

Phonetic phenomena in New Flamenco. The linguistic stylisation of flamenco over time: a corpus study

Elena Fernández de Molina Ortés
Universidad de Granada

Address for correspondence

Name: Elena Fernández de Molina Ortés
Department or School: Lengua española
Institution: Universidad de Granada
Address: Avenida del profesor Clavera s/n
City, post code: 18010
Country: Granada
Email address: efortes@ugr.es

Abstract

The aim of this article is to check whether the phenomena that were indexicalised in flamenco singing during the early stages of the professionalisation of singing (seseo, fricatisation, aspiration and elision of sounds, rhotacism) have been preserved over the generations. Above all, we want to know whether these phenomena have survived in this period and in the new varieties of the genre, such as flamenco fusion. For this work we elaborated and transcribed two flamenco corpora from the analysis of 44 hours of recordings and a total of 94978 lemmas with phonetic phenomena. The results have shown that, indeed, in flamenco there are indexical phonetic phenomena that have been registered as representative marks of the cante. In fact, the cantaores themselves, regardless of their origin, use the same sounds. However, a decrease in the use of phonetic phenomena of the genre in New Flamenco has been observed, especially in the younger generations.

Keywords: sociostylistics, flamenco, Spanish variation, phonetic indexicalisation, gender, generation

1. Introduction

Music is an art that goes with us throughout our lives. The style of music or the band or singer we choose at a given moment is usually made unconsciously; however, even if we as listeners are not aware of it, artists may use some linguistic strategies to represent their identity: a particular lexicon, phonetic phenomena that may be specific to that genre, pragmatic elements or group-specific expressions. As Bell and Gibson (2011) state, a musician is an actor who can change his "vernacular" way of communicating according to factors such as the audience he addresses, the type of music he sings or, for example, the communicative context in which he finds himself (radio, television, personal videos on YouTube). Like an actor, the musician has several identities and, in their performances, they bricolage (Eckert 2018) the different versions of themselves: those that the audience expects, those that are related to the musical genre, because each type of music has its own characteristics, and also to the singer's own identity: "Performers are, in varying degrees, both innovating originals and bearers of traditions - often simultaneously" (Bell and Gibson 2011: 559).

Until now, work on the linguistic behaviour of singers in musical genres has been carried out mainly in English. However, in Spanish, flamenco has a long tradition, and this may also influence its linguistic characteristics. It is a type of music that has an old origin (professionally born in the last decades of the 19th century) that has been progressively renewed over time. In fact, since the 1960s, two types of flamenco can be established: traditional flamenco, which preserves the characteristics of the original music, and new flamenco or flamenco fusion, which emerged in the middle of the 20th century and which mixes traditional music with other genres such as jazz, blues, rock or, for example, currently, reggaeton. In the research that has been conducted on traditional flamenco (hereafter TF) (Author 2020, 2022a), it has been observed that cantaores¹ have preserved some phonetic phenomena as representative signs of cante² throughout this century and a half. However, it is necessary to check whether these sounds are also preserved in new flamenco (from now on NF) or whether the way of singing has been modified in the new cante trends.

¹ "Cantaor" is a specific figure in flamenco. It is the person who performs the singing. This word would be a synonym for "flamenco singer".

² In flamenco, "cante" can be defined as the musical interpretation of a song.

2. Analysis of the linguistic behaviour of singers and musical groups from a socio-stylistic perspective

The study of socio-stylistic variation in music genres began in the 1980s with Trudgill's (1980, 1983) work on punk rock in the mid-1970s. This type of music had an aggressive character and was mainly aimed at the working class; from a linguistic point of view, the singers used different variants from other musical groups. Trudgill analysed seven British albums and was able to observe that, although American English was most used in this genre, the groups used a hybrid American-British accent. These changes were driven by the British bands of the time as a reaction to the Americanisation of the music and brought about significant changes. This was verified years later by Simpson (1999), who worked on pop-rock in the 1980s. In his study he was able to assert that this hybrid accent used by some 1970s groups had taken hold in British pop music and, in fact, he proposed a delimitation of the most frequently shared American and British traits (USA-5 MODEL). Following the research, Simpson concluded that the changes and assimilation of linguistic features in pop-rock are produced by the social role projected by the musical genre and by how the singer wants to represent his or her identity.

Subsequently, in other studies such as those by Beal (2009) on British groups such as the Arctic Monkeys, or Gibson and Bell (2012), it was found that the groups produced changes in different communicative contexts (concerts, albums, and interviews). They also corroborated that there are indeed agreed trends in music.

Studies on stylistic change in music have found that in music genres there is an agreed tendency that singers, when they use stylistic devices in their songs, do so for a specific purpose: to represent their image and their artistic and social identity. So, although in pop and rock there are established sounds or linguistic structures with American phonetic variants as opposed to other varieties, artists may change their way of speaking with a specific intention, an intention that is not only related to their audience, but also reflects a personal musical project that, undoubtedly, often has positive effects on their artistic image. As Jansen (2022: 17) points out, nowadays "Music genres are just as fluent, mobile, and fragmented as linguistic resources. Music and, in a broader sense, pop culture is an open, seemingly borderless space. Artists can eclectically choose from different genres to create their own sound, always balancing old and new". This allows the musician's identity to be moulded according to the function he wants to project to his audience.

65 Indeed, this has been found in research on the stylistic shifts of hip-hop singers
66 (Armstrong 2004; Edwards and Ash 2004; Samy Alim 2002), who use their African
67 American Vernacular English sounds (AAVE) with variants aimed at a particular
68 audience; and, in American pop in the singer Rihanna (Jansen 2022; Jansen and Westphal
69 2017), who uses Caribbean variants in spoken word moments of her songs. Beyoncé
70 (Maeve Eberhardt 2020), for example, also employs some strategies: she uses African
71 American variants in her songs since the release of *Lemonade* (2016). These changes in
72 well-known artists make populations such as the Caribbean or African American visible
73 and have a great symbolic charge in their songs.

74

75 2.1. The study of socio-stylistic variation in music. A starting point

76

77 We can use two theories which, although different, are related (see Bell 2002; Bell and
78 Gibson 2011; Gibson and Bell, 2012): *audience design* (Bell 1984) and *speaker design*
79 (Coupland 2002, 2007). According to Bell's proposal, a speaker generally changes the
80 way he or she speak according to the person they are addressing. They always consider
81 that, in their discourse, there may be direct receivers, but also indirect receivers. To apply
82 this theory to the study of musical genres, we could affirm that a singer changes their way
83 of speaking to address a specific audience; they use some linguistic features that are
84 previously established in that type of music, and they are aware that, if they adapt to the
85 rules of the genre, they can have a positive reaction in their audience (Bell and Gibson
86 2011). However, Bell's theory can be complemented by Coupland's version of the
87 speaker's function in this context: while a musician must adapt to the audience, the singer
88 is autonomous in choosing from, within their linguistic repertoire, the variants they want
89 to use. Linguistic identity is dynamic and unpredictable and is influenced by multiple
90 external factors that personalise the speaker's discourse, internal factors (purpose of the
91 enunciation, contextual framework) and external factors (audience, subject matter, age,
92 proximity to the listener, etc.) (Bell 2002). For this reason, a singer can create their own
93 style and project their linguistic ideology in their songs, as has been found, for example,
94 in Jansen's study of Rihanna (Jansen 2022; Jansen and Westphal 2017) or Beyoncé
95 (Maeve Eberhardt 2020)³.

³ These perspectives are taken from the second and third waves of sociolinguistics (see in Eckert 2012, 2018), where it is no longer only the social categorisations of linguistic phenomena that matter, but also the analysis of the influence of other cultural and social factors on variation. Indeed, as Bell and Gibson (2011)

96 Furthermore, to study the linguistic behaviour of musical groups, four other fundamental
97 paradigms must be considered: stylisation, register, indexicality, and discursive culture
98 (see classification in Bell and Gibson (2011: 560). By stylisation we mean the linguistic
99 accommodation that takes place in a communicative act; a speaker (or a singer, in this
100 case) chooses from their repertoire variants (phonetic, lexical, pragmatic) that suit the
101 context and their audience. However, both in general communicative acts and in
102 performative acts such as in music, there are certain signs or linguistic forms which are
103 determined by tradition, and which have a significance within that domain; they are
104 indexicalised phenomena. In fact, these phenomena are contained in the "register" that
105 has been engraved in the public mind and are representative of a style of music, a group,
106 or a society (Agha 2003). However, although there are linguistic elements in society that
107 are registered and indexicalised, culture is regenerated and updated because in many cases
108 traditional premises are recontextualised. In fact, it is thanks to this regeneration that, in
109 the 1980s, studies on musical genres were carried out. Trudgill (1980, 1983) found that
110 the phonetic phenomena of pop, generally American, were gradually being modified by
111 British features thanks to a fundamental trigger: The Beatles. British pop was then
112 changing some indexicalised signs and other phonetical phenomena were "registered"
113 within that musical culture (see Jansen 2022).

114

115 2.2.Flamenco: the stylisation of a musical genre

116

117 Flamenco (as we know it today) began in private, in the so-called *bailes del candil* (Díaz
118 Olaya 2012), in the corrales⁴ of the gypsy in Andalusia. However, at the end of the 19th
119 century, from the corrales, some singers began to perform flamenco palos in the so-called
120 “cafés cantantes” and, later, at the beginning of the 20th century, in theatres. Flamenco
121 began to become professionalised: the singers, of Andalusian origin, created stage sets
122 and shows for the public (national and foreign), who found in this musical genre a
123 traditional representation of Spain. Progressively, the interest in this new genre led
124 cantaores to travel from Andalusia all over the country to perform the traditional “palos”
125 (flamenco styles). The success of flamenco at this time, with many followers in Spain,

explain, research on musical genres shifts from the study of the vernacular to work with performance, i.e., with language that is not natural.

⁴ A "corral" is a space in a traditional Spanish house. It is located within the enclosure of the house and is an outdoor space. Generally, the corral houses domestic animals such as hens, chickens, or sheep, for example.

126 promoted interest in the cante, and new cantaores from other areas of Spain appeared who
127 imitated the Andalusian cantaores: the same patterns were used in the interpretations. The
128 cantaores sing about pain, sorrow, and about party, with bulerías or fandangos. They use
129 the same body movements and scenography (the cantaor with the guitar, or the
130 distribution of the flamenco squares) (Cruces Roldán 2004, 2012; Gamboa 2005; Núñez
131 2011; Ros and Ríos Martín 2009) and, according to the latest research, they also use the
132 same phonetic phenomena (for example, seseo, rhotacism, fricatisation of /tʃ/), most of
133 them typical of the southern area (see Author).

134 At the beginning of the 20th century, flamenco evolved rapidly: popularisation
135 and the demands of the public were modifying traditional flamenco. The genre became a
136 symbol of popular culture and began to be used not only in public spaces, but also in the
137 cinema and on the radio. Throughout the century, there was a "logical continuation of the
138 transgressive and transcultural character of flamenco itself" which, although with a
139 traditional character, "was transformed into a modern and urban manifestation of popular
140 art" (Steingress 2005:133).

141 In the 60's, new rhythms arrived in Spain (jazz, blues, rock etc.) and flamenco
142 mixed with them. The result was the creation of "flamenco fusion", a type of music that
143 changed the style of the genre and, gradually, transforms the bases of traditional flamenco
144 up to the present day. In fact, it is the beginning of "flamenco nuevo" (NF)⁵, a new way
145 of interpreting flamenco with significant changes in the type of shows, in the themes of
146 the songs or, for example, in the scenography (see Appendix 1. Differences between
147 Traditional Flamenco and New Flamenco from the classification of Cruces (2008)). For
148 example, in the NF, singers are currently mixing flamenco with recent music genres such
149 as reggaeton or rap.

150 Therefore, in TF we are talking about a traditional genre, with very representative
151 stylistic and cultural characteristics, and they are inherited through the generations. These
152 representative features of the tradition are significantly modified in the NF (changes in
153 the show, in the types of songs, etc.). Will we also find significant changes from the
154 linguistic point of view?

155

156 2.2.1. Phonetic phenomena as indexical features of Traditional Flamenco (TF)

157

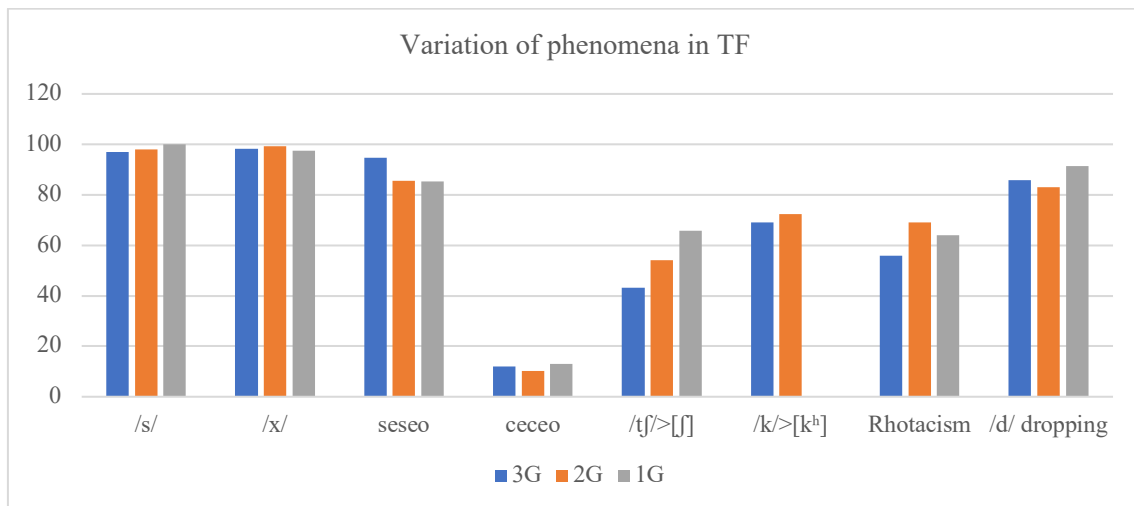
⁵ "New Flamenco"(NF) will be used in this work as a synonym for "Flamenco fusion".

