instead of language. Excerpts with the use of English were not included either, as it is another major indicator of *fresa* category, according to the stereotype study presented in Chapter 2.

In order to determine how typical an example of linguistic *fresa* style each audio was (in its original form, before being manipulated), independent ratings were collected from different participants. The intention of this was to account for a possible effect of the rest of the style in each individual audio clip. 36 Mexicans from Guadalajara rated the 40 audio excerpts on a scale from extreme *fresa* (0) to extreme *naco* (10).

From these 40 audio clips, 20 were employed in the matched guise experiment. 16 of these excerpts were selected based on the overall ratings previously obtained and the feasibility of their manipulation (see Appendix J for a transcription of each audio clip); the other 4 were just used as fillers. The process of selecting the audio clips was as follows: first, the ratings were arranged to see which ones obtained higher *fresa* scores. Then, the four most *fresa* rated men and women were selected\(^\text{12}\). If that included two clips from the same speaker, I also selected the following in the order of the ratings. Also, if the audio clips were not suitable for f0 manipulation, the next ones in the order of the

\(^{12}\) Although this method could have led to ceiling effects, the final audio clips used to create the stimuli included all types of ratings. This ended up being the case due to their different degrees of malleability – manipulation of f0 was simply not feasible in several audio clips.
ratings were chosen. At the end, twelve clips from different speakers (six females, six males) were extracted. Four of those speakers were represented by two clips, giving a total of sixteen audio clips to manipulate.

**Manipulated audios.** Three versions of each of the 16 audio clips were created, differing exclusively in the f0 contour variant used: one with a rise following the *fresa* parameters, a second rise with a lower range compared to the *fresa* model, and a third with a level/falling contour. All excerpts had a manipulated contour on the same segment in order to compare manipulated excerpts only, and avoid comparing a “natural” vs. a manipulated clip. The averaged results of the production analysis were taken as the model to create the rising contours (see *Model for fresa rises* and *Manipulation* sections below for details). Consulting another native speaker of the Guadalajara dialect ensured naturalness of stimuli.

Thus, there were a total of 48 audio stimuli excerpts, 16 containing *fresa* rises, 16 with a less steep rise, and 16 with either a falling or a level contour. In addition, four clips were used as fillers, so that the set of stimuli consisted of 48 manipulated audio clips and 4 fillers, making a total of 52 audio clips. Each participant rated only 20 audio excerpts total, 16 stimuli (6 with *fresa* style rise, 5 with non-*fresa* rises, and 5 with falling/level contour) plus 4 fillers. Table 6 shows each audio clip included in the stimuli.
Table 6. This shows the number of stimuli in the answer sheet (numbers 5, 10, 14 and 19 were fillers in the answer sheet, thus are not shown here), what rating each one previously obtained, and who the speaker is from the Corpus Conversacional Tapatío.

4.2.1.2.2 Model for fresa rises

In order to model the manipulation after the speakers who obtained the highest rating of fresa, I analyzed 2 hours of recording where the speakers Raquel and Ramiro talk (see Chapter 3 for details). For Raquel, of a total of 751 declaratives in that dataset, only 27 rises were found, which is only 3.6% out of the sentences analyzed. For Ramiro, of a total
of 266 declaratives in that data, only 14 rises were found, which is 5.2%. Of these 41 sentences, the following measurements were taken to serve as a basis for the manipulations:

<table>
<thead>
<tr>
<th>Measures</th>
<th>Method of Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>f0 max</td>
<td>peak f0 at the end of utterance</td>
</tr>
<tr>
<td>f0 min</td>
<td>lowest f0 on word bearing nuclear pitch accent</td>
</tr>
<tr>
<td>f0 range</td>
<td>f0 max - f0 min</td>
</tr>
<tr>
<td>duration</td>
<td>t (f0 max) - t (f0 min)</td>
</tr>
<tr>
<td>f0 slope</td>
<td>(f0 max - f0 min) / (t (f0 max) - t (f0 min))</td>
</tr>
</tbody>
</table>

Table 7. Acoustic measures of rising contours

<table>
<thead>
<tr>
<th>Measures</th>
<th>Average in semitones</th>
</tr>
</thead>
<tbody>
<tr>
<td>f0 max</td>
<td>20.19</td>
</tr>
<tr>
<td>f0 min</td>
<td>8.52</td>
</tr>
<tr>
<td>f0 range</td>
<td>11.6</td>
</tr>
<tr>
<td>Duration</td>
<td>.2113 seconds</td>
</tr>
<tr>
<td>f0 slope</td>
<td>5.5 semitones per millisecond</td>
</tr>
</tbody>
</table>

Table 8. Averages in semitones of the 41 rises measured

4.2.1.2.3 Manipulation of f0

Two tools were used to manipulate the f0: Praat’s function *Manipulate* for non-rises and two scripts based on the measures from production data, one following the *fresa* model, and another one based on the rises produced by speakers rated non-*fresa*. All of the manipulated words appeared at different points of the audio clips, although many of them are at the very end of it. The decision of which word to manipulate depended on whether the manipulation was feasible because of the syntax (e.g., it had to be at the end of a
declarative sentence) and if the auditory characteristics made it work or not (e.g., some words could not be manipulated because of voiceless vowels due to creaky voice at the end of IPs). Also, if the audio clips had other natural rises\textsuperscript{13}, they were manipulated to either sound level or falling.

The way the scripts were run was as follows: on a textgrid, boundaries at the very last pitch point as well as the beginning pitch point of the last syllable were put, in order to have that section segmented. Also, two other boundaries a couple of milliseconds before and after this syllable segment were needed to run the script. The audio clips produced by the scripts were used as the stimuli.

4.2.1.2.4 Questionnaire

Participants had to provide their level of agreement with the statement that the speaker was a \textit{fresa} (disagree/1 through agree/6, see Appendix B for the full questionnaire). Due to the interference of perceived context\textsuperscript{14} and the relationship of the speaker to their interlocutor on the perception of the social meaning (Campbell-Kibler, 2006), each audio was controlled for these factors by providing the framework of the conversation to the participants (e.g., “Rosa is telling her boyfriend about a wedding she attended”). Also, the questionnaire provided space for participants’ comments, if desired.

\textsuperscript{13} These rises are not counted as HRTs because they do not occur at the end of a declarative sentence, only at the end of an IP but without the syntactic feature.

\textsuperscript{14} Audio clips are so short (~10 secs.) that participants can create different scenarios in which the audio was produced, which in turn can affect the way they perceive the speaker.
4.2.1.3 Procedure

Participants were recruited by word of mouth, email listserves, and through social networks. The questionnaire was administered face to face in a quiet room. Participants were instructed to use the headphones provided and to read the title of each excerpt prior to playing the audio file in order to prime the context in which all participants should interpret the content. Afterwards, they were asked to provide their level of agreement with the statement that the speaker is a member of the studied social category, *fresa*. There was one practice trial of an excerpt not included in the stimuli to familiarize participants with the task. The order in which the stimuli were presented to all participants was the same. Participants were able to go at their own pace and play the clips as many times as they pleased. At the end, all participants filled out a demographic questionnaire (see Appendix F) and were given a $5 gift card for their cooperation.

4.2.2 Results

It was hypothesized that participants would have a higher rate of agreement with the statement that the speaker counts as *fresa* in response to audio clips containing a steep (*fresa*) rise compared to excerpts with a falling contour or the other (less steep) rise. For simplicity purposes, I will now refer to the *fresa* rise as H (for *high rise*), to the other rise as M (for *medium rise*), and to the control contour, which had either a level or falling contour, L\(^{15}\) (for *low contour*). A one-way ANOVA was conducted to compare the effect of intonation contour on the perception of the social category *fresa* in the H, M and L intonation contour conditions. The results show no significant effect of intonation contour

---

\(^{15}\)The decision of whether the control contour was level or falling depended on how natural either one sounded.
on the social category of *fresa*, *p* > 0.05 [F(2, 608) = 0.27491, *p* = 0.75974]. Full results are shown in Table 9 and Figure 15.

**Summary ANOVA**

<table>
<thead>
<tr>
<th>Groups (contours)</th>
<th>Sample size</th>
<th>Sum</th>
<th>Mean</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>H</em> (fresa rise)</td>
<td>206</td>
<td>739.</td>
<td>3.58738</td>
<td>2.74111</td>
</tr>
<tr>
<td><em>M</em> (rise)</td>
<td>203</td>
<td>705.</td>
<td>3.47291</td>
<td>3.04258</td>
</tr>
<tr>
<td><em>L</em> (leveled/falling)</td>
<td>202</td>
<td>721.</td>
<td>3.56931</td>
<td>2.63448</td>
</tr>
</tbody>
</table>

**ANOVA**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th><em>F</em></th>
<th><em>p-level</em></th>
<th><em>F</em> crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.54278</td>
<td>2</td>
<td>0.77139</td>
<td>0.27491</td>
<td>0.75974</td>
<td>3.01054</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1,706.05787</td>
<td>608</td>
<td>2.80602</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,707.60065</td>
<td>610</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 9. ANOVA results. Dependent variable: rating. Independent variable: intonation contour.*

Figure 15. Box plots comparing rating responses among the three type of intonational contours. *H* stands for fresa type of rise, *M* for rise and *L* for falling or level contour.

4.2.3 Discussion

Results from this data are not sufficient to demonstrate that a steep rise contour at the end of declarative sentences does make a significant difference in social meaning, i.e.,
indexes the social type *fresa*. Thus, the question now is how to interpret the results: are they fully reliable or was there any confound?

If we look at the variation in ratings of each audio clip –shown in Figure 16– we can see that some stimuli had more variation overall (this is regardless of their intonational contour). This variation suggests that the social perception of these audio clips was at least very different across listeners –even if this variation was not strong enough to make a significant difference between the conditions.

![Box plot with ratings of each audio clip and all intonation contours combined.](image)

**Figure 16.** Box plot with ratings of each audio clip and all intonation contours combined.

The clear exception to this is audio #17 (#15 in the box plot above) shown in a histogram in Figure 17 below, which was rated as very *fresa* in almost all cases. This clip comes from Raquel, the girl with the highest *fresa* rating in the former rating task –and the speaker who produces steep rises in the data seen in Chapter 3. However, notice that her other audio clip, #1, has much more variation compared to #17, as seen in Figure 18. This means that even though it is the same speaker in both audio clips, the particular cluster of *fresa* variants in #17 makes it more prototypically *fresa*, regardless of intonation contour.
Overall, it seems that the results are indeed correct and that the use of a steep rise is not enough to associate speakers with the *fresa* category. Still, there are some possible elements that might be playing a role in these results. One possible issue could be that the experiment was conducted with Mexicans living in the US (and mostly from the northern part of Mexico, a different dialect from the speakers). Also, the materials used could have affected the results. For instance, the manipulation of f0 might be still perceived differently compared to natural rises. Or another issue with the experimental design could involve the dependent variable not being the appropriate one. As seen before, the social meaning tested was the category of *fresa* but it might have a more specific meaning, such
as one characteristic of the category. For instance, instead of triggering the meaning of *fresa*, it could index just *pretentious* – a frequent perceived trait about *fresas*, as noted in Chapter 2.

Finally, another potential reason for the obtained results could be that subjects were expecting to hear the stereotypical *fresa* style, which would include a cluster of variants and not just a single one. This would point to what Escobar et al. (2012) argued: this intonation pattern does not have a social meaning on its own but needs to be embedded within other linguistic elements of the *fresa* style.

Thus, in order to reject at least some of these possibilities, a second round of data was collected using the same matched guise stimuli and was conducted in Mexico – in the same city from where the speakers are – along with other new tasks. Thus, I will return to this discussion later in this chapter. For now, I turn to explain the methodology used in the second round of data collection.

**4.3 Round 2**

4.3.1 Methodology
The purposes of collecting more data on the social perception of the rises were: 1) to see if the non-significant results in round 1 were due to testing the wrong listening population, 2) to explore results with a different methodology, 3) to test natural steep rises and compare them to manipulated rises and 4) to collect other possible social meanings associated with the category *fresa* for future research. Thus, the same matched guise stimuli were used in this data collection plus other implemented tasks in order to have a better insight into the effectiveness of the methodology in round 1. The added, second task was an overt comparison of two versions of the same audio clip, differing in
intonation contour only (see *Materials* below for details). A third and fourth task had to do with locating particular characteristics of the category *fresa*. The objective of this last task was to obtain further possible social meanings of linguistic features to be used in future research, i.e., looking for these specific characteristics to be possible social meanings of linguistic features instead of the social type as a whole.

### 4.3.1.1 Participants

41 Mexicans (*Mean* age = 19; 12 females, 29 males) participated. All were native speakers of Mexican Spanish from Guadalajara and 30 of them reported to know English. Participants were recruited by invitation in a technical college and high school in Guadalajara, thus most of them were students with the exception of a few instructors. These participants filled out the same demographic questionnaire as in round 1 (see Appendix F). A summary of the participants’ characteristics in relation to the *fresa* category is shown in the following graphs.

![Bar graph showing familiarity with the category *fresa*](image)

**Figure 19.** This shows number of participants and their familiarity with the category *fresa*
Figure 20. This shows how often others have called participants fresa

Figure 21. This shows the level of agreement with the statement that the participants call themselves fresas and that they have fresa friends.

4.3.1.2 Materials

The same materials from round 1 were used plus the materials of three more tasks. The first task was exactly the same as in round 1—the matched guise task. The second task involved listening to 6 audios (3 audios from task 1, plus 3 new audios) with two versions each in a way that the two variants were overtly shown and then participants answered some questions asked by the researcher (Appendix C, details of this new materials
following below). The third task elicited 5 general characteristics that participants thought defined *fresas* (Appendix D). For the last task, participants were given different statements about *fresas* taken from the media analysis shown in Chapter 2 and then asked to provide their level of agreement with each (Appendix E).

### 4.3.1.2.1 New Stimuli for task 2

In task 1, the matched guise, there were three versions of each audio – the control version with either falling or level contour, another with a medium rise and one with a steep rise - from which participants only heard one version. In task 2, the aim was to have participants be able to contrast the variants, thus there were two sets with only two variants each. The reason for showing two variants at a time instead of the three intonation contours was to avoid participants feeling cognitively overwhelmed for trying to remember three versions of the same audio at once. Thus, there were two new sets, A & B, for the second task, from which participants heard only one. Each set had 6 audio clips with two versions. Set A had 6 clips with the variant, medium rise (non *fresa* rise) and steep rise (*a fresa* rise). Set B also had 6 clips with two versions each, one version with a falling contour and one with the steep rise contour (*fresa* rise). Thus, one set aimed to compare the two rises and the other set to contrast the steep rise vs. a falling contour.

From those 6 audio clips in each set, 3 were taken from the stimuli used in the matched guise (numbers 8, 11 and 15). They were taken to represent three different levels on a *fresa* scale based on their ratings. None of the audios regarded as very *fresa* were used in these three (e.g., audio clip 17). The other three audio clips were taken from conversations where spontaneous steep rises were produced. Two of these audio clips were produced by people who had consistently been rated as *fresa* previously, and a last
excerpt was taken from a complete new audio file from the same conversational Corpus. The insertion of natural steep rises in the stimuli was intended to test if there was a difference in social perception between these and the manipulated stimuli.

