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INTER-SPEAKER ACCOMMODATION AND WITHIN-DIALECT VARIABILITY
Dental affricates and fricative realisation in Marchigiano[1]

LUCIA SBACCO[1], CHIARA MELUZZI[2]
[1]NEWCASTLE UNIVERSITY (UK), [2]UNIVERSITY OF MILAN (ITALY)

Abstract – This study examines the acoustic properties of interactions among speakers of Le Marche's regional variety of Italian. The target population are Italian speakers of two provinces of Le Marche region, Ancona and Macerata, aged 22-26. In particular, this study investigates how social and linguistic variables such as sex and origin influence the speakers' production of complex (or 'marked') sounds like affricates and fricatives during interactions. Data was collected by a background questionnaire, a reading and an interactive task. Results have shown that speakers of different origin tend to accommodate to one another, thus signalling their desire of being included in the interlocutor's linguistic group, whereas those belonging to the same province tend to mark their own characteristics flagging their membership to the same 'social' group. Moreover, following Labov's theories, women accommodate only towards the variants that are perceived as 'socially prestigious', being those of Macerata.

Keywords: regional Italian; dental affricates; fricatives; speech accommodation; Marchigiano.

1.Introduction

This article discusses the patterns of accommodation for complex sounds like affricates and fricatives within the production of speakers of an understudied Italian regional variety, the Marchigiano, with an emphasis on language accommodation between speakers of different origin within the same regional variety (that is, Ancona and Macerata).

As the analysis delves deep into different aspects of sociolinguistics, phonology and dialectology, it is fundamental to bear in mind the characteristics of the variety we took into account. Although it was never considered of much interest, the first account for the varieties spoken in Le Marche was provided by Ascoli (1882), who divided the entire region in two linguistic areas: one of Gallo-Italic influence above Ancona, and the other south, of Umbrian traits. The entire region was described as highly polarised, due to the fragmented nature of its former roman conquests alongside the Flaminian way. This linguistic fragmentation was strengthened by both political and commercial alliances in the region during the centuries, leading linguists and dialectologists to think the linguistic division of the region should follow the typological fracture that corresponds to the two main isoglosses *La Spezia – Rimini* and *Rome – Ancona* (Grassi *et al.* 1997, p. 77). According to Rohlfs' (1966) intuition, the first isogloss *La Spezia- Rimini* follows the

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ancient borderland between the Pope's territories and Florence's properties, whereas the second, *Rome-Ancona*, corresponds to the Salarian way, old border between the north of Le Marche of Lombard property, and the south of the region. Pellegrini's (1977) new isogloss *Massa Carrara- Senigallia* allowed the inclusion of linguistic phenomena that were left out and the consequent reassessment of the entire territory.

The recent phonetic and dialectological descriptions however are very different from those of the last decades, both phonological and syntactic wise. Loporcaro & Paciaroni (2016) argue how the original dialect has been swapped with a new *Italian of dialect influences.* The basis for such a linguistic variation lies in the possibility of the bundle of isoglosses sliding south and in the linguistic contact between literary Italian and the varieties of the area, following Weinreich's standardisation model (2008). This could have created two opposite trends: on the one hand the homogenisation of the regional varieties, on the other hand the creation of new linguistic standards as a result of the acquisition of dialectal traits by the codified language (Auer 2005). These complex sociolinguistic dynamics have been documented in various Italian settings (cf. Meluzzi, Celata 2020 on Sicilian; Cerruti *et al.* 2017), even if some linguistic areas, such as Marchigiano, remained poorly documented and it is still open to debate whether variability in pronunciation conveys socio-communicative meaning both in the individual and in the community repertoires.

At the present, indeed, Tordini (2020) represents a first attempt at acoustically describing consonant variation in Italian spoken in Ancona, with respect to the occlusives /p, t, k/ and the voiceless alveodental fricative /s/. The author takes into account two phenomena characteristics of this variety of Italian, that is the weakening of the occlusives in intervocalic position, and affrication of /s/ after a sonorant /l, n, r/. Her results confirm the presence of all the sociolinguistic markers already listed in dialectological literature; however, their distribution was neither frequent nor regular, thus leading the author to conclude that for the Marchigiano spoken in Ancona it was not possible to highlight a clear separation between the Italian variety and the corresponding romance dialect, and it was better to propose a continuum between a low variety (the dialect) and a high variety (Standard Italian), along which speakers selected variants according to both objective (e.g., speakers' sex) and subjective factors (e.g., speakers' perception, cf. Tordini 2020, p. 275).