158 As in other research on musical genres, flamenco has been a focus of analysis in last
159 years. In recent works on this musical genre, specifically on TF (Author 2020, 2022b,
160 2022a; Manjón-Cabeza 2014) it has been proven that, since the professionalisation of
161 flamenco (at the end of the 19th century), some sounds have been systematically
162 associated with this genre.

163 In these works, the authors have analysed some phonetic phenomena that have a high
164 frequency. Specifically, the phonetic changes studied tend to be used in southern speech,
165 i.e., in south-central Spain:

- 166 - Lenition of /s/ when in syllabic coda position. Aspiration or elided pronunciation
167 of /s/ in words such as "casas" (“houses”) ['kasa], "escuela" (“schools”)
168 [eh'kwela], los niños (“the children”) [loh'nĩno].
- 169 - Aspiration of the voiceless velar fricative /x/ in initial position as in "jamón"
170 (“ham”) [ha'mõn], and in intervocalic position as in "ojo" (“eye”), pronounced
171 ['oho].
- 172 - Seseo and ceceo. In flamenco, we can find phenomena of neutralisation of the
173 sounds /s/ and /θ/ as [s] (*seseo*) or [θ] (*ceceo*). From this point of view, we consider
174 a speaker to be “*seseante*” when he/she uses /s/ in the phonic contexts of syllabic
175 attack which are graphically represented by a <c> or <z> in Spanish (e.g.
176 [kase'rola] (“pan”) and not [kaθe'rola]); on the contrary, a speaker is “*ceceante*”
177 when he or she selects, also in syllabic attack position, an interdental fricative
178 sound [θ] where in writing an <s> is represented (e.g. [θe'βjja] and not [se'βjja]
179 (“Seville”)).
- 180 - Fricative pronunciation of /tʃ/. In Spanish and Andalusian speech, speakers
181 pronounce the sound alveolar [tʃ], as in "coche" (“car”) ['kotʃe]. However, in
182 some areas of Andalusian, we can find variant [ʃ] ['koʃe]. This sound comes from
183 a process of lenition which occurs when the stress of the phoneme /tʃ/ is fricatised
184 as [ʃ]. The geolinguistic location of this phenomenon is mainly the western part
185 of Andalusia. However, its use is determined not only by its location, but also by
186 extra-linguistic factors such as the generation or level of education of the
187 speakers.
- 188 - Articulatory reinforcement of the voiceless stop sound /k/, which in some
189 pronunciations appears with a reinforcing post-aspirated breath [k^h] in word initial
190 position, when pronounced “quiero” (“I want”) ['kjero] as [k^hjero].

- 191 - Rothacism. This is a phenomenon where there is a neutralisation of liquid sounds
 192 /l/ and /r/ with a predominance of /r/. In these cases, the speaker pronounces
 193 "culpa" ("blame") as ['kurpa] or "alma" ("soul") as ['arma].
 194 - Finally, in Spanish it is also possible to find changes in the intervocalic /d/, which
 195 has an approximant pronunciation [ð]. Then, Spanish speakers pronounce the
 196 word "cansado" ("tired") as [kansaðo]. However, it is possible that the speaker
 197 leaves the dental, which disappears in examples such as [kan'sao]⁶.

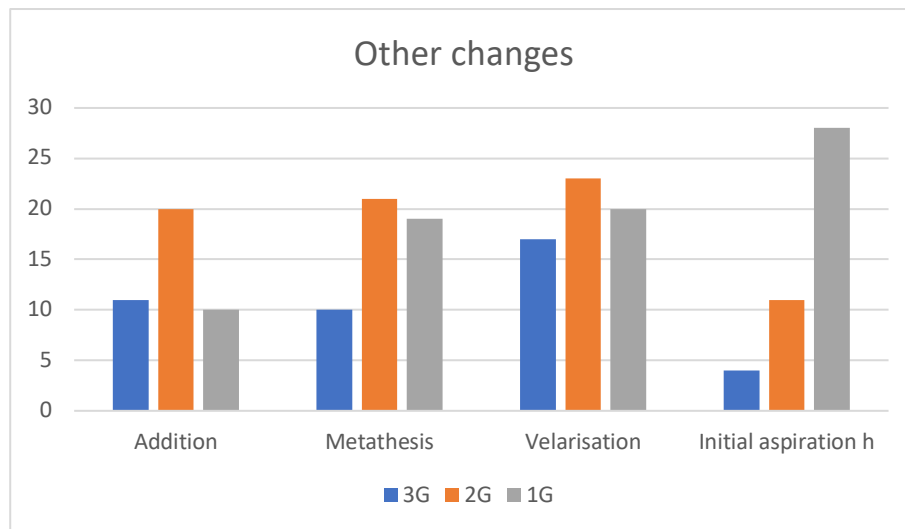


198
 199 **Figure 1.** Data on the use of TF-related variants from data from (Author, 2022a: 62). This figure
 200 shows the percentage of use of traditional flamenco variants according to three generations (3G,
 201 young cantaores; 2G, intermediate cantaores; 1G, traditional cantaores).

202
 203 Following the data of studies on the phonetics of TF (see Figure1), it is possible to affirm
 204 that, throughout time and in all generations, the phenomena of southern origin have been
 205 used systematically in flamenco (the lenition of /s/ and /x/) and the seseo. These marks
 206 are clearly identifiable in cante and they are repeated by all generations of TF. On the
 207 other hand, other phonetic changes are part of flamenco and are indexical signs of cante;
 208 however, their use does not come naturally, and there is not such a representative
 209 frequency. Thus, for example, although the fricative pronunciation of /tj/ was a general
 210 variant in the beginnings (see data in Author, 2020), it is not so frequent in recent
 211 generations; in fact, it is only used by cantaores with an origin related to fricatisation
 212 areas. Other phenomena such as the elision of the intervocalic /d/ in some endings as -
 213 *edo*, *-eda*, *-udo*, or rhotacism, are becoming less and less frequent, especially in the
 214 younger generations. This fact is due, on the one hand, to the fact that they are phenomena

⁶ In a section dedicated to this phenomenon we will explain when the change occurs.

215 related to low sociolects (not well regarded, therefore) and, furthermore, unlike the first
 216 singers, young people do not use these variants naturally⁷. When they do so, they are in
 217 fact imitating their predecessors.
 218



219
 220 **Figure 2.** Data on the use of other phonetic phenomena in the TF from the (Author 2022a). In this
 221 figure we have plotted occurrences (N), not frequencies, because these phenomena do not have a
 222 large presence in the corpus. In this figure we represent three generations (3G, young singers; 2G,
 223 intermediate singers; 1G, traditional singers).

224
 225 Moreover, in flamenco, variants that are not directly related to Andalusian speech can
 226 also be used (Figure 2); they are phonetic changes of Spanish that are associated with low
 227 sociolects. We refer to vowel, consonant or syllabic addition ([are'tiro] for [re'tiro]
 228 (“retired”), metathesis ([proβe] for [’poβre] (“poor”)), the velarisation of /b/ ([’gweno]
 229 for [bweno] (“good”), [aɣwela] for [aβwela] (“grandmother”)) or the aspiration of /h/
 230 from Latin F- ([’humo] and not [’umo] for “smoke”). As can be seen in Figure 2, these
 231 changes appear in the TF, but their use is not universal and, above all, is lower in young
 232 people.

⁷ This has been documented in a number of studies on the Spanish spoken in Andalusia. For example, this pattern is observed in the use of the seseo (Santana 2016a, 2016b, 2017a, 2017b; Hernández-Campoy and Villena-Ponsoda 2009; Villena-Ponsoda 1997, 2001, 2008, 2013; Harjus 2018; Moya Corral and García Wiedemann 1995; Moya Corral and Sosinski 2021; Moya and Sosinski 2015). this behaviour is also confirmed by research on the fricatisation of /tʃ/ (Author in press; García Marcos 1991; Harjus 2018; Melguizo Moreno 2007; Soto Melgar 2019; Moya Corral and García Wiedemann 1995; Villena-Ponsoda 1996, 1997, 2001). Also, in other studies of Spanish in Spain (see Molina and Paredes, 2014; Blanco, 2003; Paredes, 2003) and in southern Spanish (Andalusia, Canary Islands and Extremadura, for example) it is observed that speakers of low sociolects use elided /d/ more frequently than other speakers (see Villena Ponsoda and Moya Corral, 2016; Samper Padilla, 1990, 1996; Samper Padilla and Pérez Martín, 1998; Malaver and Samper Padilla, 2016; Ruiz Domínguez, 2000; Author, 2019).

233 It could be affirmed, therefore, that in the TF of the 20th and 21st century all these
234 variants are indexical signs of cante, because they appear in all generations. The evolution
235 of this musical genre has modified some phenomena, but the phonetic variants have not
236 disappeared in any generation; their use has only been modified.

237 But why have these sounds been maintained in flamenco? Following the most
238 relevant conclusions of the research carried out on the sounds of flamenco (Author 2020,
239 2022b, 2022a), it could be affirmed that it is a phonetic configuration which,
240 unconsciously, was produced in the early stages of the professionalisation of the genre at
241 the end of the 19th century. The new cantaores from other areas of Andalusia imitated the
242 professionals from the southern area and they adapted the most representative phonetic
243 phenomena to make flamenco sound like the original cantaores. As the cantaores came
244 from western Andalusia, differential phenomena such as seseo or the fricatisation of /tʃ/,
245 and also popular ones such as the elision of /d/, rhotacism or vowel and consonant
246 changes, were generalised as distinctive features of flamenco.

247

248 3. Objectives, hypotheses, and research questions

249

250 The aim of this paper is to carry out a contrastive analysis between TF and NF to check
251 whether there have been significant changes in the new trends of the genre. We also want
252 to analyse whether there are similar patterns of variation in the two types of flamenco
253 according to some extra-linguistic variables, such as the origin of the cantaor or the
254 generation to which he or she belongs, for example.

255 In previous sections we have observed that, in flamenco, some phonetic
256 phenomena have been indexicalised as belonging to the genre but, are these variants also
257 used in the NF? And, if they are preserved, do singers use them regardless of their origin
258 (southern or not)? In other words, do they change their way of speaking when they sing?
259 If this were so, it would corroborate our first hypothesis: (H1) there are phonetic
260 phenomena in flamenco that have been indexicalised since the beginning of the
261 professionalisation of flamenco singing, at the end of the 19th century. These phonetic
262 changes are used in the TF and have been inherited also in the new trends, that is to say,
263 in the NF.

264 However, NF is aimed at a different audience, it is much more commercial, and
265 the cante is different; in it, there is a focus on performance and instrumentalisation, and
266 the cantaor is in the second plane. So, is it still necessary to use phonetic phenomena

267 recorded in cante, as in TF? From our point of view, (H2) probably the commercialisation
 268 of the NF has not affected the general uses of southern speech. But, perhaps, this has
 269 influenced the loss of some phenomena such as rhotacism, the aspiration of the h from
 270 the Latin F-, or vowel changes that are not very prestigious, because these variants are
 271 related to low sociolects. (H3) Therefore, there has been a linguistic change in flamenco,
 272 although it has not taken place abruptly: in reality, the public and the cantaores identify
 273 the indexical phonetic phenomena of the genre because they have been registered in the
 274 collective consciousness, but the evolution of flamenco has produced changes in phonetic
 275 production.

276

277 4. Methodology

278

279 4.1. The sample

280

281 To carry out this research, two oral corpora have been collected⁸, corresponding to the
 282 two types of flamenco that have been proposed in this work: the TF and the NF.

283

284 **Table 1.** Sample of singers for the elaboration of the corpus. The table shows two groups by type of
 285 flamenco (traditional flamenco and new flamenco). We have also showed the three generations of
 286 cante with a description of the temporal spaces of each one. We have also indicated the number of
 287 cantaores according to their geographical origin (Andalusian or not Andalusian), and by genre.

	Traditional Flamenco				New Flamenco			
	ORIGIN	MALE	FEMALE	TOTAL	ORIGIN	MALE	FEMALE	TOTAL
3G (1975-2000)	Andalusian	15	15	40	Andalusian	7	7	20
	Not	5	5		Not	3	3	
	Andalusian				Andalusian			
2G (1950-1975)	Andalusian	15	15	40	Andalusian	7	7	20
	Not	5	5		Not	3	3	
	Andalusian				Andalusian			
1G (1876-1950)	Andalusian	30	14	50				
	Not	4	1					
	Andalusian							

288

⁸ We compiled the oral samples for this research from the discographies that the cantaores have on the internet. We have, therefore, a high-quality audio sample. Generally, we downloaded the audio tracks into our computer in .wav format so that, if we needed to analyse the tracks in PRAAT, they would be in a suitable format.

289 In order to elaborate the TF sample, 130 cantaores have been selected and they have been
290 distributed in three age groups (see table 1). These three generations represent three
291 fundamental moments in flamenco: the first (1G) is made up of the traditional cantaores
292 who, at the beginning of the 20th century, constituted flamenco as a professional musical
293 genre. This generation will be the starting point to determine the phenomena that were
294 established in the beginnings of the genre. In the second, the heirs of the first stages have
295 been included: they were professionals who preserved the TF and they also coexisted with
296 the beginnings of flamenco fusion. Finally, the third generation (3G) is made up of the
297 new cantaores. Most of them are currently developing their professional careers.

298 We classify the cantaores by the variable gender (male and female) and by the
299 variable origin (Andalusian and non-Andalusian). In the first generation, the number of
300 Andalusian cantaores is higher (44 out of 50) for a fundamental reason: in the early years
301 there were a greater number of professionals of this origin. There are also more men (34)
302 than women (15). Although there have always been female flamenco singers, and they
303 were very relevant, in this period the professionals were mostly men. In the corpus of the
304 second and third generation, there are 40 cantaores in each group, and the same numbers
305 of men and women have been established.

306 The NF sample (table 1) is made up of 40 cantaores, 20 for each generation.
307 Moreover, as can be seen, only two generation groups have been established. It should be
308 remembered that by NF we refer to the new musical trends that were born with flamenco
309 fusion from the 1960s onwards. For this reason, first generation cantaores cannot be
310 included in the sample. The geographical origin (Andalusian or not-Andalusian) is
311 considered, once again, a fundamental variable, because it will allow us to check whether
312 the cantaores in this sample choose southern phonetic phenomena when they do not
313 belong to this linguistic area.