*Manipulation of three new audios in task 2*

Since 3 audios used in task two had natural steep rises, I created their versions with a medium rise and with falling contours. In audios 5 and 6, the very last peak did not appear in the manipulation window, making it impossible to manipulate the f0 to create a medium rise. Thus, the non-steep rise was created by cutting the last peak, producing a range of 50 hertz range like the ones found in the production data. For audio 4, a steep rise produced by Raquel was manipulated with the same script used for the matched guise. The original had a range of 152 hertz (min. 233, max. 385) while the manipulated one had a range of 91hz range (min. 233, max. 326).

For the falling versions, I used the versions with the medium rises because otherwise it was impossible to manipulate those parts (again, the peaks of audio 5 and 6 did not appear in the manipulation window but they were audible). Using these versions, I created the versions with a falling contour using again the Praat function *Manipulate*.

4.3.1.3 Procedure

All of the tasks were administered face to face in a quiet room of a school in Guadalajara. Participants were told that there would be four activities total. The researcher gave the instructions of each activity at the beginning of each one (not all instruction at once). For the first task, everything was done in the same way as in round 1 of data collection. Participants were told they would have to listen to 20 very short audio clips extracted from spontaneous conversations and that each had a short context to read before playing
it, in order to understand the audio better and more easily. After listening to the audio, they were asked to provide their level of agreement with the statement that the speaker is a member of the studied social category, *fresa*. The researcher reminded them that there was no right or wrong answer because the study was about perception, so it was more of a first instinct task. They were instructed to use the headphones provided and to do the practice audio trial while the researcher was in the room, to make sure they did not have any more questions before starting the activity. Once the participant felt secure to start, the researcher left the room and waited for them to continue with task 2. Participants were able to go at their own pace and play the clips as many times as they wanted.

Then, the researcher conducted task 2 in the room with the participants. They were told they would listen to six clips that had two almost identical versions each; the researcher gave participants the example of activities where there are two pictures that are almost the same and they have to find the small differences. They were asked 1) if they were able to find a difference between the audios and 2) if they associated any/both/neither of those versions with *fresas* or any specific type of person. The activity was conducted in an open way in order to obtain more insights from the participants. The researcher played the audio clips as many times as the participant wanted.

For the third task, the researcher asked the participants to imagine that she (the researcher) was not Mexican and had never heard of *fresas*, so they needed to define to her what *fresas* were in 5 words/characteristics. Participants were left alone for this activity after given instructions. For the final task, the researcher asked participants to provide their level of agreement with each statement that intended to define the category of *fresa*; participants also answered this alone in the room. At the end, all participants
filled out the demographic questionnaire and were given a movie ticket for their cooperation.

4.3.2 Results

4.3.2.1 Task 1: Matched guise

A one-way ANOVA was used to determine whether or not there was a significant difference among the responses based on the type of intonational contour: falling, medium rise, and steep rise in the matched guise. Results are shown in the following table. Although the means go in the expected direction (falling having the least and the steep rise having the greatest value) the \( p \)-value again is >.05 [\( F(2, 669)= 0.72815, p=0.483186 \)] and thus not significant.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between-treatments</td>
<td>3.6637</td>
<td>2</td>
<td>1.8318</td>
</tr>
<tr>
<td>Within-treatments</td>
<td>1683.0491</td>
<td>669</td>
<td>2.5158</td>
</tr>
<tr>
<td>Total</td>
<td>1686.7128</td>
<td>671</td>
<td></td>
</tr>
</tbody>
</table>

Table 10. ANOVA analysis for entire matched guise in data collection 2.

In order to rule out factors confounding the results, the data was analyzed in different ways besides the ANOVA. For instance, by removing from the data the stimuli that were perceived too *fresa* overall (meaning that there are different variables cuing the *fresa*
category in the audio) as well as the ones where the speaker was perceived more towards the category of naco. In this way, we could say that we are just looking at audio stimuli with middle ratings (i.e., not too fresa, not on the naco side). Still, the result is not significant having a p-value of .409398. Results are shown in following table.

### Summary of ANOVA

<table>
<thead>
<tr>
<th>Treatments</th>
<th>Steep rise</th>
<th>Medium rise</th>
<th>Falling contour</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>462</td>
</tr>
<tr>
<td>ΣX</td>
<td>537</td>
<td>509</td>
<td>504</td>
<td>1550</td>
</tr>
<tr>
<td>Mean</td>
<td>3.487</td>
<td>3.3052</td>
<td>3.2727</td>
<td>3.355</td>
</tr>
<tr>
<td>ΣX²</td>
<td>2195</td>
<td>2057</td>
<td>2006</td>
<td>6258</td>
</tr>
<tr>
<td>Std.Dev.</td>
<td>1.4518</td>
<td>1.5648</td>
<td>1.5266</td>
<td>1.5148</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between-treatments</td>
<td>4.1082</td>
<td>2</td>
<td>2.0541</td>
<td>0.89481</td>
</tr>
<tr>
<td>Within-treatments</td>
<td>1053.6753</td>
<td>459</td>
<td>2.2956</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1057.7835</td>
<td>461</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11. ANOVA analysis for matched guise stimuli with middle ratings

Even if we try different ways of analyzing the data, there is still no significant difference. If we conduct a t-test between the steep rise vs. the falling contour, we still get a p-value of .291333. Or, if we collapse both rises vs. falling contour we get a p-value of .399621 in a t-test. If we conflate both rises and also remove the audio clips highly rated as fresas, a t-test shows a p-value of .32853. Finally, a t-test conflating the rises and removing the audio clips that were rated either low or high as fresas results in a p-value of .693927

In order to see if a specific excerpt yielded significant results, an ANOVA per audio was conducted. The following table summarizes the data per audio.
Table 12. Summary of mean rating per version of each audio (H-steep rise, M-rise, L-leveled/falling contour). Also, p-value of ANOVA is shown.

As we can see from the table, intonation contour was not a significant factor in predicting the rating of any audio clip. The only excerpt that seems to have a closer pattern to the one predicted is #11 and #16. If we conflate the medium rise with the falling contour and compare it to the steep rise in a t-test we obtain a p-value of 0.01639.
Another way to possibly analyze the data is to convert the continuous variable to categorical (yes "fresa" 4-6/no "fresa" 1-3 on the scale). Still, a chi-square statistic results in a \( p \)-value of .774135. Also, if we remove audios from speakers perceived as "fresa" style users (Raquel and Ramiro), and participant 43 who used only 1 or 2 to rate, the chi-square \( p \)-value is .643445.

4.3.2.1.2 Rescaled analysis

Considering that there could be differences among participants in how they rated the stimuli, the data was centered in order to be more comparable. All data centered in an ANOVA results in a \( p \)-value of .203595, as shown in Table 14. Figure 22 shows a box plot of each audio with rescaled ratings in each version of the audio clip.

<table>
<thead>
<tr>
<th>Summary of ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatments</strong></td>
</tr>
<tr>
<td>H</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>( \Sigma X )</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>( \Sigma X^2 )</td>
</tr>
<tr>
<td>Std.Dev.</td>
</tr>
</tbody>
</table>

Table 13. ANOVA of rescaled ratings from matched guise in second data collection.

Again, a t-test of rescaled conflated rises vs. fall results in a \( p \)-value of .41223. A t-test of rescaled data with only steep rise vs. fall results in a \( p \)-value of .287153. Another ANOVA that does not include data from high rated clips (1,2,17,20) results in a \( p \)-value of .538957. Therefore, based on all these analyses of the data coming from the matched guise, intonation contour was not a significant factor in predicting the rating of any audio clip.
Figure 22. Box plots of all audio clip showing rescaled ratings for each variant. Low is for falling or leveled contour, Medium for non-steep rise and High for steep rise. Score 1 is least \textit{fresa}, score 6 is the most \textit{fresa}.

4.3.2.2 Task 2: Overt comparison of variants

This section discusses the results of the second task where two groups of participants listened to two variants side by side. Below, I provide two analyses of the same data.

4.3.2.2.1 Analysis 1

There were two sets of comparison. Set A compared the two types of rises; Set B compared the steep rise versus a falling contour. There were a total of 6 audios that the participants listened to, from which 3 were stimuli from the matched guise (i.e. had manipulated rises) and 3 were new stimuli with natural steep rises. Thus, this results section includes analyses of all audios from each set as well as separated analyses comparing manipulated to natural rises.
For this first analysis, responses were coded with four binary possibilities (yes/no): 1) the (steep) rise was perceived as *fresa*, 2) the other audio (medium rise or falling, depending on set) was perceived as *fresa*, 3) both variants (steep rise and other) were perceived as *fresa* or 4) neither variant (steep rise and other) were perceived as *fresa*. Chi-squares were calculated based on this coding. In the next sections, there are four analyses: one for data in set A, one for data in set B, one comparing sets A & B, and one conflating responses to both rises and comparing them to falling contours.

*Set A: Steep rise vs. medium rise*

In this section I analyze set A, which compares reactions to steep rises (i.e., *fresa*) vs. medium rises (i.e. *other* in tables). The following table summarizes how many times each variant was/was not perceived as *fresa*. A chi-square results in a *p*-value of .79935, which means that steep rises are not particularly perceived as *fresa*.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td>76</td>
<td>45</td>
</tr>
<tr>
<td>Medium rise</td>
<td>71</td>
<td>45</td>
</tr>
</tbody>
</table>

Table 14. All stimuli (manipulated and natural) in Set A categorized or not as *fresa*

If we analyze manipulated stimuli only, we still get a *p*-value of .68834 in a chi-square:
Table 15. Manipulated stimuli only in Set A categorized or not as *fresa*

If we analyze natural rises stimuli only, we still get a $p$-value of .96134:

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td>29</td>
</tr>
<tr>
<td>Medium rise</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 16. Natural rises stimuli only in Set A categorized or not as *fresa*

Now, if we compare only reactions to manipulated steep rises versus natural ones (leaving aside the medium rises; thus, the comparison here is between different audio clips, not different versions of the same audio clip), we do get a $p$-value of .000458:

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td>47</td>
</tr>
<tr>
<td>Medium rise</td>
<td>46</td>
</tr>
</tbody>
</table>

Table 17. Manipulated vs. natural rises in Set A categorized or not as *fresa*

This means that even though steep rises were not associated with *fresa*, overall there is a difference in the way participants responded to stimuli with manipulated rises vs. the
ones with natural rises. As seen in the numbers, participants were more prone to categorize as *fresa* stimuli with natural rises (N=47) than manipulated audio clips (N=29). This can be explained by the fact that the rises are produced by at least two people who have been commonly rated as *fresa* (Raquel and Ramiro; the third speaker has not been rated before). This means that presumably, audio clips with natural steep rises included other cues that primed the *fresa* category. Compared to manipulated rises, which were embedded in audio clips of speakers who are not perceived to use *fresa* style (arguing this based on their ratings), participants did not perceive them as *fresa* as frequently. Overall, this result shows that there was not a problem with (at least these) stimuli, but rather that the steep rise variant is not making a social difference. The fact that there is a difference between stimuli with manipulated vs. spontaneous rises is probably caused by other cues (segmental and/or suprasegmental) associated with *fresa* style.

*Set B: Steep rise vs. falling contour*

In this section I analyze responses to set B, which compares reactions to steep rises (i.e., *fresa*) vs. falling contours. The following table summarizes how many times each variant was/was not perceived as *fresa*. A chi-square shows a $p$-value of .577261, which means that the type of intonation contour is not related to the perception of the category *fresa*:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steep rise</strong></td>
<td>59</td>
<td>39</td>
</tr>
<tr>
<td><strong>Falling contour</strong></td>
<td>50</td>
<td>39</td>
</tr>
</tbody>
</table>

*Table 18. All stimuli (manipulated and natural) in Set B categorized or not as *fresa*
If we analyze manipulated stimuli only, we still get a $p$-value of .201212

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td>21</td>
<td>32</td>
</tr>
<tr>
<td>Falling contour</td>
<td>12</td>
<td>32</td>
</tr>
</tbody>
</table>

Table 19. Manipulated stimuli only in Set B categorized or not as fresa

Also, there is no difference if we analyze natural rises stimuli only:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>Falling contour</td>
<td>38</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 20. Natural rises stimuli only in Set B categorized or not as fresa

However, if we again only compare steep rises, manipulated versus natural ones (leaving aside falling contours), we do get a $p$-value of .000006:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise manipulated</td>
<td>21</td>
<td>32</td>
</tr>
<tr>
<td>Steep rise natural</td>
<td>38</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 21. Manipulated vs. natural rises in Set B categorized or not as fresa

Again, this means that even though the variable intonation was not associated with fresa in set B, there is a difference in the way participants responded to stimuli with manipulated rises vs. the ones with natural rises, as in set A. As seen in the numbers, again participants tended to perceive as fresa stimuli with natural rises more frequently
(N=38) than manipulated ones (N=21). The same explanation as in set A can be argued here. In audio clips with the natural steep rise, speakers produce other cues that prime the *fresa* category, and it is not the case that the rise is the only variant triggering it. Again, if there were a problem with the manipulated stimuli, we would see an effect of the rise in natural stimuli, which is not the case.