With these premises, the present paper aims at describing sociophonetic variability in the Italian spoken both in Ancona and Macerata, according to both the sex of the speakers and the socio-communicative situation (see also point 3). The article is structured as follows: section 2 will delve into the theoretical premises of affricates and fricatives sounds, with particular emphasis on their status in Italian (2.1), and of speech accommodation theory (2.2); section 3 presents the detailed research questions (3.1), and the methods for data collection and annotation (3.2). Section 4 illustrates the analysis carried out, whereas section 5 discusses these results in light to the aforementioned speech accommodation theory. Finally, section 6 presents the preliminary conclusions of this work and its further perspectives.

2.Theoretical premises

2.1. Affricates and Fricatives in Phonetics and Phonology

Dental affricates are extremely complex sounds, whose realisation varies depending on the

"mouth-teeth-tongue" correlation within a language's phonological system (Ladefoged 1995, 2000). Because of their articulatory complex nature, these phonemes are included in a few languages only, like Italian, Polish, Hungarian and Albanian and are marked both in their typological and acquisitional nature (Meluzzi 2016). Affricates are usually distinguishable in the spectrogram because of their double phonemic nature. In fact, they unfold in a first plosive phase, during which the diaphragm is completely tense, followed by a second fricative phase, generating from a diaphragm pang. Italian phonetic repertoire includes four affricates, two alveo-dental (voiceless /ts/ and voiced /dz/) and two alveo-palatal (voiceless /tʃ/ and voiced /dʒ/) (Celata 2004, p. 33). Endo and Bertinetto (1999) argue that the voiceless alveo-dental /ts/ variant is the longest in duration in inter-vowel position within the Italian phonetic repertoire, followed by the geminate voiceless alveo-palatal /t(:)ʃ/, about 140-150 ms long. The voiced alveo-dental /dz/, the geminate voiced alveo-palatal /d(:)ʒ/ and the singleton voiceless /ʃ/ follow, being about 110-120 ms long. The shortest variant is the singleton voiced alveo-palatal /dʒ/ (only 80 ms.). The duration of these phonemes then changes depending on diatopic variation.

Fricatives on the other hand, are produced through the emission of air out of the oral cavity. Depending on its intensity, the realisation of the fricative can be either rough or delicate, producing voiced or voiceless sounds (Sorianello 2002, p. 1). Italian repertoire counts three different types of fricatives: labiodentals /f/, /v/; alveolars /s/, /z/ and voiceless postalveolar /ʃ/. Sorianello (2002) argues that Italian fricative sounds should be distinguished between sibilants (/s, z, ʃ, ʒ/) and non-sibilants. The former is usually rough and intense because of the tongue articulation that produces them. Ali *et al.* (2001) analysed the duration of all variants of fricatives and discovered that voiced fricatives are usually shorter than their voiceless counterparts. Fricatives usually appear on the spectrogram as an aperiodic signal with a few peaks. Depending on their sonority, they could partially appear less on the spectrogram, in a phenomenon that Ali *et al. (*2001) call "voicingless zone".

2.2. Accommodation and Phonetic variability

Speech accommodation theory (SAT) was firstly formulated in 1973 (Giles *et al.* 1991) showing a new "accent mobility" model in contrast with some aspects of Labovian nature (Labov 1972, 2001, 2010). This publication argued that the former models of the role of formal- informal contexts and the criterion of "attention to speech" could be partially reinterpreted. Variation within discourse between an interviewer and its interlocutor, for example, wouldn't vary much according to the speech style or the formality of the context of the speakers, but rather depending on the interpersonal influence that develops between the two. That said, a few theoretical refinements were applied since, and SAT focused mainly on analysing the factors underlying speech and the social and linguistic constraints operating on it. More precisely, it investigated the convergence and divergence in a speaker's speech.