314 To select the cantaores, we followed a purposive sampling by means of the
315 snowball technique. We began by using the musical references known to the researcher
316 and, subsequently, other professionals were chosen based on the collaborations they had
317 made with other artists.

318

319 4.2. Corpus design

320

321 For the elaboration of the sound corpus, two types of corpora have also been established:
322 the TF corpus and the NF corpus.

323 **Table 2.** Summary of the corpus. Number of transliterated words and number of lemmas with phonetic
 324 phenomena analysed.

	TF		NF	
	Words	Lemmas	Words	Lemmas
3G	23131	7590	21109	13542
2G	10453	7640	18040	12461
1G	14891	9239	-	-
TOTAL	93482	68975	39149	26003

325
 326

327 The first consists of the ortographic transcription of the oral samples of 684 cantes.
 328 We have selected different “palos” to avoid homogeneity and to avoid relating certain
 329 phonetic changes to performance styles. The duration of the cantes varies between 1 and
 330 5 minutes. Thus, in total, more than 34 hours of recordings have been transcribed in the
 331 TF corpus. Specifically, a total of 93482 words have been analysed and 68975 lemmas
 332 have been studied. The corpus with the highest number of items is the second generation
 333 (10453 words and 7670 lemmas). In the younger professionals, 23131 words and 7590
 334 lemmas have been studied. Finally, in the older cantaores, 14891 words and 9239
 335 lemmas.

336 On the other hand, the corpus of the NF has been made using four performances
 337 for each cantaor, which means a total of 160 songs. The length of the melodies is longer
 338 than in the TF, often ranging between three and four minutes. They are catchy songs
 339 where the chorus and instrumentation are more frequent and repetitive. If we take this
 340 time into account, we could say that this corpus is composed of approximately 11.3 hours
 341 of recording. In the data collection 39149 words were transcribed, and 26003 lemmas
 342 were analysed (13542 of the third generation and 12461 of the second generation).

343 Therefore, and according to the data provided, the total corpus has been composed
 344 by the study of more than 44 hours of recordings and by the analysis of 94978 lemmas; it
 345 has been compiled from the interpretations of 170 singers from two different generations
 346 and from two varieties of the genre, TF and NF.

347 Subsequently, after selecting the sample of cantaores, the researcher of this work
 348 listened to and transliterated the cantes and then analysed them (fortunately, some of the
 349 interpretations were already transliterated on the internet, especially the most recent
 350 ones). Subsequently, the researcher listened to all the interpretations again, and labelled

351 the corpus, detailing the phonetic variants that the singers used by their own specific tags⁹.
 352 The detection of the phonetic variants was done with the researcher's judgement and
 353 acoustic perception. However, in order to have consistent results, we have included a
 354 second transcriber. This phonetician corroborated that the phonetic variants detected in
 355 the first analysis were correct. This second transcriber analysed 20% of the NF corpus; as
 356 she had the songs transcribed and labelled, she only had to observe whether the labelling
 357 of each phenomenon corresponded to the sound used by the cantaor¹⁰.

358

359 4.3. Selection of study variables

360

361 To carry out this research, we will select some linguistic variables and some extra-
 362 linguistic variables. On the one hand, we have chosen phonetic phenomena that have a
 363 relevant presence in flamenco (see figure 1 and figure 2). In this work we want to check
 364 if the new generations keep these linguistic features in flamenco singing and, also, if the
 365 style of music (TF or NF) has an effect.

366 **Table 3.** List of phonetic phenomena that we will study to present the features of TF and NF. We have
 367 selected variables reported in the TF (see figures 1 and 2). Some variables are related to southern speech
 368 (left): other phenomena are associated with lower sociolects (right)¹¹.

Phenomena that generally appear in the southern variety of Spain and more specifically in Andalusia	Phenomena that are influenced by social factors such as level of education. They may exist in Andalusia, but are exclusive to the south
<ul style="list-style-type: none"> - Aspiration and elision of /s/ in coda position. - Aspiration of /x/ in initial and intervocalic position - Neutralisation of /θ/ - /s/ (seseo, ceceo) or distinction - Fricatisation of /t/ - Articulatory reinforcement and post-sentence pronunciation of the /st/ group - /d/ dropping¹² 	<ul style="list-style-type: none"> - Neutralisation of /r/ - /l/: rhotacism and lambdacism - Aspiration of the /h/ from the Latin F- - Other phenomena: addition of vowel and consonant sounds (in initial, internal or end-of-word position), metathesis, velarisation

369

⁹ For example, to identify the aspirated pronunciation of /s/ in final position when pronounced between two vowels as in "the eyes" [lo'hoho], I used the tag <svhf> (/s/ before Vowel is pronounced aspirated in Final position). Other phenomena such as seseo or ceceo were easier <seseo>/<ceceo>.

¹⁰ I am grateful for the work of this colleague, who has carried out the analysis without any interest on my part. I include her in the acknowledgements of this research.

¹¹ A description of each phenomenon can be found in section 4.3.

¹² The phenomenon has been included in this section because, although the elision of /d/ can be found in any variety of Spanish, in southern speech it is possible to observe a loss more generally. However, the elision of /d/ is related to middle and lower sociolects and this phonetic variant does not have a good sociolinguistic consideration.

370 As can be seen in table 2, we have established two different categories: variables which
371 have a southern and/or Andalusian usage, and variables that are associated with other
372 factors such as the social status of the informants or level of education of the speakers
373 (“diastratic factor”). In this way, we can distinguish between variables which are properly
374 southern and variables which appear due to other extra-linguistic factors.

375 On the other hand, we also chose extra-linguistic variables that can influence the use
376 of some phonetic phenomena in flamenco.

- 377 - The generation. We use this variable to find out if the different generations
378 preserve the phenomena of flamenco over time.
- 379 - Gender. We observe whether the use of some phonetic variants is different
380 cantaores (male singers) and cantaoras (female singers).
- 381 - Origin. As we saw in section 2 of this work, flamenco has its origins in Andalusia.
382 According to current studies, TF cantaores, regardless of their origin (Andalusian
383 or non-Andalusian), use innovative phonetic phenomena. So, if TF patterns are
384 repeated in NF, we could say that, phonetically, cantaores continue to use
385 indexical phenomena of cante.
- 386 - Zone of use of a phonetic phenomenon. Some phonetic changes occur in a specific
387 linguistic area. For example, fricatisation or seseo are not a general phenomenon
388 throughout Andalusia. These variants are pronounced mainly in the western part
389 of the region. In the eastern area they are not very systematic (see sections 5.1.2
390 and 5.1.3). With this variable we will check whether cantaores choose southern
391 variants even though they do not belong to the pronunciation zone.

392

393 5. Analysis and results

394

395 In this section we will present a description of the phonetic phenomena of flamenco that
396 we have used for our analysis. Subsequently, we will check whether the cante has evolved
397 over time. We will use two blocks of analysis: A) the study of the phenomena that are
398 common in the southern part of Spain and B) other phenomena. In order to test whether
399 some sociolinguistic variables influence the use of phonetic variants (see list of variables
400 in section 4.3.), we use an analysis of means comparison (ANOVA)¹³.

¹³ We performed the ANOVA test with SPSS (v.28). We included the set of pronunciations of each sound as the main study variable or factor. The variables with an influence on pronunciations are generally extra-linguistic (gender, generation, origin, and zone - see section 4.3). In some cases, such as /d/, we have also

401
 402
 403
 404
 405

Table 4. Results of the one-factor ANOVA test. This table presents the results of statistical significance of each phenomenon with respect to the linguistic variables (the ending, for example, in the intervocalic /d/) and extra-linguistic variables (gender, generation, origin and zone in some phenomena) which we have used in the analysis of this corpus.

Phenomena	Variable	Sum of squares	gl	Media	F	Sig.
/s/ pronuntiation	Gender	13.383	2	6.691	27.077	<.001
	Generation	85.329	2	42.665	190.540	<.001
	Origin	80.688	2	40.344	180.227	<.001
/x/ pronuntiation	Gender	1.133	2	.566	2.287	.103
	Generation	.032	2	.016	.065	.937
	Origin	4.558	2	2.279	9.763	<.001
Seseo	Gender	.290	1	.290	1.195	.275
	Generation	2.775	1	2.775	11.688	<.001
	Origin	3.443	1	3.443	15.027	<.001
/tʃ/ pronuntiation	Gender	14.720	1	14.720	73.430	<.001
	Generation	1.968	1	1.968	8.028	.005
	Origin	4.410	1	4.410	21.279	<.001
	Zone	24.748	1	24.748	47.051	<.001
Rothacism	Gender	34.181	1	34.181	161.878	<.001
	Generation	.396	1	.396	1.595	.207
	Origin	1.091	1	1.091	4.402	.036
/d/ Ended	Gender	5.260	1	5.260	21.572	<.001
	Generation	.891	1	.891	3.643	.057
	Ended	142.767	1	142.767	19.588	<.001

406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418

As can be seen in table 4, the phonetic phenomena that we analyse in the corpus are influenced by the variables (sociolinguistic and linguistic) that we include in this analysis. On the one hand, the pronunciation of the implosive /s/ is influenced, first, by generation (F=190.540 Sig. <0.001) and the origin of the singer (F=180.227Sig. <0.001). Gender influences the variability of /s/ but with less weight (F=27.077 Sig. <0.001). Origin is also the only variable that influences the variability of /x/ (F=9.763 Sig. <0.001); later we will check whether it is Andalusian or non-Andalusian singers who make changes in pronunciation. On the other hand, it is interesting to check which are the factors that influence the seseo and the pronunciation of /tʃ/. In the first phenomenon, the variable origin is definitive (F=15.027 Sig. <0.001) and generation, although less influential, also has a significant relationship (F=11.688 Sig. <0.001). On the other hand, the choice of

included the word ending. We will consider that there is a statistically significant difference between the groups when the significance (Sig. in the table) is <0.05. We will also use the result of the F-statistic to check which variables have more influence on the choice of sounds.

419 variants of /tʃ/ is influenced by the gender of the singers ($F=73.430$ Sig. <0.001), so we
 420 assume that the pronunciation [ʃ] will be used by one of the two types of singers: either
 421 men or women. Moreover, the variable area is also crucial ($F=47.051$ Sig. <0.001), an
 422 interesting result because, as indicated above, fricatisation is associated with some zones
 423 of Andalusia (see section 5.1.3.). If the singers who use [ʃ] only come from zones of
 424 fricatisation, we could say that this phenomenon is not considered, at present, as an
 425 indexical feature of cante. Finally, the presence of rhotacism is also influenced by the
 426 gender of the performer ($F=161.878$ Sig. <0.001). In our analyses we will observe
 427 whether there are linguistic patterns according to the gender of the cantaores. Likewise,
 428 the origin also shows statistical significance ($F=4.402$ Sig. <0.036), although it is not as
 429 representative as in the previous results. Finally, in the comparison of means of the
 430 pronunciation of intervocalic /d/ we observe that, once again, gender is a statistically
 431 significant variable and, moreover, it has an important weight in the differences of use
 432 ($F=21.572$ Sig. <0.001) and a linguistic variable, the ending, is also a fundamental factor
 433 in explaining the choice of the singers ($F=19.588$ Sig. <0.001).

434 In summary, therefore, these results suggest that the pronunciation of some sounds in
 435 flamenco is influenced by sociolinguistic factors associated with the singers. In the
 436 following sections we will analyse more exhaustively how these results are distributed.

437

438 5.1.Southern phenomena

439

440 As already noted in previous works (see Author, 2022a) and as can be seen in Figure 1
 441 and Table 5, the southern variants of /s/ and /x/ (aspiration and elision) are frequent in the
 442 TF; the pronunciation of [s] is sporadic. Seseo is also very frequent in the third (73.4%)
 443 and second generation (75.2%), which corroborates the statements we made at the
 444 beginning of this study (see section 2.2.1). However, the fricative pronunciation of /tʃ/ is
 445 used by TF singers but is not as systematic.

446

447 **Table 5.** Frequency of pronunciations of southern sounds in the corpus. We present the results of the
 448 phonetic variants of the sounds in the TF and NF. In addition, we also include the frequencies of
 449 occurrence in 3G and 2G.

Phenomena	TRADITIONAL FLAMENCO (TF)			NEW FLAMENCO (NF)			
	Variants	3G	2G	Phenomena	Variants	3G	2G
/s/	[s]	98/2.8%	88/2.2%	/s/	[s]	205/7.8%	539/29%

	[h]	2228/63.8%	2663/65.2%		[h]	1676/64.1%	929/50%
	[ø]	1160/33.3%	1330/32.6%		[ø]	734/28.1%	390/21%
/x/	[x]	11/1.8%	5/0.8%	/x/	[x]	82/25.1%	60/24.6%
	[h]	603/97.4%	627/98.3%		[h]	243/74.3%	183/75%
Neutralisation /θs/: seseo (N=738/1147)	[θ-s]	542/73.4%	863/75.2%	Neutralisation /θs/: seseo (N=644/426)	[θ-s]	480/74.5%	355/83.3%
/tʃ/	[tʃ]	74/56.9%	132/45.8%	/tʃ/	[tʃ]	90/58.1%	110/73.3%
	[ʃ]	56/43.1%	156/54.2%		[ʃ]	65/41.9%	40/26.7%
/d/	[d]	119/14.2%	143/16.9%	/d/	[d]	374/64.3%	305/70%
	[ø]	717/85.8%	705/83.1%		[ø]	208/35%	131/30%
Rhotacism	[l]- [l]	328/44%	286/30.8%	Rhotacism	[l]- [l]	333/70.4%	265/66.4%
	[l]- [r]	417/56%	643/69.2%		[l]- [r]	140/29.6%	134/33.6%

450

451

452 These phenomena are therefore general in TF, but are the same variants used in NF?

453 Following the results in table 5, relevant changes are noticeable.

454

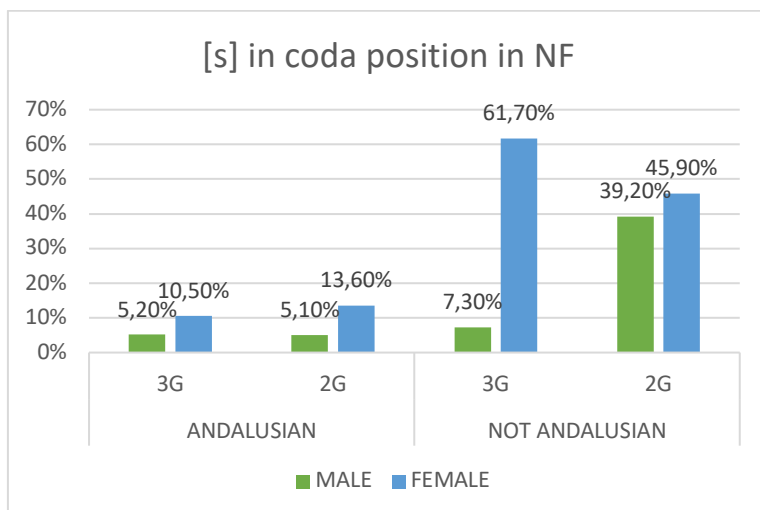
455 5.1.1. Pronunciation of /s/ and /x/

456

457 On the one hand, the southern pronunciation of the fricatives /s/ and /x/ in flamenco is no

458 longer constant: there is a higher frequency of conservation of /s/, especially in the second

459 generation (29%)¹⁴.