*Set A vs Set B*
In this section, I compare the social perception from sets A and B. The following table summarizes all data from both sets: how many times a steep rise was/was not perceived as *fresa* in each set. A chi-square shows a *p*-value of .693332, which means that there is no significant difference between reactions to the steep rise in set A vs. set B. That is, comparing these steep rises to two types of contours (rising and falling) did not make a difference.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set A</td>
<td>76</td>
<td>45</td>
</tr>
<tr>
<td>Steep rise</td>
<td>59</td>
<td>39</td>
</tr>
<tr>
<td>Set B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 22. All stimuli (manipulated and natural) in both sets A & B categorized or not as *fresa*

If we analyze manipulated stimuli only, we still get a *p*-value of .395439:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>manipulated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set A</td>
<td>29</td>
<td>32</td>
</tr>
<tr>
<td>Steep rise</td>
<td>21</td>
<td>32</td>
</tr>
<tr>
<td>manipulated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 23. Manipulated stimuli only in both sets A & B categorized or not as *fresa*
If we analyze natural stimuli only, we still get a $p$-value of .430011:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steep rise natural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set A</td>
<td>47</td>
<td>13</td>
</tr>
<tr>
<td>Steep rise natural</td>
<td>38</td>
<td>7</td>
</tr>
</tbody>
</table>

Set B

Table 24. Natural rises stimuli only in both sets A & B categorized or not as *fresa*

*Rises from Set A & B vs. falling contours in set B*

In this section I collapse reactions to rises (both steep and medium) from sets A and B and compare it to reactions of falling contours in set B, in case there is only a difference between rises and other contours, i.e., instead of a difference between the two rises. The following table summarizes (manipulated and natural) how many times rises were/were not perceived as *fresa*. A chi-square shows a $p$-value of .111023, which means that there is no significant difference between reactions to *rises* (manipulated and natural) and falling contours:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rises sets A &amp; B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Falling contours set B</strong></td>
<td>50</td>
<td>39</td>
</tr>
</tbody>
</table>

Table 25. Reactions to all stimuli (manipulated and natural) comparing rises from sets A & B to falling contours from set B

If we take a look at the results from a chi-square with manipulated stimuli only, there seems to be a small relationship between intonation contour and the *fresa* category ($p$-
value is .045592), such that rises are more frequently perceived as *fresa* than falling contours. This is interesting in that it shows that this rising contour may make a social difference when it appears in a style not necessarily *fresa*. That is, if a rise appears embedded in *fresa* style (like the natural rises in this stimuli), it might not make it more *fresa*. This is seen by the fact that this only occurs with manipulated stimuli and not with natural rises.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rises set A &amp; B</strong></td>
<td>75 (69.2)</td>
<td>96 (101.8)</td>
<td>171</td>
</tr>
<tr>
<td><strong>Falling contours set B</strong></td>
<td>12 (17.8)</td>
<td>32 (26.2)</td>
<td>44</td>
</tr>
</tbody>
</table>

**Marginal Column**

|                      | 87       | 128      | 215 (Grand Total)  |

Table 26. Reactions to manipulated only rises from Set A & B vs. falling contour from set B

Note: Expected cell count appear in parenthesis and chi-square statistic in brackets

4.3.2.2.2 Analysis 2

In a second analysis, the data was coded differently. Since participants had the option to say that both clips were either *equally* *fresa* or *one more* than the other, this second analysis takes into account which one was rendered as more *fresa*. This distinction was not made in the first analysis; in the first one, I had coded as *yes* for both variants, even if participants had said that one was more *fresa* than the other. Thus, the way I did the second analysis was coding as *yes* only the one that sounded more *fresa* from both (even though they said that both clips sounded *fresa*). For instance, in analysis 1, I coded “yes” for both variants of audio #1 for participant 32 because the person said both sounded
*fresa,* even though he said that the second variant sounded more *fresa* than the first. In analysis 2, I coded as “yes” just that second variant and as “no” the first one. In this analysis, I only coded both variants as “yes” if participants said that they both sounded *equally fresa.* I present the results for set A (steep rise vs. medium rise) first, then for set B (steep rise vs. fall).

**Set A**

Set A consisted in a comparison between the steep rise and the medium rise. All data analyzed in a chi-square statistic results in a *p*-value of .001431.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steep rise</strong></td>
<td>73 (60.5) [2.58]</td>
<td>50 (62.5) [2.5]</td>
<td>123</td>
</tr>
<tr>
<td><strong>Medium rise</strong></td>
<td>48 (60.5) [2.58]</td>
<td>75 (62.5) [2.5]</td>
<td>123</td>
</tr>
<tr>
<td><strong>Marginal Column</strong></td>
<td>121</td>
<td>125</td>
<td>246 (Grand Total)</td>
</tr>
</tbody>
</table>

**Table 27. Reactions to all stimuli from Set A (second coding)**

These results are interesting because it means that even though people could not hear a difference between the two rises (remember participants were asked first if they could hear a difference), they deemed the steep rise as more *fresa* more frequently than the medium rise.

Overall, the odds of participants saying *sounds like fresa* to the steep rise are over two times greater than the odds of participants responding in this way to a medium rise:
If we look at manipulated steep rises only from set A, we get a $p$-value of .026388:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep rise</td>
<td>29 (23) [1.57]</td>
<td>34 (40) [0.9]</td>
<td>63</td>
</tr>
<tr>
<td>Medium rise</td>
<td>17 (23) [1.57]</td>
<td>46 (40) [0.9]</td>
<td>63</td>
</tr>
<tr>
<td>Marginal Column Totals</td>
<td>46</td>
<td>80</td>
<td>126 (Grand Total)</td>
</tr>
</tbody>
</table>

Table 28. Reactions to manipulated stimuli from Set A (second coding)

Still, the odds of participants saying *yes it is more fresa* are over two times greater in manipulated steep rise than in medium rise:

| Odds ratio | 2.3080 |
| 95 % CI:    | 1.0957 to 4.8613 |
| z statistic | 2.201 |
| Significance level | $P = 0.0278$ |
If we look at natural steep rises only, we get a $p$-value of .014234:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steep rise</strong></td>
<td>44 (37.5) [1.13]</td>
<td>16 (22.5) [1.88]</td>
<td>60</td>
</tr>
<tr>
<td><strong>Medium rise</strong></td>
<td>31 (37.5) [1.13]</td>
<td>29 (22.5) [1.88]</td>
<td>60</td>
</tr>
<tr>
<td><strong>Marginal Column Totals</strong></td>
<td>75</td>
<td>45</td>
<td>120 (Grand Total)</td>
</tr>
</tbody>
</table>

Table 29. Reactions to natural rises stimuli from Set A (second coding)

The odds of participants saying *yes it is more fresa* also in natural steep rises than in medium rises are over two times greater:

- **Odds ratio**: 2.5726
- **95 % CI**: 1.1982 to 5.5233
- **z statistic**: 2.424
- **Significance level**: $P = 0.0154$

If we compare manipulated steep rises vs. natural steep rises, we also get a $p$-value of .002061:
85

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steep manipulated</strong></td>
<td>29 (37.39) [1.88]</td>
<td>34 (25.61) [2.75]</td>
<td>63</td>
</tr>
<tr>
<td><strong>Steep natural</strong></td>
<td>44 (35.61) [1.98]</td>
<td>16 (24.39) [2.89]</td>
<td>60</td>
</tr>
<tr>
<td><strong>Marginal Column Totals</strong></td>
<td>73</td>
<td>50</td>
<td>123 (Grand Total)</td>
</tr>
</tbody>
</table>

Table 30. Reactions to manipulated vs. natural steep rises from Set A (second coding)

Thus, in this analysis we see again a difference in social perception between manipulated and natural steep rises. The odds of participants saying *yes it is more fresa* are lower for manipulated steep rises than for natural ones:

- **Odds ratio**: 0.3102
- **95 % CI**: 0.1455 to 0.6611
- **z statistic**: 3.032
- **Significance level**: P = 0.0024

Since both, manipulated and natural audio clips with steep rise, were significantly more frequently perceived as *fresa* when compared to medium rises, this last difference probably surfaces again from the natural steep rises being embedded in a context where other variables related to *fresa* style occur. Notice then, that this comparison involves different audio clips—not different versions of the same audio clip—, the ones that were manipulated in order to have a steep rise, and the ones that originally had a steep rise in it.
Set B

Set B includes a comparison between steep rises vs. falls. A chi-square statistic for all data in set B in the second coding results in a *p*-value of .000766:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steep rises</strong></td>
<td>53 (41) [3.51]</td>
<td>55 (67) [2.15]</td>
<td>108</td>
</tr>
<tr>
<td><strong>Falls</strong></td>
<td>29 (41) [3.51]</td>
<td>79 (67) [2.15]</td>
<td>108</td>
</tr>
<tr>
<td><strong>Marginal Column Totals</strong></td>
<td>82</td>
<td>134</td>
<td>216 (Grand Total)</td>
</tr>
</tbody>
</table>

Table 31. Reactions to all stimuli from Set B (second coding)

Overall, audio clips with the steep rise variant are more than twice likely to be perceived as *fresa* than the ones with falling contours:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Odds ratio</td>
<td>2.6251</td>
</tr>
<tr>
<td>95 % CI:</td>
<td>1.4865 to 4.6358</td>
</tr>
<tr>
<td>z statistic</td>
<td>3.326</td>
</tr>
<tr>
<td>Significance level</td>
<td><em>P</em> = 0.0009</td>
</tr>
</tbody>
</table>

If we again separate by type of stimuli, for the manipulated we still get a *p*-value of .011181:
<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manipulated Steep rises</strong></td>
<td>21</td>
<td>38</td>
<td>59</td>
</tr>
<tr>
<td><strong>Falling contour</strong></td>
<td>9</td>
<td>50</td>
<td>59</td>
</tr>
<tr>
<td><strong>Marginal Column Totals</strong></td>
<td>30</td>
<td>88</td>
<td>118 (Grand Total)</td>
</tr>
</tbody>
</table>

Table 32. Reactions to manipulated only stimuli from Set B (second coding)

The odds of participants saying *yes it is more fresa* to manipulated audio clips with rises than the ones with a falling contour are over three times greater:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Odds ratio</strong></td>
<td>3.0702</td>
</tr>
<tr>
<td><strong>95 % CI:</strong></td>
<td>1.2639 to 7.4578</td>
</tr>
<tr>
<td><strong>z statistic</strong></td>
<td>2.477</td>
</tr>
<tr>
<td><strong>Significance level</strong></td>
<td><em>P = 0.0132</em></td>
</tr>
</tbody>
</table>

If we look at natural rises only, another chi-square results in a *p*-value of .015144:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural steep rises</strong></td>
<td>32</td>
<td>17</td>
<td>49</td>
</tr>
<tr>
<td><strong>Falling contours</strong></td>
<td>20</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td><strong>Marginal Column Totals</strong></td>
<td>52</td>
<td>46</td>
<td>98 (Grand Total)</td>
</tr>
</tbody>
</table>

Table 33. Reactions to natural steep rises stimuli from Set B (second coding)
The odds of participants saying *yes it is more fresa* to audio clips with natural rises than the ones with a falling contour are over two times greater:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Odds ratio</td>
<td>2.7294</td>
<td></td>
</tr>
<tr>
<td>95 % CI:</td>
<td>1.2035</td>
<td>to 6.1902</td>
</tr>
<tr>
<td>z statistic</td>
<td>2.403</td>
<td></td>
</tr>
<tr>
<td>Significance level</td>
<td>P = 0.0162</td>
<td></td>
</tr>
</tbody>
</table>

If we compare responses to manipulated vs. natural rises, we get a p-value of .002104:

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Marginal Row</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Totals</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td>108 (Grand Total)</td>
</tr>
<tr>
<td><strong>Manipulated steep rise</strong></td>
<td></td>
<td></td>
<td>59</td>
</tr>
<tr>
<td>Yes</td>
<td>21 (28.95)</td>
<td>38 (30.05)</td>
<td>59</td>
</tr>
<tr>
<td>No</td>
<td>32 (24.05)</td>
<td>17 (24.95)</td>
<td>49</td>
</tr>
</tbody>
</table>

Table 34. Comparison between the reactions to manipulated rise vs. natural rise in set B

Again, the odds of participants saying *yes it is more fresa* to audio clips with manipulated rises than with natural ones are significantly lower:
Once again, we see this pattern where the audio clips that originally had a steep rise are more frequently perceived as *fresa*. Thus, notice that it does not mean that the manipulated stimuli did not work but that, overall, these audio clips are less frequently perceived as *fresa* when compared to the ones that originally had the rise. This is seen in that, on their own, manipulated audio clips were also more frequently perceived as more *fresa* when compared to falling contours—in dataset B, shown in Table 34. Then, this difference between types of audio clips—not versions of intonation contours—might come from natural rises being embedded in clips that have other cues that signal *fresa* style. In Podesva (2008) terms, the natural rises might occur in specific interactional moments where a cluster of symbolic (linguistic and non-linguistic) features construes a more prototypical meaning of *fresa*. Thus, regardless of the rise, they are overall perceived as more *fresa* more frequently.

### 4.4 General Discussion

The results presented above do not provide a clear-cut answer in regards to whether a steep rising contour in declarative sentences indexes the social category of *fresa*. On the one hand, we see that the matched guise task resulted in non-significant results in both
data collections, the one conducted in the US and the one directly in Mexico. Since the first round had participants living in the US, a second data collection was conducted to see if the first results were due to the tested population. However, both data sets show that a declarative sentence produced with a steep rising contour does not automatically make the speaker be perceived as more *fresa*. On the other hand, how can we explain that this feature—steep rising contours in declarative sentences—has been noticed in other research (Holguín-Mendoza, 2011), in the media analysis presented in Chapter 2, and in the data production in Chapter 3. Furthermore, how can it be that the second analysis of the data from task 2 (the overt comparison of the different intonation contours) does point to the social perception of a distinction?

Based on the results of the second task, we can discard at least one previous hypothesis about the results from the matched guise methodology. It is the case that manipulated rising contours did represent the natural steep rises encountered in production data. We see this in different results. For instance, in none of the analyses we find that participants perceived the audio clips with natural rises as *fresa* but not in the manipulated ones. And although we see a difference in that audio clips with natural rises as *fresa* have better odds of being perceived as *fresa* than the manipulated ones, I argue that this points more to the fact of the contour being embedded in a *fresa* style cluster (in Podesva’s 2008 terms) than to a difference of the manipulated stimuli. Thus, overall, it seems that the manipulation of *f0* is a viable methodology for research in linguistic social meaning.

Other hypotheses about the results from the matched guise methodology are rather inconclusive and in need of further research. One is the appropriateness of the
dependent variable—a social category. As mentioned before, maybe there is a difference in the speaker’s perceived stance or specific personality traits, but not the social type as a whole. This is not fully supported by the results of the second task but it could be explored in further research based in the data collected from task 3 and 4\textsuperscript{16}. Another explanation for the results of the matched guise is that although the investigated linguistic feature is part of the \textit{fresa} style, when listeners focused on the stimuli, they paid attention to the overall audio clip. This implies something similar to what Escobar et al. (2012) argued: this intonation pattern does not have a social meaning on its own but needs to be embedded within other linguistic elements of the \textit{fresa} style.

Of course, a final argument to explain the conflicting results of the matched guise and the overt comparison is the methodology used itself. While the covert methodology did not show any significant result, the second task provided some evidence for the rising contour to have the social meaning of \textit{fresa}. Although interestingly, it has to be pointed out, this result came about during a second analysis where \textit{fresa} was coded in terms of degrees—more \textit{fresa}, less \textit{fresa}. Based on these results, it seems that once you force listeners’ attention towards intonation, then they do perceive it as socially salient. In fact, the most interesting result was the one regarding the two types of rises. Despite participants not being able to reliably distinguish one audio clip from the other, they responded that the steeper rising contour sounded more \textit{fresa}. Altogether, all of these results point more to the beginning of a discussion on the social significance of rising contours in Mexican Spanish than to a definite answer about them.