Since its first formulation, the scope of the theory has widened and became inclusive of interdisciplinary perspectives, hence the broader definition of *CAT Communication Accommodation Theory.* According to this theory, convergence is a strategy by which speakers mould and attune their communicative behaviours to each other. By communicative behaviours verbal, non-verbal and prosodic features are included. Despite erasing some interpersonal differences between interlocutors, such strategy apparently corresponds to social variables, such as age, gender, interpersonal orientation or social sensitivity. Divergence on the other hand is the way whereby speakers

pinpoint linguistic and non- verbal differences between them and others, (i.e.to maintain integrity, identity and one's distance).

The core of these linguistic behaviours appears to be socio-psychological: speakers attain to these linguistic measures whenever they feel the need to fulfil the expectations of the interlocutor, when it is necessary for them to be included in a very exclusive group or when they recognise themselves in a well-defined identity. These are extremely automatic processes that are triggered in our brains by external conditions and are being regulated by the feedback every speaker receives from communicative strategies already used. The greater the need for approval from the exclusive community, the bigger the linguistic convergence.

Recent works within a sociophonetic framework have emphasized how fine-grained phonetic variation could be described as a result of accommodation both within-speaker (i.e., in case of stylistic variation) and between-speaker. As for within-speaker variation, Sharma (2018, p. 19) emphasizes how attentional effects are also important in shaping cross-stylistic variability and "they can cause vernacular to surface for reasons other than social stance-taking". In Sharma's perspective *attention* is also related to the cognitive primacy of first-learned speech styles, thus leading to a better understanding of the structure of the sociolinguistic repertoire of the individual and, after that, the community (cf. also Schilling-Estes 2002).

3. Methodology

3.1. Research questions

The present study aims at investigating speaker accommodation for affricates and fricatives of Le Marche's regional variety of Italian in intra- and inter-provincial interaction contexts.

In particular, it seeks to answer the following research questions:

- Do speakers of Le Marche's regional variety of Italian accommodate to one another?
- How does accommodation for affricates and fricatives unfold and what social factors is it influenced by?
- Can the repertoire of a single speaker vary within its own oral production?

To answer these three questions, we considered different linguistic variables such as sonority, duration and place of articulation. Social variables such as sex and origin were crucial in both determining and explaining the grounds for accommodation, especially in inter-provincial interactions. The third and last research question dwells with the need of observing variation within the linguistic production of a single speaker in the phonetic range of the same discourse. It is possible to hypothesise that all participants accommodate towards one another, especially converging in cases in which both speakers come from the same province and have managed to build intimacy, thus sharing linguistic and identity traits.

On the other hand, subjects that do not share the same origins (province-wise) and are not yet acquainted with one another are thought of diverging more. Results were discussed in light of the *CAT Communication Accommodation Theory* (Giles, *et al.* 1991).

3.2. Data collection and annotation

For the purpose of this study, a sample of 8 speakers aged 22 to 26, balanced for both sex and province of origin were taken into account. Despite it being made up of 8 participants only, the sample is extremely cohesive and data collection resulted in a great number of tokens nevertheless. Following ethical approval and consent, two sources of data were collected:

- Participants were asked to fill a background questionnaire which delves into language use and habits (particularly in that of their variety) in their families and their perception of different Italian accents.
- Speakers took part in two frontal recording sessions, consisting of both reading and interacting tasks.

The first session was a reading task consisting of sentences with 51 target words containing affricates and fricatives in key phonological contexts (#C, VCV, VCCV, SCV) selected mirroring similar research protocols for affricates (Meluzzi 2020). Following previous works on speech intelligibility and phonetic variability, we have not included speech rate as a variable factor for the analysis of duration of dental affricates (see, among many others, Vaughan, Letowski 1997; Rhebergen, Versfeld 2005; Cooke, Aubanel 2017). The same target words were then used in the second session, where speakers were asked to carry out a map task in pairs. Each pair would be recorded a total amount of four times, twice each session, so that the roles of *giver* and *follower* were switched between the two each time. Alongside this, participants were asked to carry out the map task differently during the second session of recordings, so that they could not familiarise with the task.