460

¹⁴ Perhaps these variations could be explained by the position of /s/. In southern speeches, due to processes of resyllabification, /s/ can be preserved when pronounced in the final position before the vowel as in [lo'siho] ("los hijos"). This situation would explain this change. This is the tendency that has been observed in TF. However, in NF, /s/ is also retained in preconsonantal (136/8%) and, more importantly, prepausal (195/16%) position.

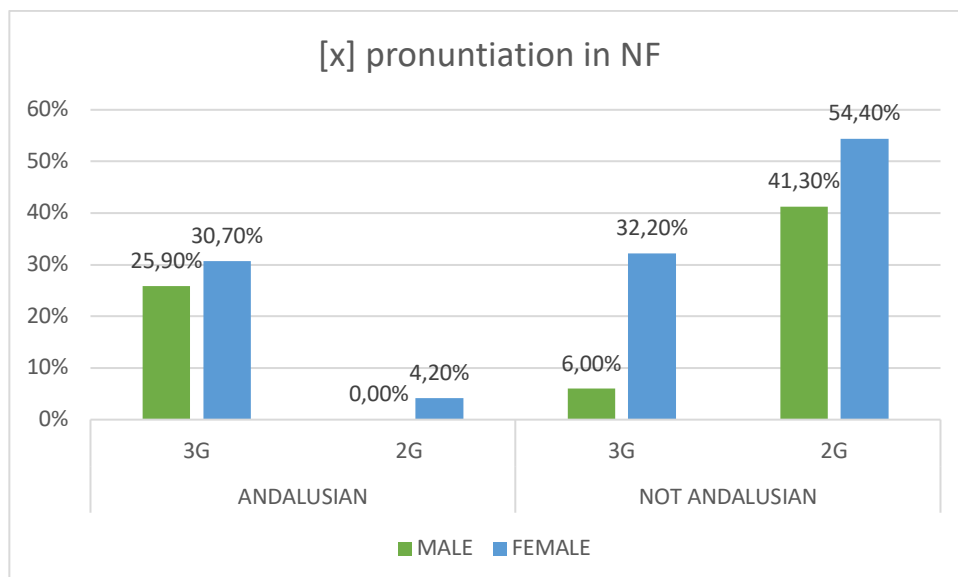
461 **Figure 3.** Pronunciation of [s] in coda position in NF. We have presented in this figure the pronunciation
 462 of the variant [s] (this variant is not general in cante). We have used the variables gender, generation, and
 463 origin of the singers because they were statistically significant in the ANOVA test (see table 4).

464

465 As can be seen in Figure 3, the generation variable is fundamental in explaining the use
 466 of the variant [s] in the NF. However, origin and gender also allow us to check where the
 467 change occurs: in fact, it is the non-Andalusian singers who retain the [s] (it should be
 468 noted that this is their original variant)¹⁵. In the second generation, cantaores and
 469 cantaoras use it with a similar frequency (39.20% and 45.90%). However, the results of
 470 the third generation are particularly interesting: young non-Andalusian female cantaoras
 471 prefer to keep the [s]; they therefore avoid articulatory lenition, which is an indexical sign
 472 of cante.

473 On the other hand, cantaores use the velar fricative [x] in in both generations
 474 (25.1%/24.6%), an innovative variant, undoubtedly, in flamenco. These data reflect the
 475 fact that singers who do not come directly from Andalusia sometimes maintain their own
 476 traits in their songs, but also suggest that this type of flamenco no longer "demands"
 477 certain phonetic phenomena to be sung. However, in the TF the singers, regardless of
 478 their origin, frequently retained the southern variants (aspiration or elision).

479 Following ANOVA results (see table 4), we find that the origin of the singers
 480 influences the choice of the variant [x]:



481

¹⁵ This trend is observed in the chi-square analyses, because the results on the Andalusian variable are not significant (χ^2 : 2. 979 (2) Sig. 0.226), but in the non-Andalusian variable there is statistical significance (χ^2 : 294.539 (2) <0.001).

482 **Figure 4.** We have presented in this figure the pronunciation of the variant [x] in NF (this variant is not
483 general in cante). We have selected the variables gender, generation, and origin of the singers to make a
484 comparison with the data from [s]. In the ANOVA analysis the variable that influences the pronunciation
485 of [x] is the origin (see table 4)
486 in NF¹⁶.

487

488 As shown in figure 3, in the second generation, origin is a fundamental variable in
489 explaining the fricative pronunciation [x]. The first flamenco fusion singers from urban
490 areas such as Madrid, Barcelona or Valencia were distanced from the tradition and they
491 kept their own variant, the [x], both men (41.30%) and women (54.40%); however,
492 Andalusians keep the southern sounds. On the other hand, young people choose the
493 fricative regardless of their origin: Andalusian singers pronounce [x] with a high
494 frequency, both men (25.90%) and women (30.70%), which means a total break with the
495 tradition of flamenco and with its vernacular sounds. In these cases, the phonological
496 system of cantaores is modified to resemble another variety.

497 There is, therefore, a change of tendency in the choice of general sounds in the TF,
498 especially in speakers who do not have an Andalusian origin. In these cases, then, we can
499 affirm that in the NF the singers modify some of the indexical signs of the cante and
500 conserve their own phonetic variants.

501

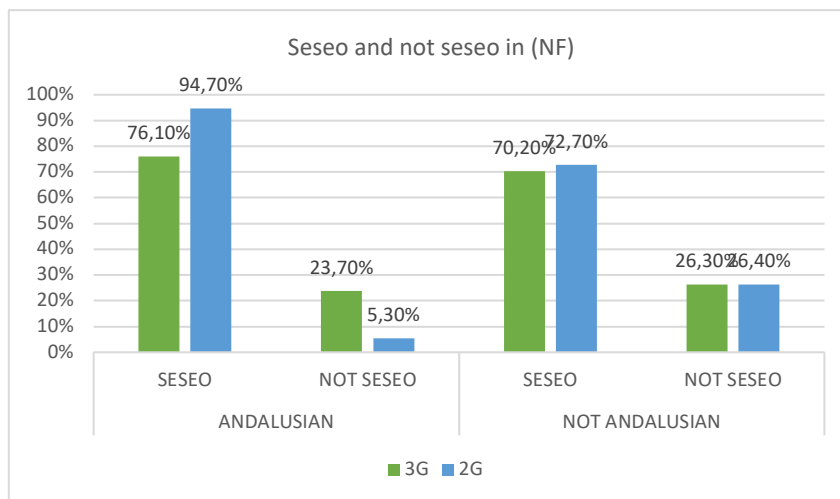
502 5.1.2. Neutralisation of /θ/ and /s/: use of the seseo

503

504 On the other hand, in the use of seseo, the TF patterns continue: table 5 shows that
505 in the NF, neutralisation is frequently used in the third (74.5%)¹⁷ and in the second
506 generation (83.3%). To be more precise, the variable origin of the cantaores allows us to
507 confirm that seseo is an indexical feature of cante: Andalusian and non-Andalusian
508 cantaores retain the phenomenon as representative of the flamenco style in more than
509 70% of the results (see Figure 5).

¹⁶ The results of the interrelationship of linguistic and extra-linguistic variants were statistically significant in the second-generation male combinations (χ^2 : 28.192 (1) <.001) and second-generation females (χ^2 : 41.094 (1) <.001).

¹⁷ Young people (3G) in these cases alternate the seseo with the distinction of /θs/ and with the ceceo (see Author 2022b, 2022a).



510

511 **Figure 5.** Neutralisation of /θ/ and /s/ in the NF according to generation and origin of the
 512 singers. We have selected these variables because they were statistically significant in the
 513 ANOVA test (see table 4).

514

515 In fact, the choice of this neutralisation by non-Andalusian cantaores corroborates the
 516 validity of the phenomenon in the NF, given that it is not directly related to their linguistic
 517 variety. Specifically, a more exhaustive analysis of the corpus shows that the singers who
 518 use the distinction between /θ/ and /s/ do not come from seseo zones (except María José
 519 Llergo); most of them are from distinguishing areas (Los Chunguitos, Martirio, La Negra,
 520 Kiko Veneno) or from ceceo areas (Juanito Macandé, Mártires del Compás, Los
 521 Rebujitos), who prefer to use a non-divergent variant¹⁸.

522 Therefore, and as we observed in previous analyses with the pronunciation of /-s/
 523 and /x/, seseo is a phenomenon specific to flamenco, and is used in both traditional and
 524 new cante. However, the musical changes of the genre in flamenco-fusion allow for
 525 variations, including the use of the distinction in some cases without infringing on the
 526 style of the cante.

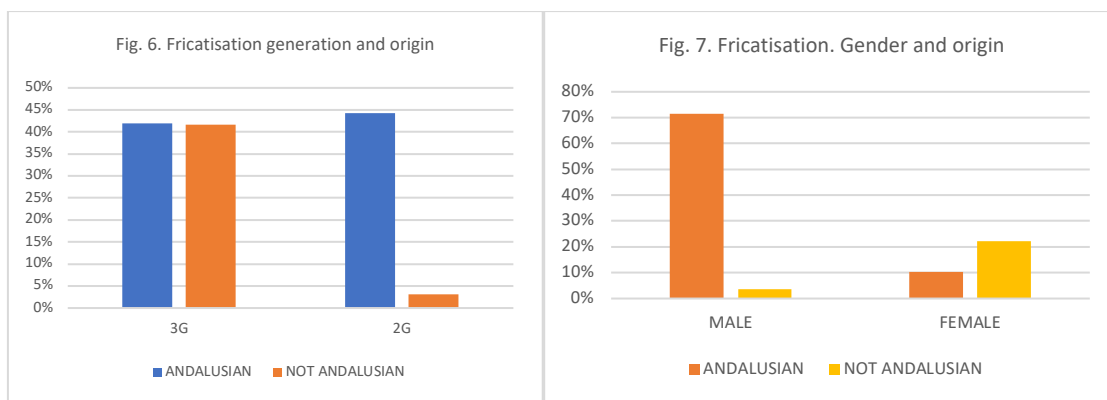
527

528 5.1.3. Pronunciation of /tʃ/

529

¹⁸ The classification of seseo zones has currently been made according to sociolinguistic studies of the last decades (see table Appendix 2). Specifically, research on the pronunciation of /s/ and /θ/ in Sevilla (Santana 2016a, 2016b, 2017a, 2017b), Málaga (Hernández-Campoy and Villena-Ponsoda 2009; Villena-Ponsoda 1997, 2001, 2008, 2013), Jerez de la Frontera (Harjus 2018), Granada (Moya Corral and García Wiedemann 1995; Moya Corral and Sosinski 2021; Moya and Sosinski 2015).

530 The fricative pronunciation of /tʃ/ is associated with the western part of Andalusia, and is
 531 frequent in areas of Cádiz, La Línea de la Concepción, Jerez, Algeciras, Utrera, and some
 532 areas of Granada and Málaga (see Author in press; García Marcos 1991; Harjus 2018;
 533 Melguizo Moreno 2007; Soto Melgar 2019; Moya Corral and García Wiedemann 1995;
 534 Villena-Ponsoda 1996, 1997, 2001). As we have seen in previous sections, the
 535 fricatisation of /tʃ/ was a stylistic variant in TF, also exported by Andalusian singers in
 536 the early periods. However, although it is still present in TF and NF, its use does not enjoy
 537 the same frequency as in the traditional flamenco of the early periods¹⁹.
 538



539
 540
 541
 542
 543
 544
 545

Figure 6 (left). In this figure we present the use of the fricative variant [ʃ] considering the extralinguistic variables generation and origin. **Figure 7** (right). In this figure we present the use of the fricative variant [ʃ] considering the extralinguistic variables gender and origin.

546 As in other phenomena, the interaction of origin and gender is fundamental in explaining
 547 the use of [ʃ] in the NF. On the one hand, the interrelation of these variables allows us to
 548 confirm that the fricative is used, above all, by Andalusian singers of the third (42%) and
 549 second generation (44.20%) (Figure 6). Moreover, as we have already seen on other
 550 occasions, young non-Andalusians also tend to use non-vernacular phenomena in their
 551 interpretations (41.70%). On the other hand, the second generation do not use sounds
 552 typical of flamenco and, in fact, only use the fricative in 3.10% of cases²⁰. However,

¹⁹ The reader can check the difference between the affricate pronunciation /tʃ/ and the fricative variant [ʃ] of cantaores in our oral corpus in the spectrograms included in appendix 4 (illustrations 4 and 5).

²⁰ In the analyses, it has been observed that the difference in young people is not statistically significant (0.564), but it is significant in the 2G, given that Andalusians are the ones who use fricatisation (χ^2 : 42.181 (1) <0.001).

553 fricatisation seems to be a phenomenon retained by Andalusian men (71.60%). It is also
554 interesting to note that there are non-Andalusian women (22.20%) who keep the
555 phenomenon²¹, perhaps as an imitation of the variants typical of TF.