\textsuperscript{16} The results of these tasks are not presented here because they do not directly relate to the research question of the Chapter. It was collected for future research purposes.
4.5 Conclusions
In this chapter, I presented a study on the social perception of rising contours in declarative sentences in Spanish from Guadalajara, Mexico. The objective was to determine if this linguistic feature –rising contours in declarative sentences- indexes the *fresa* category. The techniques used to test this prediction were a matched guise task and an overt comparison between intonation contours. There were two data sets collected using the matched guise (one with Mexicans living in the US and one in Guadalajara, Mexico). Both data sets showed no effect of intonation contour on the perceived social category –*fresa*. However, results from the overt comparison between intonation contours provide some evidence that intonation contour does make some social difference. In this case, in the degree of prototypicality of the social type, i.e., steep rising contours making speakers sound more *fresa* than other non-steep rising and falling contours. Thus, despite inconclusive results in need of further research beyond the scope of this dissertation, we can say that rising contours in declarative sentences are part of *fresa* style and that maybe other factors, such as vowel lengthening, might play a role in the social meaning of *fresa*. 
Chapter 5: Linguistic Styles and Visual Information. The Effect of Stereotype Congruence on Social Meanings

5.1 Introduction

One of the objects of study in sociolinguistics is how language can provide social information to listeners about the speakers – from personality traits to social categories. This information is known as the social meaning of a linguistic variable (Coupland, 2007). However, social meanings are not static (Eckert, 2008), which means that they vary across people depending on different linguistic and non-linguistic factors (Campbell-Kibler, 2006). The overall aim of this chapter is to look at variation of social meanings by testing one specific factor: stereotype congruence between visual and linguistic information. This concept refers to stimuli that “fit together” because they are stereotype consistent. For example, a white person speaking Standard American English (SAE) is considered more stereotype congruent than an Asian speaker of SAE (McGowan, 2015). Despite other studies showing the effects of stereotype (in)congruence on issues such as memory (Araya et al., 2003), racial categorization (Bartholow & Dickter, 2008) and even speech perception (Johnson, 1997), research in regards to social meaning has not fully considered this factor. Therefore, the main objective of this chapter is to observe if stereotype congruence –between visual and auditory cues- plays a role in the variability of social meaning.

In order to look at the role of stereotype congruence in the variability of social meaning, this research takes as a case study two stereotypes in Mexican Spanish: *fresa* and *naco*. As shown in Chapter 2, while *fresas* are perceived as the privileged youth of the upper class, predominantly European-descent, and assimilated into the American
lifestyle, *nacos* are perceived as their counterpart; they are seen as lower class, lacking education, and as having bad taste (Lomnitz, 2001). While both have a specific linguistic style, a *fresa* sociolinguistic variant is perceived as indexing high social status, making the use of *fresa* variants a somewhat desirable style to out-group members. The question is: Can the linguistic style on its own give you the status of *fresa* or do you also have to look *fresa*? What happens to the social meaning attached to the style when there is no stereotype congruence with the visual information?

This paper chapter is divided into six main sections: first, I present a summary of the theoretical background; then, I provide a description of the two stereotypes *fresa* and *naco*. Later, I explain the methodology of the experiment that tested the effect of stereotype congruence on social meaning, provide the results, a brief discussion and the implications of the results.

### 5.2 Background: Language, Social Meaning and Cognition

Since the groundbreaking work of Lambert *et al.* (1960), the social meanings of entire languages or of more specific points of phonetic variation have also been studied from an experimental approach in sociolinguistics. Much research has shown that the use of a specific variant can point to a *social category*, a *personality trait* or to a certain *stance* of the speaker (Podesva, 2008). Still, many studies have found that the indexed social meaning depends upon many factors, not on the use of a language or variant exclusively. According to Eckert (2008) there are no fixed meanings but instead “indexical fields” or dimensions in which the social meanings of variants can be construed. The author reviews evidence from different studies on several linguistic variables and how their social meanings can diverge. She states:
…which of the meanings in the indexical field the hearer will associate with a given occurrence will depend on both the perspective of the hearer and the style in which it is embedded – which includes not only the rest of the linguistic form of the utterance but the content of the utterance as well.” (466)

According to Campbell-Kibler (2006), social meanings cannot be random but are construed by different aspects such as different levels of saliency, cognitive limits and the habits speaker/listeners form over time, in addition to the language-internal context. Thus, there are many factors constraining the ultimate social meaning(s) of a variant, including the listeners’ background (top-down processing) as well as information in the stimuli (i.e., bottom-up processing, such as linguistic and social information, etc.). For instance, Johnstone and Kiesling (2008) found that the group membership of the hearer influences the social perception of the monophthongization of /aw/ in Pittsburgh. Similarly, Podesva et al. (2015) found that listeners’ previous knowledge of and political alignment with well known political figures influences the social perception of released /t/ in these speakers’ English.

Furthermore, some linguistic variants seem to have a more stable social meaning compared to others. This probably has to do with the fact that some variants are more like what Labov (1972) called sociolinguistic stereotypes, which he defined as …socially marked forms prominently labeled by society […] they are referred to and talked about by members of the speech community; they may have a general label, and a characteristic phrase which serves equally well to identify them (314).
Labov (1972) points out that, compared to the other types of variants, (indicators, which are variants correlated to a social group but not subject to style shifting, and markers, which are variants with both social and stylistic stratification, but below the level of consciousness), sociolinguistic stereotypes are available for speakers to comment on, to imitate, and are heavily ideologically loaded. In terms of cognition, the assumption behind stereotypes is that the social meaning and the linguistic form that are combined in a stereotype have a stronger connection – in the sense of accumulated mental connections, see Bybee (2010: 23) – than indicators and markers. And although there has been research on sociolinguistic stereotypes (e.g., Ling Lai, 2007; Inigo, 2008; Bennet, 2012; Buchstaller, 2006), the relationship among language, stereotypes and social meaning has been under-theorized. Thus, bearing in mind that all social and linguistic information is stored together in memory (Bybee 2010), and that they are activated simultaneously, I argue that it is necessary to study social meanings within the context of the social group as a whole if we want to gain more insight into how these are actually construed (i.e., not focusing on language exclusively).

This brings us to the next important point: stereotype congruence. Although we are warned about stereotypes, we automatically activate them and use that biased information (Devine, 1989). In fact, we evaluate people differently depending on the stereotype congruence we find in them. The effects of stereotype (in)congruence have been studied in realms outside linguistics in regards to different aspects, such as change in the content of stereotypes (Maris & Hoorens, 2012); racial categorization (Bartholow & Dickter, 2008); social relationships (Zebrowitz & Lee, 1999); trait inferences (Maass et al., 2005); neural activity (White et al., 2009); interpersonal judgments (Costrich et al.,
1975; Krueger et al., 1995) and memory (Araya et al., 2003; Stangor & McMillan, 1992). In this line of research, it has been found that “inferences from behaviors to traits […] is facilitated by stereotype congruence but inhibited by incongruence” (Maass et al., 2005) and that

“Stereotype-incongruent individuals [are] seen as less typical than congruent individuals, elicited more surprise, polarized evaluations, and led to more extensive search for causal attributions” (Krueger et al., 1995: 89).

In sociolinguistics, an example might be that of Campbell-Kibler (2006). During the open interviews she conducted, she was able to demonstrate – inadvertently – some sort of influence of stereotype incongruence on the social meaning of (ING). In her materials for the matched guise and open interviews, she used speakers with a U.S. southern accent and speakers from California. When speakers from the South produced the alveolar (ING), they were perceived as relaxed; and when the speakers from California produced the velar (ING), they were perceived as educated. However, if the pattern was in the opposite direction – i.e., speakers from the South producing velar and speakers from California producing alveolar -ING), they were perceived as pretentious and as lazy, respectively. Thus, it seemed that subjects judged the speakers based on comparing their variant repertoire to the sociolinguistic stereotype of (ING). In other words, this reaction has to do with the violation of expectations due to automatic stereotype activation. For instance, when the sociolinguistic stereotype of velar (ING) was presented along with linguistic variants that belong to the social stereotype “Southern people”, this was interpreted as “incongruous” and thus participants in the interview rationalized the reason for this incongruence: “they are trying to sound intelligent”. So, even though Campbell-
Kibler was not really measuring this effect, her results suggest an effect of stereotype in/congruence on social meaning within auditory stimuli.

Furthermore, one could presume that visual cues also play a role in the variability of social meanings because they evidently provide social information about speakers. Despite sociolinguistic research in speech perception looking at the integration of both modalities, visual and audio stimuli (e.g., Strand and Johnson, 1996; Hay et al., 2006), the effect of visual information on social meanings has not been empirically questioned. That is, the effect of appearance on the variance of social meanings has not been measured in a controlled experiment— and in fact, visual information is seldom used as part of the research designs on social meanings. This is a gap in the literature since both, visual along with auditory stimuli, are the most important factors in forming the first impressions of a person (Campanella & Belin, 2007), to the point that there is more neural activity when processing a combination of audio and visual social information compared to either auditory or visual stimuli alone (Pourtois et al., 2005, cited in Rule & Ambady, 2008). Thus the question is: How are stereotyped linguistic variants socially interpreted when they are produced along with the predicted linguistic and extralinguistic features versus when they are not? That is, how are linguistic variants interpreted when all the (linguistic and non linguistic) information is stereotype congruent—stimuli fit among each other because it is category consistent— compared to when there is incongruence— the stimuli do not fit among each other because it is not category consistent? In the present research, I argue that stereotype congruence between linguistic style and visual information has an effect on the social meaning that linguistic forms acquire.
In this research, by social meaning I specifically refer to social categorization, understood as one of the outcomes of the process of impression formation. In other words, impression formation can result in other elements that could be considered social meanings, such as personality traits or stances. But for the purposes of this research I consider social categorization only. Based on a spreading or networking activation model (McClelland & Cleeremans, 2009), it is assumed that listeners are led to or inhibited from socially categorizing speakers depending on the congruence between the auditory and visual information provided. That is, when there is stereotype congruence between speech and physical appearance, several of the features associated with one stereotype are going to be activated through both channels, making it easier for people to categorize. In contrast, in cases of stereotype incongruence, the auditory cues will activate the features associated with one stereotype and the visual cues will activate the features associated with an opposite stereotype. The following are the research questions:

Q1: When both cues—linguistic style and visual information—are present, does one uniquely determine social meaning? Or do the cues integrate?

Q2: If the cues integrate, does one type have a stronger effect on social meaning?

Q3: If the cues integrate, is it in an additive fashion or do they interact?

In order to respond to these questions, I look at a case study of the stereotypes of fresas and nacos in Mexican Spanish. The next section provides a brief description of these stereotypes.
5.3 Case Study: Fresas and Nacos in Mexico

As seen in Chapter 2, fresas are perceived in Mexico as the privileged children of the predominantly European-descent elite (Mendoza-Denton, 2008). They have an expensive lifestyle, behave pretentiously and speak in distinctive style that differs from standard Mexican Spanish (Córdova Abundis & Corona Zenil, 2002). Due to their cultural salience over decades, fresas have been repeatedly featured in TV shows, such as comedies and soap operas. Specifically, they are always portrayed as speaking in a unique style. Furthermore, this stereotype is a good case to answer the theoretical questions in regards to the effect of congruence on the processing of social meaning mainly for two reasons. For one, this sociolinguistic stereotype is tied to many other visual characteristics (as explained in Chapter 2), which makes it appropriate to study congruence between appearance and linguistic style. The second reason has to do with the fact that this stereotype is seen as the opposition of another group: nacos, who are perceived as part of the Mexican working class that deviate from what upper class society deems as proper and stylish. And, just as in the case of fresas, the Mexican naco style not only includes a linguistic style but also a specific visual appearance.

What makes this case of two opposed stereotypes suitable for this research is that since fresa style gained the social meaning of high social status, it is possible that other non-prototypically fresa people started using the style. However, these speakers might be classified as “wannabes”. That is, due to an essentialist thinking, listeners might not give them credit for it because they judge it as inauthentic, given that the linguistic styles are understood to iconically reflect the true essence of these speakers – fresa, in this case. Thus, the present study looks at congruence between linguistic style and appearance as a
possible factor affecting the social meaning. The following section describes the methods used.

➢ Hypotheses

Q1: When both cues –linguistic style and visual information– are present, does one uniquely determine social meaning? Or do the cues integrate?

Hypothesis a): Speakers will be socially categorized as *fresa/naco* on the basis of linguistic information only.

Hypothesis b): Speakers will be socially categorized as *fresa/naco* on the basis of visual information only.

Hypothesis c): Speakers will be socially categorized as *fresa/naco* on the basis of integrating visual information and linguistic information.

Q2: If the cues integrate (hypothesis c, Q1), does one type have a stronger effect on social meaning?

Hypothesis a): Speakers will be socially categorized as *fresa/naco* primarily on the basis of linguistic style.

Hypothesis b): Speakers will be socially categorized as *fresa/naco* primarily on the basis of visual information.

Q3: If the cues integrate, is it in an additive function or do they interact?

Hypothesis a): Linguistic style and visual information interact in order to construe social meaning.
Hypothesis b): Linguistic style and visual information have an additive effect on social meanings.

5.4 Methodology

The present work sought to test the effect of the image when it activates a different social category than the one cued by speech on social meaning, i.e. the effect of stereotype incongruence on social categorization. If the social category activated by the image indeed affects social meanings, we expect a gradual shift in how people socially categorize the same audio excerpt. To test this, I conducted an experiment where audio clips with six different degrees of fitness –i.e., how well an object instantiates a category- in regards to two sociolinguistic stereotypes (*fresas* and *nacos*) were paired with pictures also with six different degrees of fitness in regards to the same stereotypes. Participants (*n* = 97) had to socially categorize, in terms of one holistic judgment, pairs of audio clips and pictures that were part of a continuum from *naco* to *fresa* and from “maximally congruous” to “maximally incongruous” for each. Maximally congruous stimuli refer to the ones that display characteristics associated with a single stereotype through both appearance and speech cues. On the other hand, maximally incongruous stimuli are the ones where the characteristics displayed through appearance conflict with the sociolinguistic stereotype.

5.4.1 Subjects

Ninety-seven subjects were recruited from a college that mixes high school classes with technical coursework in Guadalajara, Mexico (*Mean*$_{age}$ = 22; 33 females, 64 males). The majority were native speakers of the area and/or lived there. Most subjects were students (*n* = 73) with the exception of a few faculty and staff (*n* = 24). All filled out a
demographic questionnaire that included questions in relation to the investigated categories (see Appendix H). Based on this data, most subjects considered themselves out-group members of both categories, but were familiar enough with them for the purposes of the task. Subjects read and signed the approved IRB consent form and were compensated with a movie ticket for participation.

5.4.2 Materials

Task. Subjects were asked to socially categorize twelve young Mexican individuals, six male and six female, in response to seeing a photo and listening to a short audio clip. They responded by providing a score on a 1-6 scale, with the software SuperLab. Thus, the dependent variable was the score representing social categorization. A value of 1 represented “extreme fresa” while 6 represented “extreme naco”. In addition to being asked, “How would you categorize this person?”, subjects were asked to comment on what factors they took into account for the provided score right after observing each stimulus (see Appendix G). The picture appeared automatically on the screen and then participants had to press a key to hear the clip of the person speaking. Audio clips could not be repeated. Once a key was selected, the question “What aspects did you consider for your answer?” appeared on the screen.

Stimuli. In order to conduct the study, pictures and audios that fit the fresa and naco stereotypes were needed for the task. Thus, in this section, I explain in detail the procedure of creating these stimuli. First, I describe how the audio clips and pictures were produced –or where they come from- and then how some of these were selected based on a rating validation.
Photos. This type of stimulus has been obtained in different ways in previous similar research. Some have used databases (e.g., Koops et al., 2008), others pictures from yearbooks (e.g., Pulos and Spilka, 1961), while others have created them altogether in order to control for social information, such as class (e.g., Hay et al., 2006). Taking into account that many visual cues could affect the way a person is perceived (e.g., gestures, background, etc.), a portfolio of pictures was created for the specific purpose of this research. The researcher took all pictures using a digital Fuji FinePix S1800 camera and with a black fabric as background. I obtained 3 pictures of each participant from the waist up. The participants were instructed to pose, in this order, trying to look serious in one, smiling in another, and in whichever way they felt like posing in the last one in order to control for gestures.