When creating the list, words were selected adopting a lexical criterion (partially taken from Meluzzi's 2016 wordlist), meaning that only existing Italian words could be taken into account. A total of 70 types for dental affricates were selected. Together with the previously mentioned phonological contexts, the wordlist for fricatives included the nexuses /-st-/, /-sp-/, /-sk-/. We also included two distractors, *buco* and *oca*, that weren't labelled during the process of analysis, that were meant to distract the speaker from palatalisation. The total number of types for this second wordlist is 31 for fricatives and 4 for plosives. The participant pairs were created so that each subject would necessarily have to play both roles with every other subject to the study. We created 12 couples for each recording session.

Following the research protocol, 20 recordings per session were made, for a total amount of 40 recordings, set between March and April 2019, using a TASCAM DR05 recorder in soundproof rooms. Two separate corpora were created through data collection: one for each phoneme analysed (affricates and fricatives). We chose to include two speakers to the data collection that were not already acquainted with the rest of the participants (namely a male AN01M and a female AN04F). Such choice allowed us to observe how interactions between these two speakers and the rest of the group would unfold.

Data was saved with a sampling of 44.1 Hz and was firstly transcribed in ELAN and were later annotated on PRAAT (Boersma 2001; Boersma, Weenink 2019). Mirroring existing protocols for affricates' analysis (Meluzzi 2014, 2016), we used a three-tiered annotation system, including orthographic and phonetic transcription and the place of articulation.

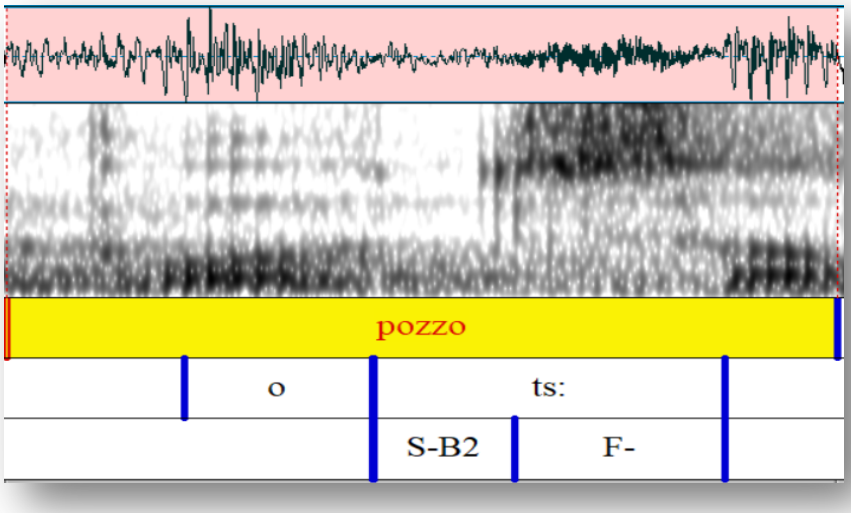

Figure 1
Example of the annotation protocol used, with three tiers of annotation.

Following similar annotation protocols for affricates (Meluzzi 2014), annotation was developed in three tiers named *words, phones, consonants.* The first row was dedicated to the word's orthographic transcription, the second to its phonetic transcription, while the latter consisted in annotating the sonority degree (i.e. + for voiced and – for voiceless) and the articulatory phases (i.e. plosive phase S and fricative phase F). The absence of one of the articulatory phases would be labelled with "*" and "NA" in the second and third tiers accordingly, whereas gemination would be tagged using ":" in the second tier only. Cases of *post burst aperiodicity* (PBA), were marked by separating the two articulatory phases with an E. The label *hC* was used in case of pre-aspiration, namely a diffused noise between 11 and 5Hz (Stevens 2010). When the fricative phase presented more than one burst, it was annotated in the third row using the tag *Bn*, where *n* stands for the number of bursts. Lastly, the tag PAUSA was used to indicate any pause made by the speakers during phonation. Boundaries for affricates were annotated within the third row and consisted in the end of the preceding vowel to the left (therefore the possible fading of F2/F3 formants) and the end of aperiodicity for the friction to the right.