556 We have also evaluated the influence of the variable "zone" on the choice of the fricative
557 variant [ʃ]. In our results we have observed that fricatisation occurs mainly when
558 Andalusian singers are from fricatisation areas²². More specifically, this phenomenon is
559 observed in male singers (75.4%), as we have described above; and, in females, there is
560 no example of the fricative.

561 Therefore, this phenomenon is evidence of the change of the FT and the FN: there are
562 singers who choose the [ʃ] in their interpretations. But they do this because it is a variant
563 associated with their geographical area, not because it continues to be a phenomenon of
564 cante today.

565

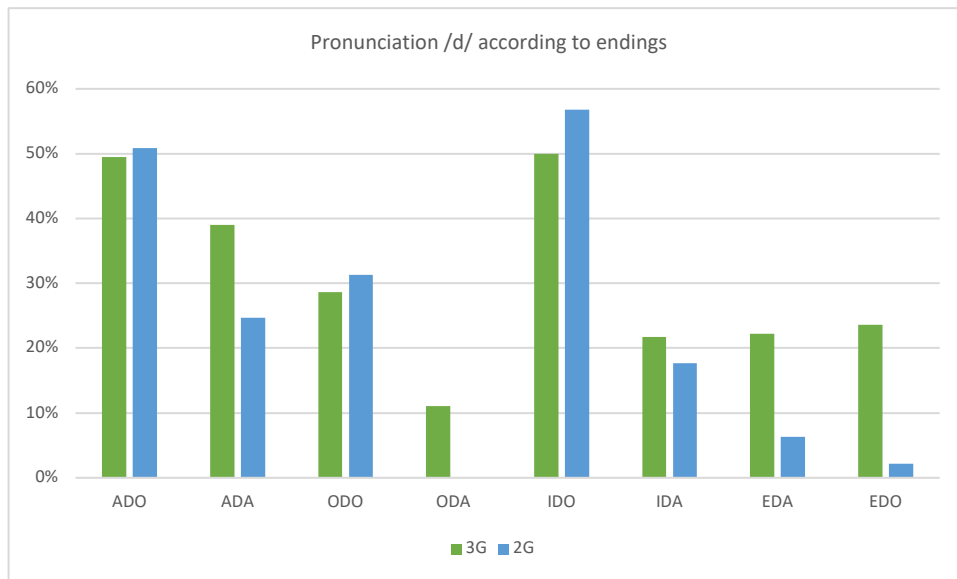
566 5.1.3. Intervocalic /d/ changes

567

568 To conclude this section, the data on the pronunciation of /d/ in intervocalic position will
569 be presented. The data on the phenomenon in the TF reveal that the elision of /d/ is
570 frequent in the third (85.8%) and second generation (83.1%) (see Figure 1 and table 5).
571 However, in the NF, a significant change occurs again: in cantaores of the third (64.3%)
572 and second generation (70%), /d/ is frequently retained.

²¹ In this case, the inter-relationship between men (χ^2 : 31.636 (1) <0.001) and females (χ^2 : 4.384 (1) 0.031) with origin is statistically significant.

²² In the analyses, we have found a significant result only in the relationship of the pronunciation of [ʃ] with areas of fricatisation (χ^2 : 28.656 (1) Sig. <0.001); the chi-square test is not significant in singers from areas where speakers preserve the difference between /tʃ/ and /f/ (χ^2 : 1.392 (1) Sig. <0.172).



573

574 **Figure 8.** Pronunciation /d/ according to endings and generation in NF. We have
 575 presented the conservation of the intervocalic [d], in order to demonstrate the linguistic
 576 change of TF (where elision was the general phenomenon) with respect to NF. We
 577 include here the most frequently used endings in Spanish.

578

579 In contrast to the data of previous flamenco study (Author 2022), the elision of /d/ in the
 580 NF is restricted to certain endings, especially those where the deletion has a high and
 581 medium valuation such as *-ado*, *-ada* and *-odo* (see Figure 8). In fact, and according to
 582 the NF corpus (see Figure 8), in these new interpretations it is no longer so common to
 583 find pronunciations such as [ẽmferme'a] ("enfermedad" – "illness"), ['pweo] ("puedo" -
 584 "I can") or ['toa] ("toda" -"all"-), words which are undoubtedly reminiscent of the TF. In
 585 fact, this is a logical change if we consider how the NF has developed until now: singers
 586 frequently use southern variants, but only the non-differential ones, such as the aspiration
 587 of /s/ and /x/. They choose the seseo, which has a positive consideration in the variety,
 588 but other variants, in this case differential ones, such as the lisp, the fricatisation, or the
 589 loss of /d/ in certain contexts, are not used, probably because they carry with them a
 590 diastratic mark that does not agree with the new trends of the flamenco.

591 According to the results of the ANOVA test, the gender of the performers is a factor that
 592 also explains who omits the intervocalic /d/ in the cantes. According to our results, men
 593 (73%) retain /d/ more frequently than women (59.4%). We have found that men conserve
 594 /d/ more systematically in endings such as *-ado* (59.8%/40.4%), *-ada* (89.5%/45%) and *-*
 595 *odo* (81%/56.3%). However, the cantaoras retain this dental sound in other endings where
 596 the elision of /d/ has less linguistic prestige. Thus, for example, they pronounce /d/ in

597 endings such as *-ido* (56.3%), *-ida* (85.5%), *-eda* (93.8%), and men in these contexts use
598 the dental sound less frequently (*-ido*: 43.6%; *-ida*: 76.3%; *-eda*: 77.8%).

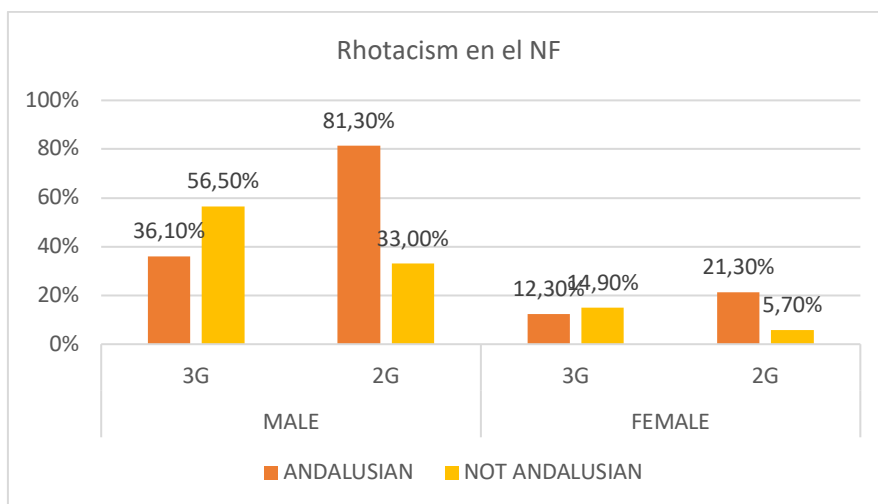
599

600 5.1.5. Neutralisation of /r/ and /l/: rhotacism

601

602 According to the general results compiled, it can be observed that the phenomenon is
603 present in flamenco, but rhotacism is a more frequent variant in TF (64.5%) than in NF
604 (31.4%). However, in TF it is a phenomenon used by women and by third generation
605 cantaores. Therefore, and based on these data, we could affirm that neutralisation is a
606 characteristic feature of the TF but that it is used less and less systematically in the
607 younger generations (see Author 2020, 2022a).

608



609

610 **Figure 9.** In this figure we present the frequency of use of rhotacism in the NF. We
611 consider the variables gender and origin to explain the most representative results.

612

613 In the NF (Figure 9), rhotacism is promoted by male groups; specifically, young non-
614 Andalusians (56.50%) and second-generation Andalusian men (81.30%) are more
615 inclined to choose rhotacism in our corpus.

616

617 These data, therefore, differ from those presented on neutralisation in the TF,
618 where it was found that women used this variant as representative of cante. It seems that
619 there is a group of cantaores, men and Andalusians of the second generation in the NF,
620 who still preserve the phenomena of TF. It is a sociolinguistic profile in which one can
notice the choice, for example, of fricatisation or neutralisation, features which are

621 gradually disappearing in the new trends of the genre, but which are still preserved by
622 these groups.

623

624 5.2. Other phenomena

625

626 In this section we will analyse the articulatory reinforcements of the voiced velar
627 voiceless sound /k/, which in some southern areas is pronounced post-aspirated as in
628 ['k^hjero]; we will also study the variants of the group /st/, which is pronounced as an
629 affricate [hts]. This is a recently attested change, and this pronunciation has a strong
630 presence in some areas of Andalusia (see Vida Castro 2015, 2016). In addition, we will
631 check a phenomenon that has been localised in the corpus of the NF, the
632 labiodentalization of the sound /b/; its generalisation would be a new variant in the NF,
633 not heard in other generations, nor in the TF.

634

635 5.2.1. Reinforcement of /k/

636

637 In the analysis of the TF, we were able to verify that, although the reinforcement of /k/
638 with a post-aspiration was not systematic in flamenco, cantaores used these variants; in
639 fact, we find these sounds in all three generations of cante. However, it is also true that
640 the frequency of use was higher in traditional cantaores, and only in this group were there
641 examples of cantaores who retained the post-aspiration even though they were not
642 Andalusian.

643 In our corpus, in order to corroborate the post-aspirated pronunciation of /k/, we have
644 analysed the VOT (Voice Onset Time) in 3 cantaores: José Mercé (Illustration 1,
645 Appendix 4), Camarón de la Isla (Illustration 2, Appendix 4) and El Capullo de Jerez
646 (Illustration 3, Appendix 4). In the spectrograms of these illustrations we can check the
647 occlusion bar and also the beginning of the sonority, generally when the vowel /e/ or the
648 following diphthong /je/ begins. In addition, however, in the acoustic analysis we have
649 found that the duration of the segment /k/ in José Mercé, who pronounces a voiceless
650 velar stop, is 44 ms. and 23 ms. The pronunciation of the velar in Camarón de la Isla (140
651 ms.) and El Capullo de Jerez (168 ms.) is considerably different, because these singers
652 use the post-aspirated variant [x^h]²³.

²³ These results of José Mercé are in the range of the duration of /k/ in other studies of Spanish. For example, Asensi et al. (1997) report a mean duration of 35.4ms. Martínez Belda and Padilla (2021) present an average

653 This tendency is again observed in the corpus of the NF: the phenomenon is very
 654 restricted (of the 97 possible occurrences, only 19 cases of the sound have been collected).
 655 It has been heard in an Andalusian music group, Los Delinquentes, who use the variant
 656 on eight occasions, and in a non-Andalusian one: Los Chunguitos. It is interesting to note
 657 that two non-Andalusian women also choose the phenomenon: Rosalía (on one occasion),
 658 and Montse Cortés, who has selected it on seven occasions. These two singers are not
 659 Andalusian, but they sing in the TF. The traditional sounds, in these cases, are used in the
 660 NF as an inheritance and imitation of the cante style.

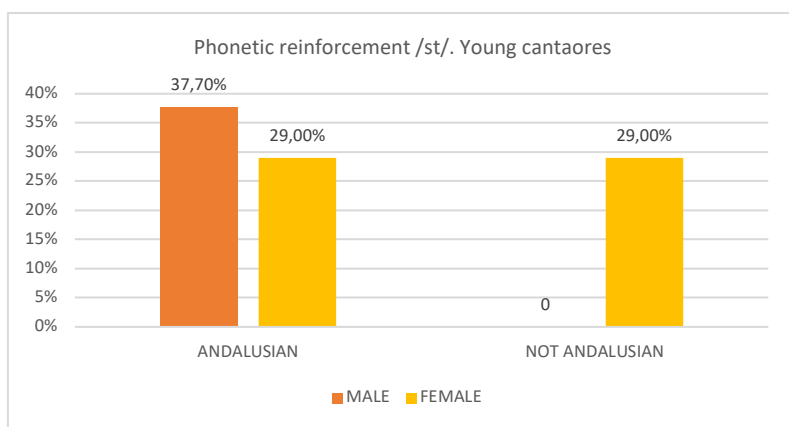
661

662 5.2.2. Reinforcement of /st/ and /b/

663

664 The affricate pronunciation of /st/ in flamenco in words like “fuiste” (“you were”)
 665 [ˈfwih̥tse] appeared sporadically in the corpus on the TF. However, this variant is now
 666 gaining ground among younger singers. Occurrences in the NF have increased
 667 considerably. There are 129 occurrences in the NF corpus, compared to 41 occurrences
 668 in the TF corpus. Furthermore, it is interesting to note that this variant in the NF is
 669 restricted to the third generation.

670



671

672 **Figure 10.** Pronunciation of /st/ as [hts] in the NF. Results of the pronunciation of
 673 young singers according to gender and origin.

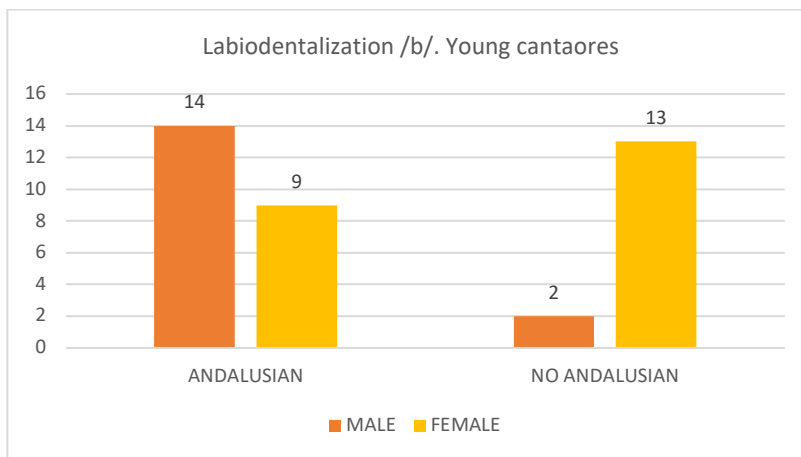
674

675 The affricate pronunciation of /st/ is a young phenomenon with an Andalusian origin (in
 676 male -37.70%, and in female - 29%) and, moreover, it is becoming generalised in non-

of between 26.79 ms and 23.58 ms in examples of /k/ in initial position (depending on the emotion of the speakers). The same researchers, taking into account some studies carried out since the 1960s in Spanish, propose an average duration of /k/ of 28.59 ms.