In order to have a wide variety of Mexican young women and men that physically and socially appeared to live a Mexican lifestyle (versus Mexicans living in the US) this stage of the research took place in Guadalajara, Mexico. Participants were recruited by word of mouth, emails, personal invitation through three different social networks, including one public and one private university, as well as at the biggest street market of the city. The only prerequisite to participate was to be a Mexican between 18-30 years old, females or males. Participants were offered a movie ticket for their collaboration.

A total of 96 young Mexicans participated, yielding a total of 288 pictures (3 per participant). A sample picture is shown below. Some of these pictures will be used in the
dissertation and also in future similar research\textsuperscript{17}. A total of 153 pictures (51 participants, 3 per person) will remain as a corpus of Mexican youth visual stimuli for future similar investigations.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure23.png}
\caption{Sample picture of stimuli}
\end{figure}

\textit{Audio clips.} First, a sample of 40 audio excerpts was extracted from a conversational corpus of speakers from Guadalajara, Mexico (see Methodology section in Chapter 3 for details on the corpus). These audio clips come from 20 speakers (10 female, 10 male, 2 per speaker). Since age of speaker is important to the stereotype of \textit{fresas} all of the voices selected ranged from 19 to 35 years of age. The clips ranged from 6 to 12 seconds in

\textsuperscript{17}Participants had two options in their consent form: 1) Allowing the researcher to use their pictures in the present and in future similar research, or 2) Use the pictures exclusively in this project.
length (with 14-20 total seconds of speech included as stimulus clip by any one speaker) and were normalized for intensity.

Various aspects were considered for inclusion/exclusion of the audio excerpts. The extraction of these clips was done in random places of the entire recording, taking care to include full intonation units. Also, since the corpus was gathered in natural settings (e.g. locations such as homes) audio with speaker overlaps, mentions of personal names, or too much noise were avoided. Excerpts with the use of English were not included either, as it is another major indicator of *fresa* category, according to the online stereotype study (Chapter 2).

*Stimulus condition validation.* In order to validate the assigned typicality of the stimuli – audio clips and pictures- in regards to the stereotypes and select the right material for the stimuli, independent data was collected and scored by different participants. Thus, 40 pictures were randomly selected from the picture portfolio (20 females, 20 males). Then, 36 Mexicans from Guadalajara rated the pictures and the 40 audio excerpts -described above- on a scale from extreme *fresa* (0) to extreme *naco* (10). Finally, in order to make the coefficients of the linear regression comparable, these ratings were mean-centered (audio clips and pictures separately) on the 6-point scale used for the experimental task.
Selected materials for stimuli. 12 audio excerpts and 12 pictures (6 male, 6 female) were selected based on the validated ratings previously obtained (i.e., only 12 out of the 40 pictures and audio clips rated were chosen, see Appendix A for materials used in validation process and Appendix J for a transcription of the audio clips). 2 pictures and 2 audio clips that were highly typical of the two stereotypes (n= 8), plus 2 picture-audio pairs that were not representative of either stereotype. (n=4), were chosen for both males and females. In order to select these 12 pairs, all items were ranked (pictures and audios separately) from the lowest to the highest original score (1-10). Then, the list of items was divided into only six levels; by taking as the basis the lowest (most fresa-like) and the highest observed scores (most naco-like) and then selecting the rest based on approximately the same interval.

5.4.4 Experimental Design

The experiment had a between-subjects design with a total of 6 groups. Each group listened to 12 different picture-audio pairs, 6 females and 6 males. The stimuli in each list had different degrees of congruence. Table 1 shows the 6 lists in which pictures and audio clips were paired for each group. In the table, pictures and audios are numbered from the “most fresa-like” (1) to the “most naco-like” (6). The first number is the picture number and the second is the audio clip number. Thus, in List 1, the most fresa-like picture was paired with the most fresa-like audio clip, while the second-most fresa-like picture was paired with the audio clip in position number 3 in relation to fresa style, and so on. Notice that each list contains only one fully congruent pair and that all the possible combinations of picture-audio were paired across the lists (36 total). In this way, both
sociolinguistic stereotypes were tested in a single experiment. Each list contained 12 tokens (6 female, 6 male). Each participant encountered the 12 tokens in a random order.

There were 3 practice trials with material not included in the stimuli. Also, before the task, the pictures of the 12 individuals were shown for five seconds on the screen at once in the same order to all participants. Three-second excerpts of each audio clip were also inserted as a single audio clip in the software, so everybody heard pieces of all audios clips in the exact same order ahead of doing the main task. The intention of this was to give subjects the same baseline to rate the stimuli.

<table>
<thead>
<tr>
<th>List 1</th>
<th>List 2</th>
<th>List 3</th>
<th>List 4</th>
<th>List 5</th>
<th>List 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>1-4</td>
<td>1-5</td>
<td>1-6</td>
<td>1-2</td>
<td>1-3</td>
</tr>
<tr>
<td>2-3</td>
<td>2-2</td>
<td>2-6</td>
<td>2-1</td>
<td>2-4</td>
<td>2-5</td>
</tr>
<tr>
<td>3-4</td>
<td>3-5</td>
<td>3-3</td>
<td>3-2</td>
<td>3-6</td>
<td>3-1</td>
</tr>
<tr>
<td>4-5</td>
<td>4-6</td>
<td>4-1</td>
<td>4-4</td>
<td>4-3</td>
<td>4-2</td>
</tr>
<tr>
<td>5-6</td>
<td>5-1</td>
<td>5-2</td>
<td>5-3</td>
<td>5-5</td>
<td>5-4</td>
</tr>
<tr>
<td>6-2</td>
<td>6-3</td>
<td>6-4</td>
<td>6-5</td>
<td>6-1</td>
<td>6-6</td>
</tr>
</tbody>
</table>

Table 35. These are the 6 lists of stimuli for each group of participants in which only one match was fully congruent (yellow), and a pair with extreme incongruence (red). The rest are all the possible combinations.

5.4.5 Procedure

The task was conducted in a quiet room. Subjects first read and signed the consent form. They were told that the research was about social perception, so they needed to see and hear 12 youth from Guadalajara and categorize them on a scale 1 through 6, where 1 meant extremely fresa and 6 extremely naco. Also, they were asked to provide a rationale for each of their given scores.
The researcher conducted the practice trials with the participants. Then, the pictures and excerpts from the audio clips were shown to them under the pretense that the research was about first impressions and I had to make sure they did not know any of the persons. Subjects performed the task on their own, using headphones. At the end, participants filled out the demographic questionnaire and were given a movie ticket for their participation.

5.4.6 Predictions
The research looks at differences in social categorization – in this case, a binary forced choice between two social categories – in both conditions, measured by the values given by the subjects to each audio-picture pair. Thus, based on the research questions and methodology we can make the following predictions:

Q1: When both cues – linguistic style and visual information – are present, does one uniquely determine social meaning? Or do the cues integrate?

Prediction a): Rating scores will change on the basis of linguistic style only.

Prediction b): Rating scores will change on the basis of visual information only.

Prediction c): Rating scores will change on the basis of both cues, visual information and linguistic style.

Q2: If the cues integrate (hypothesis c, Q1), does one type have a stronger effect on social meaning?

Prediction a): Linguistic style will have a stronger effect on rating scores than visual information.
Prediction b): Visual information will have a stronger effect on rating scores than linguistic style.

Q3: If the cues integrate, is it in an additive fashion or do they interact?

Prediction a): Linguistic style and visual information have an additive effect on rating scores. The combined effect of both on the participants’ ratings can be fully predicted from the individual, independent contribution of auditory and visual information.

Prediction b): The joint effect is not additive, one factor mediates the effect of the other. The strength of the effect of linguistic style on rating scores varies depending on the strength of the effect of visual information (and vice versa).

5.5 Results and Statistical Analysis

General results. A total of 8 responses were excluded from the analysis because they were made before listening to the audio – i.e., subjects rated the stimulus only by looking at the photo and did not listen to the audio clip before making the judgment. The remaining 1144 responses were analyzed. Figure 24 shows the mean score that each pairing of an audio clip with a photo received, averaged over the male and female stimulus sets. In the figure, “Photo 1” means “extreme *fresa*” and “Photo 6” means “extreme *naco*”, and it is the same scale for Audio. Thus, Audio clip #1 (extreme *fresa* linguistic style) paired with Photo #1 (extreme *fresa* appearance) obtained a 1.59 mean score, while the same audio clip paired with the Photo 6 obtained an average score of 3.25. Overall, this graph shows a gradual shift in how people socially categorize the same audio excerpt depending on the image they are paired with, and in how the same
image is categorized depending on the associated audio clip. The next section provides statistical evidence of this effect.

![Figure 24. Mean scores of each audio-photo pair.](image)

**Model selection.** In order to statistically analyze the data, a linear model was fit based on a maximal model first. Then, predictors were discarded in a backward selection process using a significance-based approach. Thus, a linear model was fit with score assigned by participant as the dependent variable and image, audio, gender of speaker, sex of participant, and how fresa others perceived the participant as independent variables. Also, four interactions were tested: image and audio, image and gender of the stimuli, image and sex of participants, and audio and sex of participants. The model is shown in Equation 1:
Equation 1

\[ \text{Score} = \beta_0 + \beta_1 \text{Image} + \beta_2 \text{Audio} + \beta_3 \text{Gender of Speaker} \]
\[ + \beta_4 \text{Sex of participant} + \beta_5 \text{Fresa Others} + \beta_6 \text{Image:Audio} \]
\[ + \beta_7 \text{Image:Gender of stimuli} + \beta_8 \text{Image:Sex of participant} \]
\[ + \beta_9 \text{Audio:Sex of participant} \]

where \text{Image} refers to the centered scores of the photos where higher values represent the \text{naco} category. \text{Audio} refers to the audio clip used as stimulus with the same scale as \text{Image}. \text{Gender of speaker} indicates whether the speaker was a male or a female. \text{Sex of the participant} is the self-reported sex by participants. In the model output shown below, “sex” refers to this variable, even though it just says “sex”, not “sex.participant”. \text{Fresa others} refer to how frequently others call the subject \text{fresa} (self-reported in the demographics as well). \text{Image:Audio} captures the interaction effect between the two types of stimuli. \text{Image:Gender of stimuli} represents an interaction between the image and the gender of the speaker, while \text{Image:Sex of participant} measured the interaction of image with the participant’s self reported sex. The last interaction also involves sex of the participant but with audio. The rest of the variables such as age, education, occupation and knowledge of English by participants were not included in the final model because they were not significant.

\text{Statistical Results}. The model was significant (\( F = 107.2, df_1 = 9, df_2 = 1134, \ p < .001 \)) as shown in Table 39. As seen in the coefficients table, Image and Audio each are significant as a main effect. However, since interactions of Image and Audio with the Sex of the Participant were included in the model, the main effects of these have to be interpreted along with the interactions. Thus, the interaction and the main effects are
included in the same plots below. In addition, because of R’s default contrast coding, the main effects coefficients as shown in Table 39 for Image and Audio represent only the female participants. This will be explained in detail below in the discussion. Still, the main effect of Image indicates that if the photo was originally rated as more naco, the subjects assigned a higher score regardless of the audio with which it is paired. Also, the main effect of audio suggests that the more naco the audio was originally rated, the higher the participant’s rating score. This implies that social categorization is influenced by both of these information types.

Residuals:

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>1Q</th>
<th>Median</th>
<th>3Q</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-4.1038</td>
<td>-0.7386</td>
<td>-0.0102</td>
<td>0.7602</td>
<td>3.7607</td>
</tr>
</tbody>
</table>

Coefficients:

|                      | Estimate | Std. Error | t value | Pr(>|t|) |
|----------------------|----------|------------|---------|---------|
| (Intercept)          | 3.53091  | 0.08549    | 41.302  | < 2e-16 *** |
| ImageCent            | 0.40274  | 0.03801    | 10.596  | < 2e-16 *** |
| AudioCent            | 0.39542  | 0.02967    | 13.329  | < 2e-16 *** |
| Gender.SpeakerM      | -0.18886 | 0.06652    | -2.839  | 0.00460 ** |
| SexM                 | -0.03547 | 0.06900    | -0.514  | 0.60732 |
| Fresa.Others         | 0.09650  | 0.03904    | 2.472   | 0.01358 * |
| ImageCent:AudioCent  | -0.02460 | 0.01051    | -2.342  | 0.01935 * |
| ImageCent:Gender.StimuliM | -0.09093 | 0.03940 | -2.308 | 0.02117 * |
| ImageCent:SexM       | -0.09970 | 0.04016    | -2.482  | 0.01320 * |
| AudioCent:SexM       | 0.09477  | 0.03608    | 2.627   | 0.00873 ** |

Signif. codes:   0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 1.083 on 1134 degrees of freedom
Multiple R-squared: 0.4597, Adjusted R-squared: 0.4554
F-statistic: 107.2 on 9 and 1134 DF,  p-value: < 2.2e-16

Table 39. Regression results with the estimated coefficients from equation 1
Note: “Cent” means that these are the centered scores.
The most interesting result is that there is a significant interaction between *Image* and *Audio* \((-0.025, p = 0.019)\), which means that the weight of looks and language on social categorization depends on the stereotypes (i.e., the influence of language and appearance on social perception are not always the same but the effect of one variable depends on the value of the other). This relationship is shown separately for each participant gender group in Figures 25 and 26 below. Note that for each gender group the strength and direction of the interaction effect of image and audio is identical (i.e., there is no three-way interaction with gender), but two other interactions with gender – the relative strength of *Audio* and *Image* (as indicated by the slopes of the surface) – create different slopes, as discussed below. For that reason, the interaction effect of image and audio is shown here separately for each gender group. Overall in this interaction, we see on the one hand, that *Audio* has a stronger effect on social categorization when *Image* has an extreme *fresa* value than when it has an extreme *naco* value (observed in the slopes of the plane along the *Audio* axis – notice how the slope for Audio is steeper at the extreme *fresa* end of the Image scale). Conversely, the effect of *Image* varies with the effect of *Audio*. This means that *Image* has a stronger effect on social categorization when *Audio* is extreme *fresa* than when it is extreme *naco* (observed on the slopes of the plane along the *Photo* axis – notice how again the slope is steeper at the extreme *fresa* end).

Regarding the difference of this interaction across genders, notice how for male participants, the effect of *Image* was slightly weaker than it was for females (notice how the slope for females is steeper and almost reaches 3 in score for the extreme *naco* photo-extreme *fresa* audio); and also, the effect of *Audio* was slightly stronger for men than for women (notice how the slope on the left edge goes beyond score 4 only for males). These
differences taken together, makes the relative strength of Image and Audio very different between men and women.