For fricatives it was necessary to elaborate a new tag-set, based on affricate's annotation protocol so that results between the two could be compared. The same three-rowed structure was used, as well as the tags regarding collateral phenomena. The only difference lied in the third row: since fricatives aren't multi-phased phones, only the fricative phase F was annotated, accompanied by + or – depending on the voicing. Cases in which a multi-phased annotation was necessary due to speakers affricating fricative phones, the same tag-set and set of rules used for affricates was adopted.

Statistical analysis was carried out on IBM SPSS 20 for both the affricate and fricative corpora and sub-corpora, by using descriptive and inferential statistics (Student's T-test and bivariate analysis).

4. Data analysis

We analysed the frequency and the modality in which accommodation unfolds among speakers of different Le Marche's provinces or within the same territory. Namely, we

looked at phoneme duration for dental consonant sounds as a hint of accommodation with the interlocutor. In our initial hypothesis duration for consonant sounds would be longer in case of convergence and symmetry between speakers sharing the same province of origin, whereas it would be shorter in case of divergence or asymmetry. All phonological contexts have been observed as the realisation of one variant over the other could imply the attribution of prestige or stigma to that particular context. To begin with, we analysed the difference in durations in the two provinces taken into account, according to the variable of origin (PROV2), as shown in Tab.1 below.

		ANCONA	MACERATA
#C-	**/ts/**	207 ms (st.dev.38.0)	161 ms (st.dev.32.5)
	/dz/	144 ms (st.dev.28.5)	136 ms (st.dev.38.5)
VCV	**/ts/**	221 ms (st.dev.37.9)	199 ms (st.dev.37.3)
	/dz/	141 ms (st.dev.29.8)	124 ms (st.dev.33.0)
VCCV	**/ts/**	202 ms (st.dev.45.7)	194 ms (st.dev.39.7)
	/dz/	162 ms (st.dev.38.2)	148 ms (st.dev.30.7)
SCV	**/ts/**	144 ms (st.dev.30.0)	149 ms (st.dev.35.1)
	/dz/	115 ms (st.dev.35.6)	100 ms (st.dev.31.6)

Table 1
Differences in affricates durations within the phonological contexts according to the variable of origin PROV2.

Table 1 shows how speakers from the province of Ancona generally tend to produce longer durations than those from the province of Macerata for both variants. When testing phonological contexts ($t=4.325$ $p<0.0001$), #C and VCV present the greater range: voiceless realisations /ts/ have a larger scope of variation in the province of Ancona than in that of Macerata, whereas the voiced variant /dz/ varies more in the province of Macerata. The intervocalic geminate VCCV also registers the longest durations for the voiced variant in the both provinces (VCCV 162 ms in Ancona; 148 ms for Macerata). On the other hand, the longest durations for the voiceless variant were registered in the intervocalic singleton VCV for both provinces (221 ms and 199 ms for Ancona and Macerata respectively). Affricate durations were then considered within the context of spoken interactions between Ancona native speakers and those native of Macerata.

		INTRA-PROVINCIAL	INTER-PROVINCIAL
#C	**/ts/**	160 ms (st.dev.17.6)	166 ms (st.dev.37.2)
	/dz/	151 ms (st.dev.41.5)	134 ms (st.dev.31.8)
VCV	**/ts/**	212 ms (st.dev.35.4)	204 ms (st.dev.42.4)
	/dz/	136 ms (st.dev.33.6)	131 ms (st.dev.33.2)
VCCV	**/ts/**	202 ms (st.dev.39.2)	198 ms (st.dev.45.1)
	/dz/	161 ms (st.dev.26.4)	150 ms (st.dev.29.0)
SCV	**/ts/**	151 ms (st.dev.33.7)	151 ms (st.dev.32.6)
	/dz/	113 ms (st.dev.32.0)	104 ms (st.dev.33.9)

Table 2
Affricate durations within the phonological contexts during intra- and inter-provincial interactions according to the task variable MAPTYPE.

The analysis of the variable MAPTYPE ($t=3.241$ $p<0.0001$) resulted in a rather heterogeneous picture (see Tab. 2). The voiceless realisation /ts/ was shorter in intra-provincial interactions than in extra-provincial ones in #C (160 ms and 166 ms respectively), whereas the exact opposite was recorded for the voiced variant /dz/ in the same phonological context (151 ms intra and 134 ms inter-provincial). On the other hand, both VCV and VCCV contexts show longer durations (with a maximum of 10ms difference between the two types) for both realisations in intra-provincial interactions. Interestingly, SCV shows no variation in duration for /ts/ in both interactions, while /dz/ only becomes slightly shorter (113 ms intra; 104 ms inter) in inter-provincial interactions.
The same analysis was carried for fricatives and the same variables of origin (PROV) and of task (MAPTYPE) were taken into account.