677 Andalusian cantaores (29%) (Figure 10). We are, therefore, faced with a change in
678 progress that is being imposed in the TF and, without doubt, in the NF.

679 On the other hand, the pronunciation of the labial occlusive sound /b/ as a
680 labiodental /v/ has been observed in the corpus of the NF²⁴. This change is also an
681 articulatory reinforcement made by some singers, but it is not related to a southern
682 phenomenon.



683
684 **Figure 11.** Labiodentalization of /b/ in the NF. Occurrences (N) of the pronunciation of
685 young singers according to gender and origin²⁵.

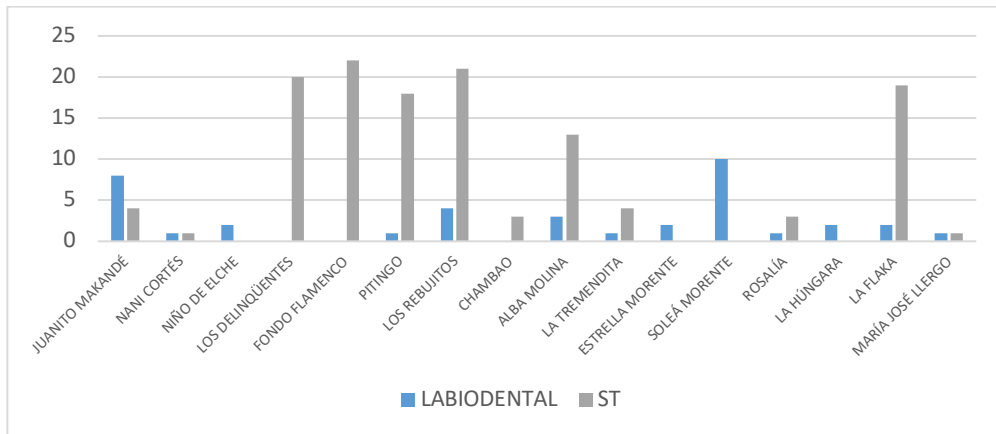
686
687 The use of the labiodental is again restricted to the third generation (Figure 10). 38
688 occurrences have been collected in the corpus. The phenomenon appears, above all, in
689 non-Andalusian women (13) and Andalusian men (14). Andalusian women use
690 labiodental, but less frequently (9). Although it is true that these are not generalised
691 changes, given that there are few occurrences, they are phenomena chosen by the same
692 groups (young cantaores). This phenomenon is not very systematic and is not yet an
693 indexed feature (no data on this sound was collected in the TF), but it is undoubtedly
694 being used by the new generations.

695 As these are two similar phenomena (although the first is attested in Andalusia as
696 an innovative phenomenon), we wanted to check whether there is a relationship between

²⁴ In Spanish (from Spain, more specifically) the sound /b/ is a voiced labial stop sound when pronounced after a pause or after /n/ or /m/. In intervocalic position and in other contexts (e.g., after consonants other than /n/ or /m/), speakers use the voiced labial approximant allophone [β]. However, this new labiodental sound /v/ is not in the phonological system of the speakers.

²⁵ We have represented the number of occurrences of this phenomenon because we believe that it is not appropriate to show percentages of low occurrences. We will use this method of description for phenomena that have few occurrences.

697 individual variables and the innovative pronunciation of the variants [hts] and [v] in
 698 cante:



699
 700

701 **Figure 12.** This figure shows a comparative analysis between the choice of the
 702 labiodental variant /v/ and the articulatory reinforcement of the group [st] in the young
 703 singers of the corpus. We have included occurrences (N), not percentages, because we do
 704 not have enough data to present frequencies.

705

706 Following the results of figure 12, we could say that, habitually, the singers who use the
 707 articulatory reinforcement of /st/ also use the labiodental of /b/. Most of them are
 708 Andalusian, such as Juanito Macandé (who uses the labiodental even more often than the
 709 affricate), Nani Cortés, Pitingo, Los Rebujitos, Alba Molina, La Tremendita, La Húngara,
 710 La Flaka and María José Llergo. Some non-Andalusian performers such as Rosalía or El
 711 Niño de Elche also use both variants. Perhaps we could speak of a change promoted by
 712 Andalusian singers (women and men) that is also followed by the non-Andalusians of the
 713 new generations of the NF; they are two variants that are being used in this new variety
 714 of the genre and that, little by little, may also become part of the NF.

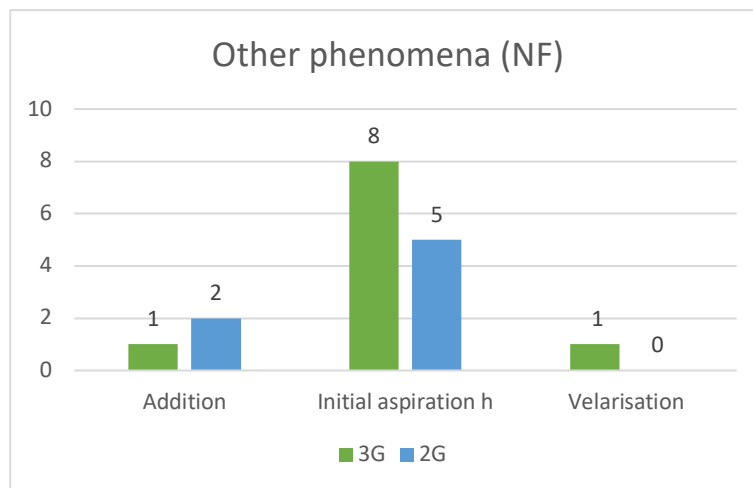
715

716 5.2.3. Other phenomena

717

718 Although generally, and as we have seen in previous sections, some features that do not
 719 have a high linguistic prestige have been associated with TF, their use is not systematic
 720 in cante, although some variants can indeed be found. In fact, unlike what happens in TF
 721 (see Figure 2), in NF its use is not systematic and is only used by some cantaores.

722



723

724 **Figure 13.** Analysis of non-systematic phenomena in the NF. These phenomena are not
 725 usual in Spanish and are generally associated with low sociolects. For this reason, we
 726 have included occurrences (N) and not percentages. We have used generation to observe
 727 possible changes over time.

728

729 In the corpus of the NF, examples of phenomena related to low sociolects are occasional
 730 (see Figure 13). The phonetic prostheses of final /n/ is only observed on three occasions
 731 (in singers such as Juanito Macandé and Montse Cortés) and one velarisation in Los
 732 Deliquentes when they sing “La noche de nochebuena” como [la 'noʃe ðe noʃe 'ɲwena]²⁶.
 733 Finally, although it seems that the aspiration of [h] is more frequent, this is not the case:
 734 in young people the occurrences increase because they are repeated in the chorus of
 735 Chambao: "me gusta [hu'ma] a diario"; in the second generation it is used by Raimundo
 736 Amador (tu pare Luis [ha'sia]), one in Martirio (la burla lo ['hjere]) and one, also, in Lole
 737 Montoya (me va calando ['hoɲdo]). However, as can be seen, these cases are sporadic
 738 examples in specific songs, with a much lower frequency than in the TF (see Figure 2).

739

740 6. Discussion

741

742 The results of our analyses allow us to verify that we can indeed listen to more southern
 743 phenomena in the TF than in the NF. In our regression study (see Appendix 3), in fact,
 744 we observed that in both types of flamenco, singers use general southern variants such as
 745 the lenition of /s/ or the aspiration of /x/. However, seseo is more likely to appear in NF
 746 than in TF. These data are justified, above all, because in TF we find the seseo very

²⁶ “Nochebuena” or Christmas Eve is a religious festival celebrated in Spain on 24 December.

747 frequently (because it was an indexical sign in the origins of flamenco), but there are also
748 other variants such as the ceceo (for example, in the third generation) and the distinction
749 of /θs/. Finally, we note that other phenomena such as fricatisation of /tʃ/ and rothacism
750 are also less likely to occur, although, as we have seen in the frequency analyses, singers
751 continue to use these variants in both types of flamenco.

752 From the general data, in order to know the socio-stylistic distribution of the phonetic
753 phenomena we have studied, we have carried out a binary logistic regression analysis (see
754 Appendix 3); with this inferential test we check how the independent variables
755 (generation, gender and origin) influence the selection of the southern variant of each
756 phenomenon. With this we will be able to corroborate the results we have presented in
757 this paper with statistical tests and, also, to summarise and describe the actuality of the
758 sounds of flamenco today. Below, we will see how the variables used have an influence".
759 With this, I present the subsequent explanations argumentatively.

760 - Generation: According to our data, in the TF, second-generation singers choose
761 general sounds from southern areas (the lenition of /s/ or the aspiration of /x/) and
762 also differential phenomena from some areas of Andalusian speech, such as the
763 fricatisation of /tʃ/. Young people also use these sounds, but these singers are more
764 likely than the second generation to use seseo (an indexical phenomenon of cante
765 in the early periods) and rothacism (a differential marking also typical of
766 flamenco). However, in the NF, the members of the second generation (especially
767 the men) generally break away from the traditional tendencies. We are in a time
768 of change and renewal, and these groups of new singers do not systematically
769 repeat the patterns of TF but decide to keep their vernacular variants. The only
770 phenomenon they preserve is the seseo because it is in fact a differential symbol
771 required in the cante. On the other hand, according to our data, the new NF
772 generations do use southern phenomena more frequently. In these groups it is
773 more likely to observe diatopic variants (fricatisation) (see figures 5 and 6) or
774 rothacism (see figure 9), for example. The new generations retain the
775 representative phenomena of the genre in this new type of music. So, although the
776 type of music is different, the phonetic phenomena do respect and represent the
777 tradition.

778 - Generation x gender. In both TF and NF, men of the third and second generation
779 are more probable to use southern and differential phenomena such as fricatisation
780 or seseo. Women, on the other hand, use general southern variants (such as the

781 aspiration of /x/ or the lenition of /s/) as well as rhotacism. In the NF, however,
782 there is a significant difference: in this group, young men use southern and also
783 differential variants (in young singers, the use of [ʝ] and rhotacism is reinforced).
784 Seseo is more likely to appear in women. These data corroborate the previous
785 information: in the face of the renovation that took place in flamenco in the 1960s,
786 the new generations were aware of the representative sounds of the genre, and
787 they use and revitalise some phenomena that are associated and indexicalised to
788 flamenco.

789 - Origin: Are there indexicalised phenomena in NF? We can answer this question
790 analysing the use of the phenomena and the origin of the cantaores. According to
791 the data from the regression analysis, in the TF the pronunciation [ʝ] and
792 rhotacism, two differential (not specifically southern) markings and seseo were
793 used by non-Andalusian cantaores. These are three phenomena that were
794 indexicalised in the origins of cante and these phenomena are preserved in the
795 new generations. However, Andalusian singers used these variants in NF (lenition
796 of /s/, aspiration of /x/, seseo or fricatisation). There is, therefore, a notable change
797 between the two types of cante: in the NF, singers use general southern variants,
798 but less often (see figure 3). The differential phenomena are attributed to
799 Andalusian singers. Therefore, if the cante models of the current NF continue, the
800 new non-Andalusian cantaores will not need to use southern variants because,
801 increasingly frequently, this type of musical profile omits the adaptation to the
802 phenomena indexicalised in the TF.

803

804

805 7. Conclusions

806

807 From the study of the two corpora elaborated on flamenco, we have obtained relevant
808 results which, undoubtedly, reflect both the tradition and the innovation of the genre. On
809 the one hand, (Hypothesis 1) we have been able to verify that the phonetic phenomena
810 which were generalised in the early periods of cante have survived in the TF and in the
811 NF. (Hypothesis 2) However, in our analyses we have also affirmed that the
812 commercialisation of cante has partially modified the phenomena indexicalised in the TF.
813 (Hypothesis 3) However, other variants associated with southern varieties such as the
814 articulatory lenition of /s/ and /x/, variants from Lower Andalusia such as seseo or the

815 fricatisation of /tʃ/, and also rhotacism, are still preserved in the NF. The frequency has
816 changed, because it has been found that the use of these variants is lower in some groups
817 such as the second generation or women. However, these phenomena survive in NF
818 because, as in TF, they are phenomena specific to flamenco. As Bell and Gibson (2011)
819 pointed out, the loss of phonetic features in a musical genre also means that the audience
820 does not recognise the genre. For this reason, the southern phonetic features have not been
821 radically lost; if cantaores change the musical style and also indexicalised phonetic
822 phenomena, an excessive transformation would take place, which would also imply a
823 reconfiguration of what we know today as flamenco.

824 Flamenco is, therefore, a musical style characterised by the use of phonetic variants from
825 the south and, specifically, from Lower Andalusia. It is a genre that is in continuous
826 renewal and, in fact, phonetically we have been able to observe new sounds; we refer, for
827 example, to the pronunciation of the group /st/ as an affricate [hts] and, also, to the
828 labiodental variant of /b/. However, changes in the types of music also imply some
829 (partial) changes in the genre. These slight changes influence the style, but do not totally
830 change flamenco, which is still an art form with a traditional base, generated in the last
831 decades of the 19th century.

832 This work on linguistic changes in flamenco over time, and also on the behaviour of
833 singers in their performances, is a starting point for the socio-phonetic and stylistic
834 analysis of music in Spanish. In an increasingly globalised world, national singers who
835 are now beginning their international musical careers develop linguistic changes which
836 can be very significant for describing questions of individual ideology and linguistic
837 identity (see Eckert 2012, 2018). With this general analysis of the phonetic phenomena
838 associated with flamenco at different stages, we will be able to analyse whether, in the
839 coming years, cantaores preserve the indexical signs of cante or whether, progressively,
840 they diverge significantly from the phenomena of this genre, as for example has
841 happened, in some cases, in the NF. This work on flamenco can also be a beginning of
842 studies on socio-stylistics and socio-phonetics in Spanish. There are musical genres with
843 very representative phonetic phenomena such as Latin music that have not yet been
844 investigated. This musical genre, which also includes many sub-genres with different
845 origins, has great potential.