Overall, these effects can be paraphrased as follows: If you use a naco linguistic style, your visual appearance does not make as much of a difference with respect to whether you will appear fresa or naco; but if you use a fresa style, then visual appearance has a greater effect. Or, if we see it from the opposite direction—the effect of Audio on Image, we can say that if your look is naco-like, your linguistic style makes a smaller difference than if your look is fresa. Thus, notice that the combined effect of Audio and Image is not linear, i.e., not additive. That is, the presence of a high value of fresa or a high value of naco on one of the variables mediates the effect of the other variable. Even though the combined effect is always in the expected direction (i.e. there’s no reversal or cross-over effect), one variable allows for the other to become even stronger or to cause it to remain relatively muted. Importantly, the end of the continuum that allows for the intersecting variable to exert a stronger effect is always the fresa end, whereas the naco end attenuates the effect of the other variable. This again can be seen in Figures 25 and 26, although with a difference in strength of the effect, as already mentioned. Notice in Figure 25 (female participants), the effect of Image is seen on the slope of fresa audio being steeper than the one for naco. In Figure 26, we see the same pattern, except less prominent. Likewise, you can see how the effect of Audio weighs more if Image is fresa, particularly for male participants.
Figure 25. Interaction between Audio and Image for female participants.
“Cent” means that these are the centered scores.

Figure 26. Interaction between Audio and Image for male participants.
“Cent” means that these are the centered scores.
Regarding Speaker Gender, there is a main effect as well as an interaction with Image. The main effect (-.19, \( p = .004 \)) shows that when a stimulus speaker is male, subjects tended to rate the speaker, on average, 0.19 points further towards the fresa end of the scale, which is numerically lower on the 1-6 scale, than when the speaker was female. However, this variable interacts with Image. The variable Image has a stronger effect on responses when the speaker was female than when the speaker was male, as seen in the steeper slope of the regression line in the left panel of Figure 27. This can be interpreted in two directions: female stimulus speakers using a naco-style being rated with higher scores (more toward the naco end) than male stimulus speakers; or male speakers whose speech style generally places them closer to the naco end of the audio scale being rated less naco (i.e., more fresa) than comparable female speakers. This main effect and the interaction are shown in Figure 27.
The last two interactions involved the self-reported *Sex of Participants*. The interaction of this variable with *Audio*, shows that audio had a (slightly) stronger effect on responses of male participants than on responses by females. At the same time, in its interaction with *Image*, results show that Image had a stronger effect on female responses than on male ones. That is, the strength of these two interactions go in opposite directions, i.e., *Audio* is stronger on male participants, but *Image* is slightly stronger on female participants. These interactions were shown in Figures 25 and 26.

Thus, notice that the question of which of the two types of information (*Image* or *Audio*) has a stronger effect on social categorization cannot be answered without reference to the sex of the participant. For male participants, *Audio* made a much larger difference than *Image*. If participants were female, *Audio* and *Image* were about equally strong (as it can be seen by comparing the main effect coefficients of *Image* and *Audio* in Table 39, .40 and .39, respectively).

Finally, there is also an effect of how often subjects are perceived by others as *fresa* (.09, *p* = .013, shown in Figure 29). The more often others perceive the subjects as *fresas*, the higher subjects rate the stimuli (i.e., they perceive stimuli less *fresa*). However, as seen in Figure 28 and in the model output, the effect size is much weaker than for the variables discussed earlier.
5.6 Discussion

The results show that both linguistic style and visual appearance have an effect on social meaning. Social meaning is created jointly. Furthermore, it is important to look at the nuances of this result. The interaction between audio clip and image reveals that the weight of the effect of each factor (linguistic style and visual appearance) on social meaning is not a straightforward cognitive process but depends on the stereotype. That is, it depends on whether the information that is provided about the speaker overall places them closer to one or the other social type. Depending on which end of the continuum is invoked, the contributing factors change their strength, potentially contributing very much or relatively little. We can paraphrase the interaction effect like this: If you look *fresa* and use a *naco* linguistic style, you are “downgraded” more strongly in the direction

---

**Figure 28. Main effect of self-reported frequency of others labeling the subject as *fresa***
of naco ($m=3.25$, a difference of 1.66 score points compared to the congruent fresa pair) than you are “upgraded” in the direction of fresa if you look naco and use a fresa linguistic style ($m=4.81$, a difference of .72 less score points compared to the congruent pair naco audio-image). Conversely, in order to belong to the privileged group of fresas, a congruent pairing of speech style and visual appearance is a more essential element than it is for fitting into the stigmatized group of nacos. Note how, overall, the fresa end of the social scale triggers stronger effects. For instance, audio has a stronger effect when the image is fresa than when is naco.

Speaking in terms of congruence, then, the category of fresa exerts a stronger audiovisual congruence effect than the naco category. In order to gain a maximally high overall “fresa” rating, a distinctive fresa linguistic style has to be paired with a high fresa visual appearance, whereas for a speaker with a low fresa visual appearance, even a strong fresa linguistic style makes only a relatively small difference. This also means that it’s more easy to be categorized as naco than as fresa overall. Very high fresa values (say, about 2 or lower) are restricted to highly congruent combinations, whereas very high naco values (say, about 4 or higher) are relatively widely distributed across congruent and incongruent pairings, and thus more easily attainable. This can be interpreted such that the symbolic capital of the fresa linguistic style is to some degree reserved for those who also look like the category; whereas for those who do not, while it is still available and still does them some “good”, these “wannabes” are given less points, no matter how much they produce the linguistic style right.

This congruence effect amounts to a cognitive gatekeeper of privilege. In fact, it can be seen as reflecting the nature of social stereotypes. Although there is a discrepancy
among researchers in cognition as to what exactly a stereotype constitutes, some argue that the concepts of stereotype and category are not completely the same. The difference, some argue, is that stereotypes are less flexible than categories. That is, while not socially contested categories keep upgrading with experience, stereotypes maintain or realign themselves in the interest of structures of power (Hamilton, 1981). Although both, category and stereotype “operate as a way of imposing a sense of order on the social world” (p. 3), stereotypes carry ideological views, making them a one-sided representations in the interest of order, security and dominance of one group. The findings presented here seem to support this view in that the category related to privilege, 
*fresa*, is less flexible and more exclusively defined than the stigmatized one.

Something else to notice is the difference across genders as far as what type of information (Audio vs. Image) has a stronger effect on social categorization overall. While females used both types of information almost equally, males relied more on linguistic style and less on visual appearance than female raters. The male group’s response pattern coincides with recent research on gender categorization. For instance, Watson et al. (2013) show that even though visual and audio stimuli work together, people use vocal information more than visual when categorizing gender. Thus, this research provides evidence that this pattern also applies to social categorization in the presence of a linguistic stereotype that intersects with race and social class, at least for males. Still, more research looking at this difference among genders is needed.

It is also interesting that there is an effect of the gender of the stimulus speaker in interaction with Image (*naco vs. fresa*), such that, when a stimulus speaker is male, subjects tend to rate him as relatively less *naco* than a female speaker with the equivalent
visual appearance (naco vs. fresa). This means that while there is no overall difference in how males and females rate, they do rate male and female speakers differently, based on the speaker’s appearance. Also, if you observe Figure 28, female speakers are rated on a broader scale overall – they surpass males on the naco end. This result also suggests that the extremes of the fresa and naco categories are better defined for female than for male subjects – at least when visually judging speakers. In other words, the categorization of male subjects depending on their visual appearance shows rather fuzzy boundaries and a reduced range – if we assume that midpoint scores, 3-4, somehow represented the non-prototypical fresa or naco –, whereas the categorization for female subjects shows better defined boundaries and a wider range. This implies that the fresa-naco categorization based on appearance is more straightforwardly applied to female than to male speakers. These categories may be seen as more socially relevant for female than for male speakers overall. This goes along with the often cited finding in sociolinguistics that women make greater use of symbolic expression overall than men and are, in reverse, also evaluated more scrupulously in this respect.

Another noteworthy effect is the one of group membership. Since it is rare for Mexicans to call themselves fresas, the demographic form asked the subjects how often others call them fresa. The following correlation emerged: the more often the subjects are perceived as fresas by others, the less fresa the subjects perceive the stimuli. We can interpret this as a similar effect to what Johnston and Kiesling (2008) found within the “same” community, Pittsburgh, PA. While speakers who did not monophthongize /aw/ perceived it as an index of localness, people who produced it did not have that association. In other words, the subjects of the present study who are presumably
members of the group *fresa* perceive other speakers as relatively less *fresa* due to their own proximity to the group of *fresas*.

One of the implications of the results in this research has to do with racial discrimination in Mexico and its relation to language. One of the elements that subjects in the stimulus condition validation phase reported as a basis for rating photos as *naco* was facial-physical features. If we remember that the category *naco* was originally associated with being indigenous and *fresa* with being predominantly of European descent, the results reported here might point to within-group racial discrimination among the Latino population, as it has been reported in research (Chavez et al., 2014; Moreno Figueroa, 2012). The fact that physical appearance affects social categorization at least of the categories *fresas* and *nacos*, tells us that this element is indeed used to differentiate groups within the larger community. This seems to be a slight parallel between the categories of ‘white’ and ‘brown’ in the US and the *fresa vs naco* in Mexico. Therefore, this research can indirectly contribute to the current growing conversation about discrimination in Mexico (Iturriaga, 2011).

Methodologically, the results of this study suggest that there are benefits for the field of sociolinguistics if experimental work is conducted in more ecologically valid contexts. The fact that much of human interaction is face to face, urges the research in perceptual sociolinguistics to implement visual stimuli in the study designs. In the field of social psychology, visual cues, specifically face features, and their impact in impression formation have been widely studied. Zebrowitz and Montepare (2008) argue that:

…ecological theory holds that dynamic and multi-modal stimulus information
should have the strongest impact on perceptions. The qualities that are conveyed by facial structure, be it attractiveness, age, emotion, or familiarity, may also be specified in facial movement as well as in voices, bodies, or gesture (Ambadar, Schooler, & Cohen, 2005; Berry, 1990b; Burnham, 1993; de Gelder & Hadjikhani, 2006; Helfrich, 1979; Juslin & Scherer, 2005; Morrison, Gralewski, & Penton-Voak, 2006). Our perceptual systems have evolved to extract useful information from moving, talking faces that are attached to bodies, and we are likely to learn more about how the face perception system works if we study it in more ecologically valid contexts (11).

Sociolinguists might also learn more about how social perception and linguistic variants work if we study these phenomena in this manner when conducting experiments. Why should studies in language attitudes and social meaning ignore the fact that we integrate visual and audio cues in person perception? Thus, this research hopefully brings attention to the construction of social meaning as an outcome of impression formation where “(we) exploit redundancies between face and voice to increase the reliability of sensory estimates and [...] combine nonredundant, complementary cues to maximize information gathered from the two modalities” (Campanella & Belin, 2007: 535).

Furthermore, the effect of congruence between language and appearance could be explored, particularly in the context of the US where diverse identities are encountered. Since social categorization has important consequences for a variety of interpersonal behaviors, the effect of congruence on this is being researched even in neuroimaging. For instance, a recent study of Stolier and Freeman (2017) addresses how the brain arrives at stable social categorizations when encountered with multiple social cues. They
find that:

“…opponent social categories co-activate in face-processing regions, which compete and may resolve into an eventual stable categorization with the assistance of conflict-monitoring regions. Thus, the findings provide a neural mechanism through which the brain may translate inherently diverse social cues into coherent categorizations of other people”.

Fascinating interdisciplinary studies of this sort could be done with language and visual cues. But even if we stay within the boundaries of sociolinguistics, audiovisual congruence seems to be a potentially very productive topic. The biases reflected in the fresa/naco ratings could be observed in different contexts. For instance, a clear impact of this effect could be seen in education. How do teachers perceive non-white children who speak SAE? How do teachers make sense of faces with Latino features that might have an American English accent in Spanish in a class of heritage learners of Spanish? There seems to be evidence that the identity of Latinos in the US is called into question when they do not speak Spanish but look Latino. For instance, Meadows (2009) presents a study on the relationship between nationalism and language learning in an English language classroom along the Mexico/US border. One of his interviewees said that he knows what language to speak in Arizona based on people’s looks:

If they look Latin (dark hair, eyes, mustache) then he knows to speak Spanish. On the other hand, if they look americano, he speaks in English. […] When my physical appearance does not match with the language I speak then there is definite evidence, from Bernardo’s [the interviewee] point of view, that I am not
in the mexicano category. Thus, semiotic coherence is very important for these categories. When there is dissonance between features, the authenticity or purity of the individual can be called into question (pp. 119-120)

Latinos in the US who do not speak Spanish are constantly questioned by other Latinos and by out-group members about their identity to the point of a “racial imposter syndrome”. In a recent NPR show, listeners shared their stories about feeling a 'Racial Impostor Syndrome':

"But truthfully, I don't feel like I fit with Latinas either. My Spanish is atrocious and I grew up in rural PA. Even my cousin said a few weeks ago, 'Well, you aren't really Spanish, because your dad is white.' Which gutted me, truly. I identify as Latina. I identify with my mother's culture and country as well as American culture. In shops, I'm treated like every other Latina, followed around, then ignored at the counter. I married a white guy and had children who are blonde and blue eyed, and I'm frequently asked if I'm the nanny or babysitter. And white acquaintances often say, 'You are white. You act white.' And I saltily retort, 'Why? Because I'm not doing your lawn, or taking care of your kids? You need to broaden your idea of what Latina means.' "

The questioning of being a “real” American due to this incongruence is evident in the poem by Ruslana Westerlund:

My English is flawless. My speech is accentless, but my skin color is not. No, I do not dare say, “Not all of us, Latinos are in ESL!” Instead inside of me I yell, “NOT ALL OF US LATINOS ARE IN ESL!”
Thus, how do we process social meaning in the midst of the new diversities American culture faces? How do privileged categories play their part? What does it mean to be authentic? This phenomenon of dissonance based on stereotypes is actually discussed within the African American community. They are expected to speak using features of African American Vernacular English (AAVE) so that when they speak SAE they are taken as “acting white”. In a Huffington Post blog, actor Keith Powell says:

All of my black friends have been told at some point or another during their lifetime that they “talk white.” I’ve been told it so many times, I’ve lost count. In some perverse way, though, I believe it’s said as a way to come to an understanding: the person who says it doesn’t know many different types of black people. Black people are generally seen as uneducated thugs.

It can also be the other way around. On a blog entry of The Online Journal on African American English, an entry titled White People Speaking AAE says: “we also find a lot of white people who use features of AAE without really having a tacit knowledge of the grammar and phonology, and as a result are read as faking it in some way […] their authenticity as speakers of AAE almost always comes into question.”

In other words, the present experimental research stresses how efforts of research on raciolinguistics such as Flores and Rosa’s (2015) should continue to look at implicit bias of appearance and language in the US. Again, we automatically activate stereotypes and attitudes that influence the way we interact (Macrae and Bodenhausen, 2000). This means that even people with the best intentions toward diversity can have attitudes and beliefs that negatively affect their feelings and behavior towards others. By understanding
how we process social meaning when linguistic and visual information do not conform to our stereotypes, we are a step ahead in the fight against discrimination.