FRICATIVE	ANCONA	MACERATA
/s/	131 ms (st.dev.34.6)	129 ms (st.dev.58.3)
/z/	104 ms (st.dev.26.7)	95 ms (st.dev.22.1)
/ʃ/	199 ms (st.dev.41.6)	215 ms (st.dev.41.1)

Table 3
Fricative durations in the provinces of Ancona and Macerata.

As far as the variable of origin (PROV) is concerned (see Tab. 3), all variants of fricative present longer durations in the province of Ancona (/s/ 131 ms, /z/ 104 ms and /ʃ/ 199 ms), with the exception of /ʃ/ which is generally longer (215 ms) in Macerata.

	#C	VCV	VCCV	SCV
AN /s/	140 ms (st.dev.33.0)	133 ms (st.dev. 60.7)	194 ms(st.dev.-)	160 ms (st.dev.50.7)
AN /z/	-	93 ms (st.dev.22.3)	-	-
AN /ʃ/	-	-	-	-
MC /s/	140 ms (st.dev.45.8)	109 ms (st.dev.23.2)	-	150 ms (st.dev.49.7)
MC /z/	-	102 ms (st.dev.22.4)	-	-
MC /ʃ/	-	103 ms (st.dev. -)	-	-

Table 4
Fricative durations in the two provinces within the phonological contexts in the provinces of Ancona (AN) and Macerata (MC).

Data in Tab.4 show a few differences between the two provinces when we consider all the phonological contexts. In fact, the /s/ variant only records durations for all four contexts in the province of Ancona, whereas data for VCCV for the province of Macerata are missing. This is most likely due to the composite nature of the stimuli included in the word list. When we look at the /ʃ/ variant, we see there is no record for it for Ancona but only for Macerata. We could hypothesise fricatives are not sensitive to diatopic variation, since t-test results show no statistical significance (t=0.385 p=0.701).

FRICATIVE	INTRA-PROVINCIAL	INTER-PROVINCIAL
/s/	124 ms (st.dev.36.9)	134 ms (st.dev.57.7)
/z/	96 ms (st.dev.18.9)	103 ms (st.dev.28.0)
/ʃ/	195 ms (st.dev.26.8)	213 ms (st.dev.38.2)

Table 5
Fricative durations in intra- and inter-provincial interactions.

A first observation to the variable MAPTYPE (see Tab.5) made clear how all realisations were longer in inter-provincial interactions for all fricative variants (/s/ 134 ms, /z/ 103 ms, /ʃ/ 213 ms). From a second look at the relation between durations, map-type, sex and province of origin a few interesting observations emerged.

ANCONA		INTRA-PROVINCIAL	INTER-PROVINCIAL
FEMALES	**/s/**	138 ms (st.dev.30.5)	138 ms (st.dev.39.1)
	/z/	133 ms (st.dev.35.0)	108 ms (st.dev.35.0)
	/ʃ/	-	211 ms (st.dev.37.4)
MALES	**/s/**	117 ms (st.dev.31.6)	121 ms (st.dev.26.2)
	/z/	95 ms (st.dev.12.8)	103 ms (st.dev.23.5)
	/ʃ/	167 ms (st.dev.46.0)	188 ms (st.dev.34.3)

MACERATA		INTRA-PROVINCIAL	INTER-PROVINCIAL
FEMALES	**/s/**	136 ms (st.dev.39.5)	143 ms (st.dev.76.5)
	/z/	94 ms (st.dev.13.7)	92 ms (st.dev.16.0)
	/ʃ/	197 ms (st.dev.18.7)	229 ms (st.dev.47.6)
MALES	**/s/**	111 ms (st.dev.34.5)	122 ms (st.dev.41.1)
	/z/	91 ms (st.dev.17.2)	106 ms (st.dev.32.0)
	/ʃ/	207 ms (st.dev.13.9)	213 ms (st.dev.28.1)

Table 6
Fricative durations in both provinces within intra- and inter-provincial interactions, according to the variable of sex.