846

847 **References**

848

- 849 Agha, A. 2003. The social life of cultural value. *Language & Communication* 23(3–4).
850 231–273. DOI: 10.1016/S0271-5309(03)00012-0.
- 851 Armstrong, E.G. 2004. Eminem’s Construction of Authenticity. *Popular music and*
852 *Society* 27(3). 33–355.
- 853 Asensi, L., Portolés, S., and Del Río, A. 1997. Barra de explosión, VOT y frecuencia de
854 las oclusivas sordas del castellano, *Estudios de Fonética Experimental*, 9. 221-242.
- 855 Beal, J. 2009. You’re not from New York City, You’re from Rotherham: dialect and
856 identity in British Indie music. *Journal of English Linguistics* 37(3). 223– 240.
- 857 Bell, A. 1984. Language style as audience design. *Language in Society* 13. 145–204.
- 858 Bell, A. 2002. Back in style: reworking audience design. In: Eckert, P. and Rikford, J.
859 eds. *Style and Sociolinguistic Variation*, 139–169. Cambridge: Cambridge University
860 Press.
- 861 Bell, A. and Gibson, A. 2011. Staging language: an introduction to the sociolinguistics
862 of performance. *Journal of Sociolinguistics* 15. 555–572.
- 863 Blanco, A. 1997. *Estudio sociolingüístico de la ciudad de Alcalá de Henares*. PHD.
864 Doctoral dissertation. Universidad de Alcalá.
- 865 Coupland, N. 2002. Language, situation, and the relational self: theorising dialect-style
866 in sociolinguistics. In: Eckert, P. and Rickford, J. eds. *Style and Sociolinguistic*
867 *Variation*, 185–210. Cambridge: Cambridge University Press.
- 868 Coupland, N. 2007. *Style: Language Variation, and Identity*. Cambridge: Cambridge
869 University Press.
- 870 Cruces Roldán, C. 2004. El flamenco, un arte contemporáneo. *Andalucía en la historia*
871 7. 54–61.
- 872 Cruces Roldán, C. 2008. El aplauso difícil: sobre la “autenticidad”, el “nuevo flamenco”
873 y la negación del padre jondo. In: Aguilera, M. ed. *Comunicación y música Vol. II*,
874 167–211. Barcelona: UOC Press.
- 875 Cruces Roldán, C. 2012. El flamenco. In: Moreno, I. and Agudo, J. eds. *Expresiones*
876 *culturales andaluzas*, 221–280. Sevilla: Centro de Estudios Andaluces. Consejería de
877 la presidencia. Available at:
878 [https://idus.us.es/xmlui/bitstream/handle/11441/73372/CEA01_revisado24jun.indd.p](https://idus.us.es/xmlui/bitstream/handle/11441/73372/CEA01_revisado24jun.indd.pdf?sequence=1)
879 [df?sequence=1](https://idus.us.es/xmlui/bitstream/handle/11441/73372/CEA01_revisado24jun.indd.pdf?sequence=1).
- 880 Díaz Olaya, A.M. 2012. Los cafés cantantes y su influencia en la actividad musical de la
881 sociedad española de finales del siglo XIX y principios del siglo XX. El núcleo

882 minero de Linares como ejemplo de avance cultural y artístico, 233–246. *Boletín*
883 *Instituto de estudios giennenses* 205.

884 Eckert, P. 2012. Three waves of variation study: the emergence of meaning in the study
885 of sociolinguistic variation, *Annual Review of Anthropology* 41. 87–100.

886 Eckert, P. 2018. Third Wave Variationism. *Oxford Handbook Online*.

887 Edwards, W.F. and Ash, L. 2004. AAVE Features in the lyrics of Tupac Shakur: The
888 notion of “Realness.” *Word* 55(2). 165–178.

889 Gamboa, J.M. 2005. *Una historia del flamenco*. Madrid: Espasa/Calpe.

890 García Marcos, F.J. 1991. *Estratificación social del español en la costa granadina*.
891 Almería: Universidad de Almería.

892 Gibson, A. and Bell, A. 2012. Popular music singing as referee design. In: Hernández-
893 Campoy, J. M. and Cutillas-Espinosa, J. A. eds. *Style-Shifting in Public: New*
894 *Perspectives on Stylistic Variation*, 139–164. Amsterdam/Philadelphia: John
895 Benjamins.

896 González Climent, A. 1955. *Flamencología: (toros, cante y baile)*. Madrid: Editorial
897 Escelicer.

898 Harjus, J. 2018. Sociofonética andaluza y lingüística perceptiva de la variación el
899 español hablado en Jerez de la Frontera. Madrid/Frankfurt: Iberoamericana Vervuert.

900 Hernández-Campoy, J.M. and Villena-Ponsoda, J.A. 2009. Standardness and non-
901 standardness in Spain: dialect attrition and revitalization of regional dialects of
902 Spanish. *International Journal of the Sociology of Language* 196/197. 181–214.

903 Jansen, L. 2022. *English Rock and Pop Performances*. Amsterdam: John Benjamins
904 Publishing Company. doi: 10.1075/impact.51.

905 Jansen, L. and Westphal, M. 2017. Rihanna Works Her Multivocal Pop Persona: A
906 Morpho-syntactic and Accent Analysis of Rihanna’s Singing Style. *English today*
907 33(2), pp. 46–55.

908 Maeve Eberhardt, M.V.-M. 2020. “I ain’t sorry”: African American English as a
909 strategic resource in Beyoncé’s performative persona. *Language & Communication*
910 77. 68–78.

911 Manjón-Cabeza, A. 2014. Aproximación a la norma fónica del flamenco: seseo, ceceo y
912 distinción. In: *Estudios de lengua española. Homenaje al profesor Francisco Torres*
913 *Montes*, 128–138. Granada: Universidad de Granada.

914 Martínez Belda, J.C. and Padilla, X. 2021. El VOT de las oclusivas del español en habla
915 emocional simulada. *Estudios de Fonética Experimental* 30. 35-57

- 916 Melguizo Moreno, E. 2007. La fricativización de /č/ en una comunidad de hablantes
917 granadina. *Interlingüística* 17, pp. 748–757.
- 918 Molina, R. and Mairena, A. 1963. *Mundo y formas del cante flamenco*. Sevilla/Granada:
919 Librería Al-Andalus.
- 920 Molina, I and F. Paredes. 2014. Sociolingüística de la elisión de la dental /d/ en Madrid
921 (Distrito de Salamanca), *Cuadernos de Lingüística*, 2. 55-113.
- 922 Moya Corral, J.A. and García Wiedemann, E. 1995. *El habla de Granada y sus barrios*.
923 Granada: Universidad de Granada.
- 924 Moya Corral, J.A. and Sosinski, M. 2021. La distinción s/θ en Granada: el punto de
925 partida y la situación actual. In: Soto, M. and Zholobova, A. eds. *El español de*
926 *Granada. Estudio sociolingüístico*, 23–48. Berlin: Peter Lang.
- 927 Moya, J.A. and Sosinski, M. 2015. La inserción social del cambio. Distinción de s/θ en
928 Granada. Análisis en tiempo aparente y en tiempo real. *LEA* 37, pp. 5–44.
- 929 Núñez, F. 2011. Historia del flamenco.
- 930 Paredes, F. 2003. *El habla de la Jara. Los sonidos*. Alcalá de Henares: Servicio de
931 Publicaciones de la Universidad de Alcalá de Henares.
- 932 Ros, D. and Ríos Martín, J.C. 2009. *La identidad andaluza en el flamenco*. Sevilla:
933 Atrapasueños editorial.
- 934 Ruiz, M.M. 2000. *Estudio sociolingüístico del habla de Melilla*. Almería: Universidad de
935 Almería.
- 936 Samper, J.A. 1990. *Estudio lingüístico del español de las Palmas de Gran Canaria*. Las
937 Palmas: Caja de Canarias.
- 938 Samper, J.A. 1996. El debilitamiento de -/d/- en la norma culta de Las Palmas de Gran
939 Canaria, En M. Arjona et al. (eds.), *Actas del X Congreso Internacional de la*
940 *Asociación de Lingüística y Filología de la América Latina*, México: UNAM. 791-
941 796.
- 942 Samper, J.A. y Pérez, A.M. 1998. La pérdida de -/d/- en dos modalidades del español
943 canario. *Philologica Canariensis* 4-5. 393-412.
- 944 Samy Alim, H. 2002. Street-conscious copula variation in the hip hop nation. *American*
945 *speech* 77(3), pp. 288–304.
- 946 Santana, J. 2016a. Seseo, ceceo y distinción en el sociolecto alto de la ciudad de Sevilla:
947 nuevos datos a partir de los materiales de PRESEEA. *Boletín de Filología* 51(2), pp.
948 255–280.

- 949 Santana, J. 2016b. Seseo, ceceo y distinción en el sociolecto alto de la ciudad de Sevilla:
950 nuevos datos a partir de los materiales de PRESEEA. *Boletín de Filología* 51(2).
951 255–280.
- 952 Santana, J. 2017a. Factores externos e internos influyentes en la variación de /θS/ en la
953 ciudad de Sevilla. *Analecta Malacitana* 34. 143–177.
- 954 Santana, J. 2017b. Variación de las realizaciones de /θs/ en el sociolecto bajo de la
955 ciudad de Sevilla: datos de PRESEEA-SE. *Linred* Monográfico.
- 956 Soto Melgar, M. 2019. Estudio sociolingüístico de las realizaciones [ʃ] y [j] en el habla
957 de Algeciras. *Póster presentado en el 37 Congreso Internacional de Lingüística*
958 *Aplicada*
- 959 Steingress, G. 2005. La hibridación transcultural como clave de la formación del nuevo
960 flamenco. *Música oral del sur. Revista internacional* 6. 119–152.
- 961 Trudgill, P. 1980. Acts of conflicting identity: a sociolinguistic look at British pop
962 songs. In: Sugathapala de Silva, M. W. ed. *Aspects of Linguistic Behaviour:*
963 *Festschrift for R.B. Le Page. York Papers in Linguistics*, 9. York: University of York
- 964 Trudgill, P. 1983. Acts of Conflicting Identity: The Sociolinguistics of British Pop-song
965 Pronunciation. In: Trudgill, P. ed. *On Dialect: Social and Geographical*
966 *Perspectives*. Oxford y New York: Basil Blackwell y New York University Press,
967 pp. 141–160.
- 968 Vida Castro, M. 2015. Resilabificación de la aspiración de /-s/ ante oclusiva dental
969 sorda. Parámetros acústicos y variación social. In: Cebedo Nebot, A. ed.
970 *Perspectivas actuales en el análisis fónico del habla. Tradición y avances en la*
971 *fonética experimental*, 441–451. Valencia: Universidad de Valencia.
- 972 Vida Castro, M. 2016. Correlatos acústicos y factores sociales en la aspiración de /-s/
973 preclusiva en la variedad de Málaga (España). Análisis de un cambio fonético en
974 curso. *Lingua Americana* 38. 15–36.
- 975 Villena-Ponsoda, J.A. 1996. Convergence and divergence in a standard-dialect
976 continuum: Networks and individuals in Malaga. *Sociolinguistica* 10(1).
- 977 Villena-Ponsoda, J.A. 1997. Convergencia y divergencia dialectal en el continuo
978 sociolingüístico andaluz: datos del vernáculo urbano malagueño. *ELUA* 19(1). 83–
979 125.
- 980 Villena-Ponsoda, J.A. 2001. *La continuidad del cambio lingüístico*. Granada:
981 Universidad de Granada.

- 982 Villena-Ponsoda, J.A. 2008. La formación del español común en Andalucía. Un caso de
 983 escisión prestigiosa. In: Martín Butragueño, P. and Herrera, E. eds. *Fonología*
 984 *instrumental. Patrones fónicos y variación*, 211–253. México: Colegio de México.
- 985 Villena-Ponsoda, J.A. 2013. Actos de identidad: ¿por qué persiste el uso de los rasgos
 986 lingüísticos de bajo prestigio social? divergencia geográfica y social en el Español
 987 urbano de Andalucía. In: Sutil Guillén, R. ed. *Estudios Descriptivos y Aplicados*
 988 *sobre el Andaluz*, 173–207. Sevilla: Universidad de Sevilla.
- 989 Villena-Ponsoda, J.A. y Moya Corral, J.A. 2016. Análisis comparativo de un cambio
 990 fonológico erosivo. Variación de la /d/ intervocálica en dos comunidades de habla
 991 (Granada y Málaga). *Boletín de Filología*, 51 (2). 281-321.

992

993 **Ethics Statement:**

994

995 The author does not have to make any ethical statements in this research. We have not
 996 needed to meet ethical requirements with humans. We also did not need to have
 997 certificates or permissions for personal use from the corpus informants.

998

999 **Author Contributions:**

1000

1001 This article was written by a single author

1002

1003 **Conflict of Interest Statement:**

1004

1005 The authors have no conflicts of interest to declare.

1006

1007 **Acknowledgements**

1008

1009 I would like to thank my colleague Rocio Cruz Ortiz for her participation in this research.
 1010 She reviewed the first phonetic transcriptions to corroborate the viability of the data.
 1011 Thank you for your time and collaboration.

1012

1013

1014

1015 **Appendix**

1016

1017 Appendix 1. Differences between Traditional Flamenco and New Flamenco.

	Traditional Flamenco	New Flamenco
Origin	Traditional influence. It is related to the origins of flamenco singing.	Influence of musical cultures. Young cantaores have easier access to them (pop, rock, jazz, Caribbean music, reggaetón...).
Performance	In flamenco singing "voice" is the main element.	Cante is subordinate to instrumentation: ethnic instruments and music, jazz double bass, saxophone, piano....

Themes	Pain, sorrow (representation of the flamenco “queijo”). Also, festive themes.	Fresh and catchy tunes, banal themes that lack the metaphors of flamenco poetry. These kinds of forms only appear in the adaptations.
Composition and types of cante	Composition: individual couplets.	Standardised, linear songs or musical themes with verses and choruses with a common, simple thread adapted to recordings.
Cantaor on stage	Individual.	Group; creative and theatrical performance.