5.7 Conclusions

This project contributes to the body of research on the social meaning of language variation and its interactions with visual information, as well as the influence of cultural stereotypes. Specifically, this paper adds to sociolinguistic research of Mexican Spanish, an area that needs to be more explored (Martín Butragueño, 2007), by looking at the social categories fresa and naco. Furthermore, the project took a novel perspective in regards to a more interdisciplinary theoretical framework and methodology used. Using a paradigm combining pictures and audio clips, the present research addressed how stereotype congruence between appearance and linguistic styles affects social meaning when encountered with different social cues. The results provide evidence that opponent social categories cued through different channels co-activate in a way that affects the social meaning of a linguistic style. Overall, the research aimed to shed light into how social and linguistic stereotypes impact the impressions we form of others. Although we are warned against stereotypes, we automatically still use that information when we form our impression of others and ultimately influence our behavior. Thus, the results of this research can potentially apply not only to the fresa and naco categories but also to other language related stereotypes; and hopefully, inspire more research on the perception of the intersection of different identities cued by language and appearance.
Chapter 6: Overall Conclusions

This dissertation contributed to the body of research in the effect of language variation on the impression formation of others –i.e., social meaning- and its relation to stereotypes. By taking as a case study the Mexican linguistic fresa style, different aspects of the concept of social meaning were explored. Chapter 2 described the general concept and linguistic features associated with fresas. Then, Chapter 3 and 4 analyzed rising contours in declarative sentences, from a production and a perception perspective, respectively. Finally, Chapter 5 presented an experiment on how visual features affect the social meanings of linguistic styles.

As a whole, the project contributes to sociolinguistic research on Mexican Spanish, an area that has not fully being studied (Martín Butragueño, 2007). Particularly, this dissertation studies an otherwise ignored topic –at least in the Mexican academia-, that of fresas and their linguistic style. Even though this is a very common lay topic among Mexicans, this dissertation still is one of the very few academic pieces examining it. Furthermore, the approach taken was that of the third wave in sociolinguistics. It is true that major pieces of work have been done regarding Mexican Spanish such as the Atlas Lingüístico de México (Lope Blanch, 1990-2000) but they have been mostly conducted under the domain of the first wave. Thus, this research did not only looked at a novel topic in Mexican Spanish sociolinguistics but also accomplished it under the umbrella of this new way to study linguistic variation and its relation to social meanings.

Furthermore, the project takes a novel perspective in regards to a more interdisciplinary theoretical framework and methodology. The fundamental basis of this work comes from usage based phonology (Bybee, 2003; 2010) but now applied to
experimental sociolinguistics. That is, the notion that language and social information are not cognitively separated is seen in this work in regards to the construction of social meaning. Also, the concept of stereotype congruency, which had rather been studied in social psychology, was incorporated here to explore social meaning. Methodologically, this is the first research that has attempted to identify and measure these identities in Mexico –*fresas* and *nacos*.

Finally, but most importantly, the research sheds light on how social and linguistic stereotypes in Mexico affect the impressions we form of others. Particularly, it is worrisome that the stereotypes studied here are part of the common daily –public and private- discourse in Mexico. Due to their usual consumption in humoristic texts, the effects in real life of the (re)production of these social constructs might be going unnoticed.

In regards to future directions, it is evident that there are many questions still unanswered in relation to the category of *fresas* –and *nacos*-. Particularly, how do these two social categories permeate and unfold in the daily lives of Mexicans? It seems that discrimination goes beyond being clearly identified as indigenous and it is rather covertly expressed –although purposely erased- through these categories. Furthermore, this dissertation points to the study of many more linguistic variables that might be associated with *fresa* style, such as vowel lengthening at the end of IPs, spirantization of /b,d,g/ and the use of specific lexical items such as *o sea* ‘I mean’ and *güey* ‘dude’.

Evidently, as already mentioned, the results of this research can potentially not only apply to the *fresa* and *naco* linguistic styles but to other languages and varieties, as
well as to identity studies in general.

Therefore, we can see that by studying the *fresa* style in this dissertation three goals were attained: 1) a concrete idea of what Mexicans associate with the social meaning of *fresa* (linguistic and non-linguistic behaviors, Chapter 2), 2) a comparison of at least one of these behaviors found among folk beliefs regarding *fresa* linguistic style with naturalistic data, as well as in a social perceptual experiment (rising intonation, Chapters 3 and 4) and 3) uncovered how social meanings of linguistic styles are somewhat constrained by appearance, and in this case specifically, how it can intersect with other social constructs such as class and race (Chapter 5).

Thus, we can conclude that the phenomenon of *fresas* (versus the category of *nacos*, particularly) involves more than Mexicans performing the stereotype of a *fresa* saying *o sea ¿noooo?* ‘I mean, riiight?’. It ranges from phonetic minutiae to intersections with other social issues such as classism and even White privilege unfolding in Mexico. This dissertation just began to unpack the intricacy of a topic that so far had been otherwise regarded as a *funny* Mexican cultural element.
References


Blas Arroyo, J. L.. (1996). De nuevo el español y el catalán, juntos y en contraste:
Estudio de actitudes lingüísticas. RLA: Revista de lingüística teórica y aplicada, 34, 49-62.


displaced: Attitudes towards the ‘new’ quotatives in the U.K. *Journal of Sociolinguistics, 10*, 362–381.


Reyes, M. E., Guadarrama, I., & Lopez-Estrada, V. (2009). "Fresas" (Strawberries) and Other Latino Student Groups: The New Student Demographics in South Texas Schools. *International Journal Of Learning, 16*(7), 59-68.


APPENDIXES

a) Sample Assessment Sheet for Rating Pictures and Audio Clips (Validation Process for Stimuli, Chapter 5)

Gracias por participar en este estudio. Recuerde que toda la información será confidencial y anónima. Si tiene alguna pregunta sobre este cuestionario, por favor diríjase a la investigadora. Por favor, conteste las siguientes preguntas antes de comenzar las actividades:

1. Edad: _________
2. Sexo: □ Femenino □ Masculino
3. Ocupación: ______________
4. ¿Tiene usted algún problema auditivo? □ Si □ No
5. ¿Tiene usted algún problema de vista sin tratar? □ Si □ No

Instrucciones
Usted va a calificar en una escala fotografías de personas y audios. La primera sección es exclusivamente de fotografías, la segunda sección son audios solamente. Por favor, primero vea las fotografías, califique cada una y provea la razón por la cual la calificó de esa manera.

Foto #1

<table>
<thead>
<tr>
<th>Muy fresca</th>
<th>Ni fresca ni naca</th>
<th>Muy naca</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¿En qué aspectos se basó para su calificación?
b) Answer Sheet of Matched Guise (Chapter 4)

Gracias por participar en este estudio.
Recuerde que toda la información será confidencial y anónima. Si tiene alguna pregunta sobre esta actividad, por favor diríjase a la investigadora.

Instrucciones
Usted está a punto de escuchar a diferentes hablantes y de indicar el nivel en que usted está de acuerdo con que el/la hablante es un/una fresa.

Por favor, primero lea el contexto de cada audio antes de escuchar el clip, ya que le proveerá de la información necesaria para entenderlo. Después, indique qué tan de acuerdo está con la afirmación de que el/la hablante es fresa. Usted puede oír el audio cuantas veces quiera. Puede dar comentarios de cada audio en la otra hoja de respuestas, pero esto es opcional.

Antes de comenzar, por favor realice una práctica para familiarizarse con la actividad.

***************

PRÁCTICA

<table>
<thead>
<tr>
<th>No. de Audio</th>
<th>La/el hablante del audio es fresa...</th>
<th>Totalmente en</th>
<th>Desacuerdo</th>
<th>Alegre en</th>
<th>desacuerdo</th>
<th>Algo de</th>
<th>acuerdo</th>
<th>Desacuerdo</th>
<th>Totalmente de acuerdo</th>
<th>Sin opinión</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contexto</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Práctica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Usted ha terminado con la práctica. Si tiene alguna duda, por favor diríjase a la investigadora.

Si usted está listo, puede comenzar la actividad.

***************
<table>
<thead>
<tr>
<th>No. de Audio</th>
<th>Contexto</th>
<th>Totalmente en desacuerdo</th>
<th>En desacuerdo</th>
<th>Algo en desacuerdo</th>
<th>De acuerdo</th>
<th>Totalmente de acuerdo</th>
<th>Sin opinión</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Le está contando a su novio sobre cómo no rompió su dieta durante un evento al que asistió.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Le cuenta a su novia cómo se sorprendió de que un grupo de muchachos que recientemente conoció no se parezca a su grupo de amigos frecuentes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ella está platicando con su amigo sobre las diferencias gramaticales del francés y el español.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Él está explicando a una amiga por qué no ha podido hacer un viaje que tenía planeado.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Está comentando con su esposo que le da gusto que recientemente ha habido más bodas en la iglesia a la que asisten.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Le está platicando a su novia sobre un cambio burocrático en una escuela de idiomas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Ella le está contando a la prima de un amigo sobre un programa de intercambio estudiantil.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Él está hablando con la familia de un amigo de una conversación que tuvo con otro amigo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Le está recordando a su novio sobre un envío de cajas que tienen que hacer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Está platicando sobre el amigo de un amigo que fue locutor.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. de Audio</td>
<td>La/el hablante del audio es fres...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contexto</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Totalmente en desacuerdo</strong></td>
<td><strong>En desacuerdo</strong></td>
<td><strong>Algo en desacuerdo</strong></td>
<td><strong>De acuerdo</strong></td>
<td><strong>Totalmente de acuerdo</strong></td>
<td><strong>Sin opinión</strong></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Ella le está platicando a su prima sobre la importancia de decir claramente lo que te molesta.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Un maestro le está platicando a otro sobre un estudiante extranjero que tenía que hacer un examen antes de regresar a su lugar de origen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Ella está platicando con la familia y amigos sobre cómo nunca le cayó bien la novia de un primo suyo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Él está platicando con compañeros de trabajo sobre un bar.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Ella está platicando con su amigo sobre el tipo de vida en diferentes zonas en Guadalajara según un estudio.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Él le está contando a su amiga cómo le costó trabajo hablar otra lengua cuando llegó al país donde se habla.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Ella y su prima están platicando acerca de por qué puede uno no querer contar algo durante terapia psicológica.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Le está contando a su esposa sobre un tip que leyó para dar las medicinas a los niños.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Ella está platicando con una señora sobre una amiga que despidieron del trabajo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Le está comentando a su novia que no entiende cómo logró hacerse amigo en la preparatoria de muchachos que normalmente sólo se juntaban con miembros de su mismo grupo.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Participante ____
Comentarios a audios

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 

***************

¿Reconoció a alguna de las personas en los audios?

☐ No    ☐ Sí, cuál: ____________________________
c) Task 2 (Chapter 4)

Actividad 2

A continuación, va a oír dos audios casi idénticos. Por favor responda las siguientes preguntas:

1. ¿Le parece que la persona tiene una personalidad distinta según el audio?

¿Asocia cualquiera de estos audios con la forma de hablar fresa? Sí____  No____

¿Cuál?  1a. _____  1b. _____  Los dos __________________________

¿Por qué? ________________________________________________

---

d) Task 3 (Chapter 4)

Actividad 3

Por favor mencione las primeras 5 características generales que se le vienen a la mente cuando piensa en alguien fresa:

1._________________________  2._________________________

3._________________________  4._________________________

5._________________________
e) Task 4 (Chapter 4)

Actividad 4.

Por favor indique qué tan de acuerdo está con las siguientes afirmaciones:

<table>
<thead>
<tr>
<th>Los frescos ...</th>
<th>Totalmente de acuerdo</th>
<th>En desacuerdo</th>
<th>Algo de desacuerdo</th>
<th>Algo de acuerdo</th>
<th>De acuerdo</th>
<th>Totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Son amables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son de clase media-alta para arriba</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hablan como la mayoría de los mexicanos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Se visten con ropa de marca</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuidan su imagen física</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son inteligentes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Llevan una forma de vida cara</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son atractivos físicamente</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viajan al extranjero</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hablan inglés</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tienen bajos niveles educativos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son pretenciosos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son de tez clara</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Otras comentarios:
f) Demographic Questionnaire for Participants of Matched Guise (Chapter 4)

# Participante _____

¡Gracias por participar en este estudio!

Por favor tome unos momentos para contestar esta forma. Recuerde que toda la información será confidencial y anónima. Si tiene alguna pregunta sobre este cuestionario, por favor diríjase a la investigadora.

1. Edad: ______
2. Sexo: □ Femenino □ Masculino
3. Ocupación: ___________________
4. Está actualmente viviendo en México: □ Sí □ No
   Si su respuesta fue Sí, en qué estado vive: __________________
   Si su respuesta fue no, de qué estado es usted originario: _________
   Aproximadamente cuánto tiempo vivió en México: ______________
5. Por favor indíque cuál es el nivel educativo más alto que usted ha obtenido:
   □ Primaria    □ Secundaria    □ Preparatoria    □ Técnica
   □ Licenciatura  □ Maestría  □ ABD   □ Doctorado  □ Otro ________
6. ¿Habla inglés? □ Sí □ No
7. ¿Qué tan familiarizado está con el concepto de ser fresa?
   □ Muy familiarizado □ Algo familiarizado □ Muy poco familiarizado □ Pocas veces lo he oído
8. Alguna vez le han llamado fresa:
   □ Nunca □ Alguna vez □ A veces □ Muchas veces

<table>
<thead>
<tr>
<th>Usted...</th>
<th>Totalmente de acuerdo</th>
<th>En desacuerdo</th>
<th>Algo en desacuerdo</th>
<th>Algo de acuerdo</th>
<th>Da de acuerdo</th>
<th>Totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Se considera un/a fresa

Considera tener amigos/familiares cercanos que podrían ser clasificados como fresa

9. ¿Tiene usted algún problema auditivo? □ Sí □ No
g) Answer Sheet Experiment (Chapter 5)

HOJA DE RESPUESTAS

¿En qué se basó para su calificación?

PRÁCTICA

P1. __________________________________________

P2. __________________________________________

P3. __________________________________________

ACTIVIDAD

1. __________________________________________

2. __________________________________________
154

h) Demographic Questionnaire of Participants (Chapter 5)

Gracias por participar en este estudio.
Por favor tome unos momentos para contestar esta forma. Recuerde que toda la información será confidencial y anónima. Si tiene alguna pregunta sobre este cuestionario, por favor diríjase a la investigadora Rebeca Martínez Gómez.