1018
1019
1020

Appendix 2. Pronunciation results of /s/ according to geographical areas in the corpus

	Zone 1 [θ] como [s] (<i>seseante</i>)	Zone 2 [s] como [θ] (<i>ceceante</i>)	Zone 3 [s] como [s] [θ] como [θ] distinction /s/- /θ/
3G	Córdoba, Sevilla*	Algeciras, Chipiona, Jerez, Puebla de Cazalla, La Línea de la Concepción,	Almería, Badajoz, Barcelona, Burgos, Elche, Granada, Huelva, Jaén, Linares, Los Santos de Maimona (Badajoz), Toledo, Málaga*,
2G	Cádiz, Córdoba, Granada, Linares, Málaga, Sevilla	Chiclana, Estepona, Jerez, La Línea, San Fernando	Alicante, Almería, Badajoz, Barcelona, Ceuta, Huelva, Madrid, Mérida, Valencia, Zafra.

1021
1022
1023

Appendix 3. Results of logistic regression.

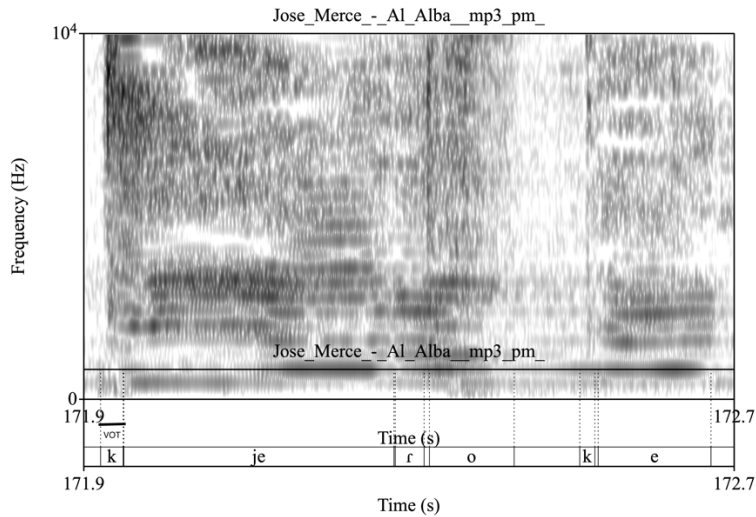
Traditional Flamenco				New Flamenco			
One-level analysis of response “pronuntiation” with predictor(s): phenomena:generation (5.67e-12) + phenomena:origin (1.03e-06) + phenomena:gender (1.24e-06) + phenomena [main effect, not tested] + gender [main effect, not tested] + gen [main effect, not tested] + origin [main effect, not tested]				One-level analysis of response “pronuntiation” with predictor(s): phenomena:generation (2.4e-43) + phenomena:origin (4.57e-27) + phenomena:gender (6.62e-17) + phenomena [main effect, not tested] + gender [main effect, not tested] + generation [main effect, not tested] + origin [main effect, not tested]			
	logodds	tokens	Weight		logodds	tokens	Weight
Phenomena				Phenomena			
/x/ aspiration	2.212	1256	0.901	/s/ lenition	1.158	4473	0.761
/s/ lenition	1.276	7649	0.782	Seseo	0.743	1070	0.678
Seseo	-0.037	2080	0.491	/x/ aspiration	0.468	571	0.615
Rhotacism	-1.185	1668	0.234	Fricatisation	-0.399	305	0.402
Fricatisation	-2.267	418	0.094	Rhotacism	-0.735	878	0.324
Phenomena + generation				Phenomena + generation			
Seseo:3G	0.574	933	0.64	Fricatisation:3G	0.989	155	0.729
/x/ aspiration:2G	0.422	637	0.604	Seseo:2G	0.762	426	0.682
Fricatisation:2G	0.199	288	0.55	/x/:2G	0.479	244	0.618
Rothacism:3G	0.192	739	0.548	/s/:3G	0.286	2615	0.571
/s/ lenition:2G	0.145	4163	0.536	Rhotacism:3G	0.144	479	0.536
/s/ lenition:3G	-0.145	3486	0.464	Rhotacism:2G	-0.144	399	0.464
Rothacism:2G	-0.192	929	0.452	/s/:2G	-0.286	1858	0.429

Fricatisation:3G	- 0.199	130	0.45	/x/:3G	-0.479	327	0.382
/x/ aspiration:3G	- 0.422	619	0.396	Seseo:3G	-0.762	644	0.318
Phenomena:gender				Phenomena:gender			
Seseo: Male	0.367	1057	0.591	Fricatisation: Male	0.505	137	0.624
/x/: Female	0.288	629	0.571	Rhotacism: Male	0.151	432	0.538
Rothacism: Female	0.134	854	0.533	Seseo: Female	0.106	627	0.526
Fricatisation: Male	0.109	224	0.527	/s/: Male	0.057	2268	0.514
/s/: Female	0.054	3895	0.514	/x/: Female	0.038	262	0.509
/s/: Male	- 0.054	3754	0.486	/x/: Male	-0.038	309	0.491
Fricatisation: Female	- 0.109	194	0.473	/s/: Female	-0.057	2205	0.486
Rothacism: Male	- 0.134	814	0.467	Seseo: Male	-0.106	443	0.474
/x/: male	- 0.288	627	0.429	Rhotacism: Female	-0.151	446	0.462
Phenomena: origin				Phenomena: origin			
Rothacism:Not Andalusian	0.998	0.731	0.731	/s/:Andalusian	0.359	2643	0.589
Fricatisation: Andalusian	0.454	0.612	0.612	Rothacism:Not Andalusian	0.161	533	0.54
Fricatisation:Not Andalusian	0.421	0.604	0.604	/x/ Andalusian	0.146	342	0.536
/x/: Andalusian	0.067	0.517	0.517	Seseo:Andalusian	0.118	679	0.529
/x/:Not Andalusian	0.057	0.514	0.514	Fricatisation:Andalusian	0.102	151	0.525
/s/:Not Andalusian	0.057	0.5	0.5	Fricatisation:No Andalusian	-0.102	154	0.475
seseo:Not Andalusian	0.057	0.5	0.5	Seseo: Not Andalusian	-0.118	391	0.471
/x/:Not Andalusian	0.057	0.469	0.469	/x/ Not Andalusian	-0.146	229	0.464
Rothacism: Andalusian	0.057	0.373	0.383	Rothacism: Andalusian	-0.161	345	0.46
misc.1: N= 13071; g.l=21; intercepta=- 5.776; proporción global: 0.915	misc.2: Log.likelihood= - 2871.511; AIC: 5785.021; AICc= 5785.092; Dxy= 0.669 R ² = 0.333		misc.1: N= 8315; g.l=24; intercepta=- 0.576; proporción global: 0.64	misc.2: Log.likelihood= - 3912.187; AIC: 7872.375; AICc= 7872.519; Dxy= 0.616R ² = 0.355			

1024
1025
1026
1027
1028
1029

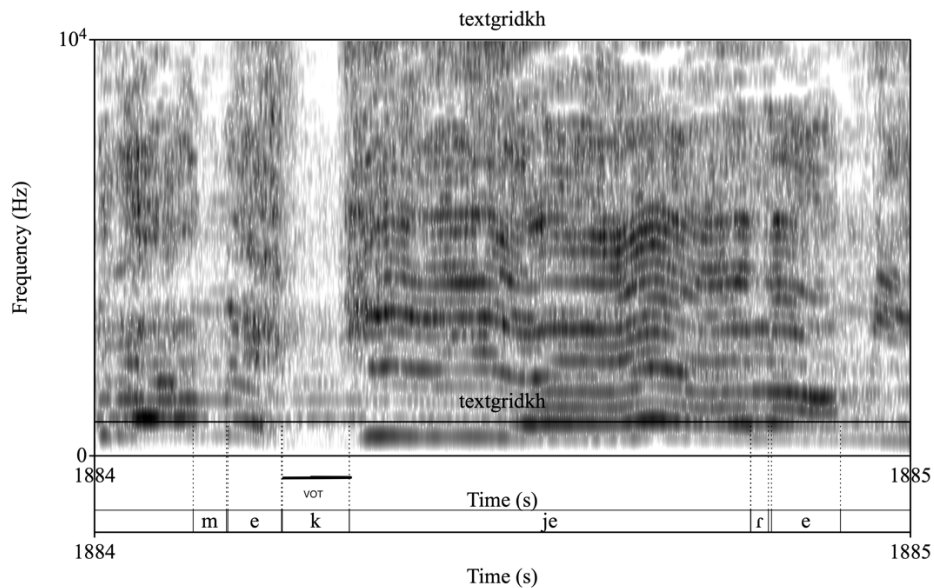
Appendix 4. Spectrograms

Illustration 1. José Mercé. Example of the pronunciation of /k/ velar plosive. In the illustration we see the onset of voicing in the words "quiero" ['kjero] (“I want”) and "que" [ke] (“to”).



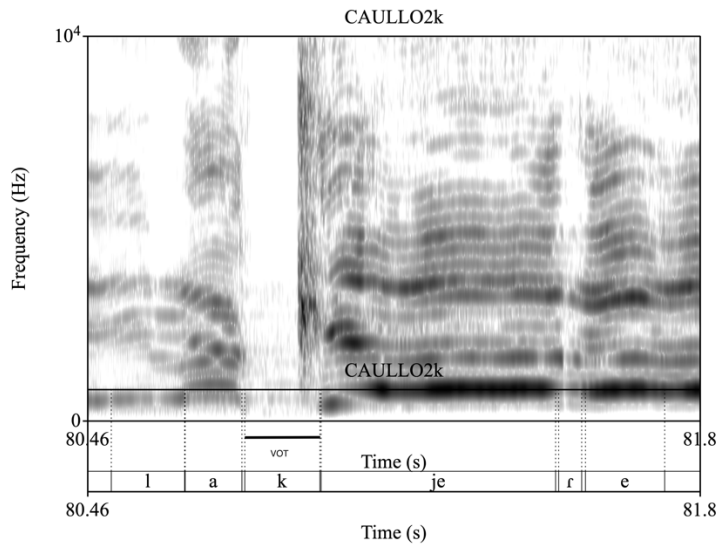
1030
1031
1032
1033
1034

Illustration 2. Camarón de la Isla. Example of the post-aspirated pronunciation of /k/- [k^h]. In the illustration we observe a longer than usual duration between the onset of voicing (VOT) and the plosive bar in the word "me quiere" [me 'k^hjere] ("she love me").



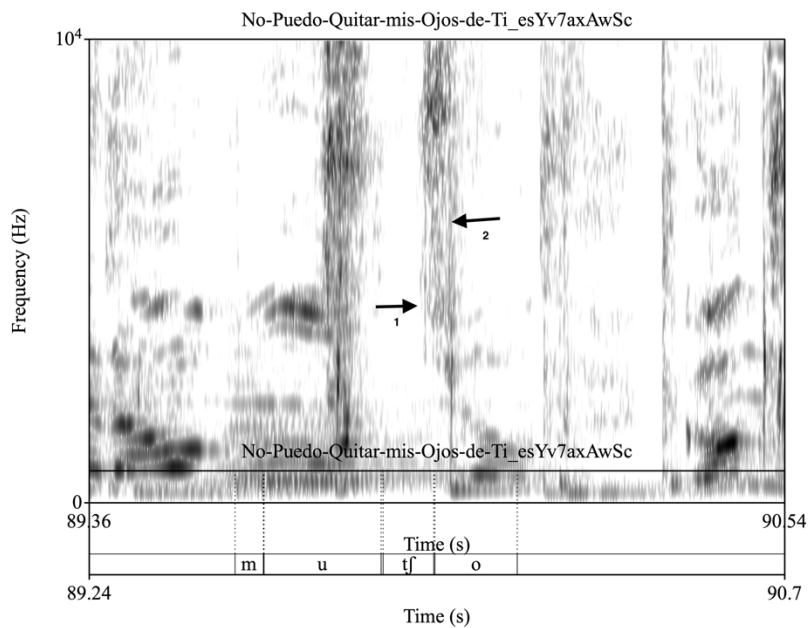
1035
1036
1037
1038
1039
1040
1041

Illustration 3. El Capullo de Jerez. Example of the post-aspirated pronunciation of /k/- [k^h]. In the illustration we observe a longer than usual duration between the onset of voicing (VOT) and the plosive bar in the word "la quiere" [la 'k^hjere] ("He loves her").



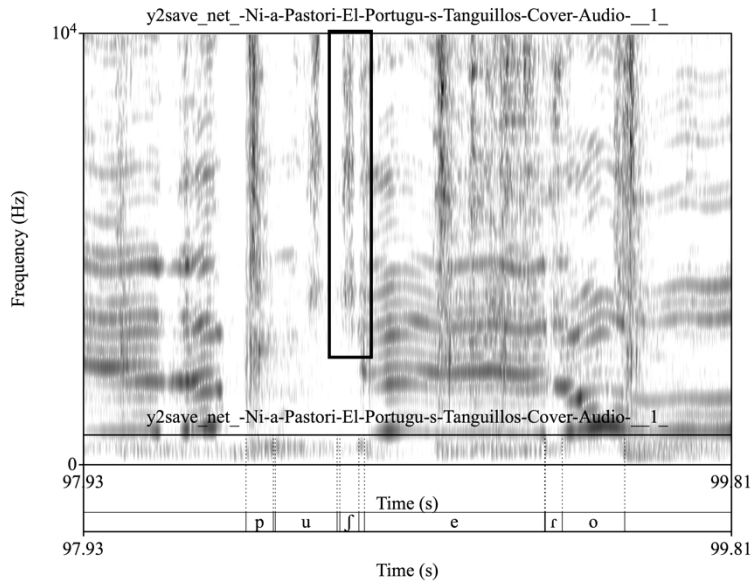
1042
1043
1044
1045
1046
1047
1048

Illustration 4. Alba Molina. The spectrogram shows the stop bar at the beginning of the segment and the subsequent friction.



1049
1050
1051
1052
1053

Illustration 5. Niña Pastori. Example of the affricate pronunciation when she pronouncing the word "puchero" [pu'fero] ("soup"). In the spectrogram we see the friction of the segment [ʃ]. However, we do not find a previous stop bar.



1054
1055
1056
1057
1058