1. Edad: ________  2. Sexo: □ Femenino □ Masculino
3. Ocupación: __________________
4. Estás actualmente viviendo en México: □ Sí □ No
   De qué estado es usted originario: __________________
5. Por favor indique cuál es el nivel educativo más alto que usted ha obtenido:
   □ Primaria  □ Secundaria □ Preparatoria □ Técnica
   □ Licenciatura □ Maestría □ Doctorado □ Otro __________
6. ¿Sabe inglés? □ Sí □ No
7. ¿Qué tan familiarizado está con el concepto de ser fresa?
   □ Muy familiarizado  □ Algo familiarizado  □ Muy poco familiarizado  □ Pocas veces lo he oído
8. Alguna vez le han llamado fresa:
   □ Nunca  □ Alguna vez  □ A veces  □ Muchas veces
9. Indique su nivel de acuerdo:

<table>
<thead>
<tr>
<th>Usted...</th>
<th>Totalmente en desacuerdo</th>
<th>En desacuerdo</th>
<th>Algo en desacuerdo</th>
<th>Algo de acuerdo</th>
<th>De acuerdo</th>
<th>Totalmente de acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Se considera un/a fresa

Considera tener amigos/familiares cercanos que podrían ser clasificados como fresa

10. ¿Qué tan familiarizado está con el concepto de ser naco?
   □ Muy familiarizado  □ Algo familiarizado  □ Muy poco familiarizado  □ Pocas veces lo he oído
11. Alguna vez le han llamado naco/a:
    □ Nunca  □ Alguna vez  □ A veces  □ Muchas veces
12. Indique su nivel de acuerdo:

<table>
<thead>
<tr>
<th>Usted...</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Se considera un/a naco</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Considera tener amigos/familiares cercanos que podrían ser clasificados como nacos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Si tuviera que identificarse con uno de estos grupos, fresa y naco, ¿con cuál sería y por qué?

________________________________________________________________________________________

14. ¿Tiene usted algún problema auditivo?  □ Sí □ No

15. ¿Tiene usted algún problema de vista sin tratar? □ Sí □ No

16. Usted es: □ Destro □ Zurdo
i) Results for query “los fresas”

(Accessed April 2013)

1. Tribus Urbanas: ¡Los Fresas!
2. Fresa (tribu urbana) - La Frikipedia
3. Los llamados “Fresas” | Mi Mundo Libre 半分恶魔
4. Grupo Social "Los Fresas" - BuenasTareas.com
5. Fresa (México) - Inciclopedia, la enciclopedia libre de contenido
6. Tribus Urbanas.: Los Fresas
7. historia de la tribu urbana de los fresas - YouTube
8. Diccionario Fresa
9. Fresa - Wikipedia, the free encyclopedia
10. Cosas que les gusta a los fresas: sentir que el mundo no los merece ...
11. ¿Como son los fresas necesito saber? - Yahoo! México Respuestas
12. Como hablan los fresas!? - Yahoo! México Respuestas
13. Porque mucha gente odia a los fresas? - Yahoo! México Respuestas
14. ¿Que piensan de los Fresas? - Yahoo! México Respuestas
15. Cosas que les gustan a los fresas | Quen Pompó
16. diccionario de los fresas...... - expresionate lo que quieras
17. Los Fresas - Investigaciones - Ana3333
18. tribus urbanas: Fresas
19. Los Fresas: Acordes, Letra y Tabs (Jesús Alvarado)
20. A mi tambien me caen mal los fresas :@!! | Facebook
21. PADRE NUESTRO FRESA Lyrics FRESAS
22. Tribus Urbanas: ORIGEN DE *LOS FRESAS*
23. las fresitas: vocabulario para los fresas, pero tienen que leelo con ...
24. las fresitas: Aquí les dejo algunas frases utilizadas por los fresas:
25. Los fresas también bailan - Videos - SanDiegoRed.Com
26. tribus urbanas los fresas - YouTube
27. subculturas juveniles: FreSa$!
28. En España existen los fresas?. Vidaextra Respuestas
29. que piensan de los fresas y emos
30. Frases Fresas
31. pijos, fresas, chetos - Tribus urbanas
32. 10 cosas que odiamos de......: 10 cosas que odio de los "Fresas"
33. Fresa - Tribu Urbana - Paperblog
34. las culturas urbanas: las fresas una cultura urbana o una forma de ...
35. fRASES K USAN LOS Y LAS FRESAS(OS)/PIJAS ... - Univision Foros
36. Diccionario de Palabras Fresas - Univision Foro / Forum
37. las fresitas: miren cuanta frases dicen las fresas
38. Que me pueden decir sobre los fresas? - Yahoo! México Respuestas
39. SoLo PaRa FreSaS !!! - Diversión y Tonterías - General
40. FRASES TIPICAS DE LOS FRESAS :: []-tDתפִּרְפְּכֵןלעַתא$ ®-[]
41. NIÑAS FRESAS: REGLAS PARA SER UNA NIÑA FRESA
42. computacion: LOS FRESAS Y LOS EMOS
43. k piensan de los fresas? - 100% RBD
44. Para los fresas | Netec
45. TRIBU URBANA- LOS FRESAS - lizzihermosa
46. GRUPO MUSICAL LOS FRESAS LOCOS - Almoloya de Juárez ... - Olx
47. LOS FRESAS [tribu urbana] proyecto de civica y etica - YouTube
48. Que tan fresa eres ?
49. ¿Los Fresas son gente mala y por que? - Yahoo! México Respuestas
50. Frases Celebres De Los Fresas

Results for query “cómo hablan los fresas”

(Accessed April 2013)

1. Como hablan los fresas!? - Yahoo! México Respuestas
2. ¿porque las fresas hablan asi..como: osea, tipo, y como pausado bien raro? Yahoo
3. ¿como hablan las fresas y presumidas hijas de papi y mami 10pts y 5 estrellas?
4. ¿como hablan los fresas?
5. Como hablan las fresa?
6. De qué hablan las chicas fresa en la clase??
7. Naco y Fresa - Episodio 1 : El i-Pos - YouTube
8. Niñas Fresas - YouTube
10. cuando los fresas HABLAN COMO LOS CHUCKS POR BURLA!!!!!
11. Comprueba si eres una persona fresa… no apto para niños…
12. Re: ►Quien es fresa? en serio asi hablan?
13. CHICA FRESA - www.dalealplay.com
14. Por que los "fresas hablan raro?"
j) Transcription of Audios

Transcriptions are separated by intonation units (IUs) and punctuation at the end of each signals the intonation contours as suggested by DuBois et al. (1993):

- A double hyphen (--) indicates a break before completing the projected contour.
- A period (.) indicates a falling contour that cues a final transitional continuity.
- A comma (,) indicates a level or falling contour that cues the speaker is continuing the turn.
- A question mark (?) indicates a rising contour.

Bolded words indicate that they were the ones manipulated in the matched guise.

• Female, Audio #1 in Matched guise, Chapter 4

ah--

oh

tenonces sí,

so yes

o sea,

I mean

no me,

it didn’t

no pues,

no well

no exageré,

I didn’t overreact

pues,

you know

tampoco.

either

la comida estuvo bastante--

the food was fairly
dietética.

light

la que nos dieron.

the one that they gave us

- Male, Audio #2 in Matched guise, Chapter 4; Fresa Audio, Chapter 5

y de banco,

and about banks

y de dinero,

and about money

y dije,

and I said

wow,

wow

o sea,

I mean

primero me llamó la atención que--

the first thing that caught my attention

que en una conversación,

was that in a conversation

todas las últimas de todos mis amigos,

all the more recent ones that my friends had

no hay nada que ver con cosas reales.

there isn't anything to do with real stuff
tiene que hacer uso del pronombre,

(it) has to use the pronoun

y del otro verbo,

and the other verb

pare poder entender-

to be able to understand-

y el complemento,

and the complement

para poder entender a qué te estás refiriendo.

in order to understand what you are talking about

entonces bueno,

so okay

había quedado que en verano,

(I) had agreed that in summer

y se acabaron,

and they ran out

y bueno ya,

and so well

estaba programado que se iban a acabar las medicinas en--

it was anticipated that they were going to run out of medicines

en --

on

en --
on

en esas fechas,
on those days

pero,
but

el viaje que estaba programado se canceló.
the trip that was already programmed was canceled

• Male, Audio #6 in Matched guise, Chapter 4

en el CEPE antes pagaban impuestos y ya no.
in CEPE they used to pay taxes but not anymore

o sea antes dábamos,
I mean, you used to present

no sé si recibía de honorarios,
I don’t know whether a payment receipt

o qué,
or what

pero la cosa es que a mi mamá le pagaban los impuestos.
but the fact of the matter is that they used to pay my mom for her taxes

• Female, Audio #7 in Matched guise, Chapter 4

en algunas partes tienes que ir cinco horas diarias,
in some places you have to be there for five hours a day

a la semana de clases de francés,
per week of French classes

te pagan sueldo,
they pay you a stipend

they p--

they pay you food

alojamiento,

lodging,

and t- on top of that you have time

así como para--

just like to

libre,

free

que puedes hacer lo que tú quieras.

so you can do whatever you want

• Male, Audio #8 in Matched guise, Chapter 4

le conté muchas cosas,

I told him many things

pero yo le dije,

but I told him

o sea lo que--

I mean what

pues,

well
con relación a lo que ustedes me han enseñado,

regarding what you have taught me

lo que he aprendido aquí,

the stuff I have learned here

• Female, Audio #9 in Matched guise, Chapter 4

y hay que hablar--

and let’s call

có--

wi-

bueno,

well

hay que tratar de hablar pronto a las casas.

let’s try to call to the houses soon

mañana si se puede.

tomorrow if possible

• Female, Audio #11 in Matched guise, Chapter 4

yo hago lo mismo,

I do the same

para que no haya problema,

in order to avoid any trouble

pero es que yo lo hago,

but it’s just that I do it

porque según en mi estúpida cabeza,

because according to my stupid head
siempre he pensado,

*I have always thought*

ay,

*oh*

pues dices,

*so you think*

ay,

*oh*

si no me lo hace,

*if he/she doesn’t do it to me*

pues yo tampoco.

*so I won’t either*

- **Male, Audio #12 in Matched guise, Chapter 4; Neutral Audio, Chapter 5**

*de hecho --*

*in fact*

el examen,

*the exam*

no= sabíamos si iba a ser el dos o el seis.

*we didn’t know if it was going to be the second or the sixth*

y entonces lo hicimos el dos,

*so we did it on the second*

y estaba muy feliz,

*and he was very happy*

porque él ya se ib- --
because he was already goi-

el dos fue jueves

the second was Thursday

y el seis ya era martes,

and the sixth was Tuesday already

y el tipo ya se regresaba,

and the guy was about to go back

a Francia.

to France

• Female, Audio #13 in Matched guise, Chapter 4

yo sí desde que llegó,

me since she came

yo sentía que nos lo iba a quitar,

I had a feeling that she was going to take him away from us

y= --

and

cuando me la presentó,

when he introduced her to me

dizque bien buena gente,

supposedly a very a good person

pero a mí no me latía,

but I didn’t feel that way
Female, Audio #15 in Matched guise, Chapter 4

si tienes --

if you have

por ejemplo,

for example

Palan- --

Palan- --

vida de familia,

a family life

[mhm]

la zona= --

the area

de= Libertad,

of Libertad

hacia la Moderna,

towards La Moderna

es como lo más indicado,

is the most convenient

Male, Audio #16 in Matched guise, Chapter 4

este --

uhm

y y --

and and

me costaba mucho trabajo,

it was very hard for me
tenía que hacerlo así casi casi,

*I had to do it that way almost almost*

así como,

*just like*

viendo la regla,

*looking at the rule*

para poder hacer una oración,

*to be able to construct a sentence*

- Female, Audio #17 in Matched guise, Chapter 4; Fresa Audio, Chapter 5

es que también,

*it’s just also that*

sabes que hay algo detrás,

*you know that there is something behind*

no?

*right?*

o sea como= --

*I mean like= --*

ss- --

o sea como esa cosa que te perturba también,

*I mean like that thing that is disturbing to you as well*

genera cosas en ti.

*it causes things on you*
lo de las medicinas.

the thing about the medicines
dice ahí que --

it says there that

lo que m-- --

the thing that m--

lo que mejor funciona para= --

the thing that works better for
giving medicines to children
es siempre enfría rselas.

is always to make them cold
ponerlas en el refri,

to put them in the fridge

yo la verdad?

me the truth?

hasta ahorita?

so far?

no sé por qué me llevo con --

I don’t know why I get along with
digo,

I mean

bueno,
well
por qué conozco?
why do I know
a todos?
everyone
ellos?
of them
si yo no te jugaba futbol.
if I didn’t play soccer
y todo los que no juegan futbol,
and anyone who doesn’t play soccer
no se llevan con todos ellos.
doesn’t get along with all of them

• Female, Fresa Audio, Chapter 5
luego en biología?
then in Biology
me fue muy bien.
I did very well
bueno,
well
ni tanto,
not that much
yo quería un poco más de calificación,
I wanted a grade a bit higher
pero la maestra dijo que no,

*but the teacher said no*

que con eso estaba bien.

*that that was fair*

- **Female, Neutral Audio, Chapter 5**
  
yo entiendo que a mucha gente le sirvió El Secreto,

*I understand that The Secret was useful to many people*

y wo--

*and wo--*

o sea,

*I mean*

es la respuesta del universo,

*it’s the answer of the universe*

la incógnita de qué hacemos aquí,

the mystery to what we’re doing here,

El Secreto.

*The Secret*

- **Female, Neutral Audio, Chapter 5**
  
Ahorita --

*At this moment*

por lo pronto,

*so far*

trabajar.

*working*
estaba estudiando administración de empresas?

*I was studying administration?*

y ya,

*and that’s it*

ya terminé,

*I finished*

- Female, *Naco Audio, Chapter 5*

pues que bueno que= --

*so it was good that*

ha habido bodas este año,

*there have been weddings this year*

porque= --

*because*

ya no había.

*there weren’t anymore*

tenía muchos años que ya no había.

*it’s been many years without them*

- Female, *Naco Audio, Chapter 5*

el otro día llegó con dos colitas,

*the other day she came here wearing two ponytails*

como la chimoltru- --

*like the Chimoltru-*

Chilindrina,

*Chilindrina*
hasta la Paty le dijo,

*even Paty said to her*

y con un copetito así de lado.

*and with a little forelock to the side this way*

se parecía al pájaro loco pero,

*she resembled Woody Woodpecker*

no,

*no*

a Talía,

*Talía*

cuando estaba en la de Marimar.

*when she was in the Marimar one*

- *Male, Neutral Audio, Chapter 5*

pero=,

*but*

ponle que podemos= ir,

*let’s say that we can go*

digo=--

*I mean*

decirte,

*sort of like*

si lo va a dar en cinco días,

*if she is going to give it in five days*

nunca lo=--
she never
hace en= --
does it in
cinco días.
five days

- Male, Naco Audio, Chapter 5
oye,
hey
cuando tienes que hablar,
when you have to speak
no hablas,
you don't
y cuando no,
and when you don't have to
no te para la trompa,
you just can’t stop your mouth
eh?
eh?

- Male, Naco Audio, Chapter 5
de esas de las --
from those of
gillette,
gillette
de esas buenas,
from those good ones

porque,

because

pues no,

well no

al no sentir,

when I didn’t feel

allá al último,

there at the end

nomás así como un manotazo,

just like a hand slap

pues --

well

volteé,

I turned

y pues --

and so