As for the province of Ancona, durations are longer for both sexes in inter-provincial interactions, with the exception of two variants in the girls' production (/s/ 138 ms; /z/ 133 ms), as shown in Tab.6. The voiced /z/ and the voiceless /s/ either stay the same or are longer in intra-provincial interactions. Interestingly, there is no record of postalveolar /ʃ/ in intra-interactions for girls but only in inter-provincial discourse (221 ms). Males, on the other hand, show no particular variation: their productions are longer when interacting with speakers from a different province (Macerata) and both map types display all variants. Macerata's production is slightly different from what has already been observed. Males attain to the exact same linguistic behaviour of their peers from Ancona, by recording longer durations for all realisations in inter- provincial interactions. Girls on the other hand, show shorter durations only for voiced /z/ in inter-provincial discourse (92 ms). Moreover, they produce the postalveolar /ʃ/ in both contexts of interaction. Data resulting from the tests run for the control group, namely the male AN01M and female AN04F outsiders, reinforced the hypothesis of linguistic accommodation.

	INTRA-PROVINCIAL			INTER-PROVINCIAL		
	/s/	**/z/**	**/ʃ/**	**/s/**	**/z/**	**/ʃ/**
FEMALES	167 ms (st.dev.71.3)	101 ms (st.dev.29.7)	-	143 ms (st.dev.80.1)	115 ms (st.dev.31.8)	184 ms (st.dev.64.6)
MALES	97 ms (st.dev.29.6)	84 ms (st.dev.19.8)	158 ms (st.dev.20.7)	95 ms (st.dev.31.6)	85 ms (st.dev.15.3)	189 ms (st.dev.67.9)

Table 7
Fricative durations according to the variable of sex in the case study.

The speakers' intra-provincial durations were generally longer for all variants than those

of inter-provincial discourse (see Tab.7). As for the last two variables, the girl produced longer /z/ but only in inter-provincial interactions, whereas in other tasks her productions were always shorter than the male's. Moreover, she was the only one to produce the postalveolar variant in inter-provincial discourse only, while her male counterpart used the same variant in intra-provincial interactions and in the word list reading task too. A further validation of the accommodation hypothesis lies in the fact that both speakers produce shorter /s/ variant in inter-provincial discourse.

5. Discussion

Data show accommodation patterns for both affricates and fricatives, but they unfold differently for each phoneme. At a first glance, the data for the affricate durations for both Ancona and Macerata showed that the durations produced by the former are longer than those produced by speakers from Macerata. #C and VCV are the two phonological contexts dealing with the greatest range of variation. In fact, the voiceless /ts/ varies more in the province of Ancona than in Macerata's, whereas the voiced /dz/ shows an opposite trend, varying more in the province of Macerata. VCCV and VCV show record of the longest durations for both provinces for /dz/ and /ts/ respectively.

As interactions among speakers are concerned, affricate duration varies the most according to the variable MAPTYPE, namely the interaction between speakers of the same province (intra-) and those from a different one (inter-). The voiceless /ts/ was shorter in intra-provincial interactions than in extra-provincial ones in #C whereas the exact opposite was recorded for the voiced variant /dz/ in the same phonological context. On the other hand, both VCV and VCCV contexts showed longer durations for both realisations in intra-provincial interactions. Instead, SCV showed no variation for /ts/ in both interactions, while /dz/ was shortened in its duration in inter-provincial interactions only.

As data showed, speakers from both Ancona and Macerata either shorten or lengthen the affricate sounds in their spoken production depending on their interlocutor. Since Ancona's affricate duration is slightly longer than that of Macerata's, speakers from the latter accommodate towards their interlocutors from Ancona by lengthening the voiceless affricate /ts/ in inter-provincial interactions only, while the exact opposite is recorded for the speakers from Ancona. In fact, just like their peers, they accommodate towards their interlocutors from Macerata by shortening the voiced affricate /dz/ in inter-provincial interactions only, thus mimicking the most salient characteristic of their interlocutors. On the other hand, no significant variation to the reading task data happens within intra-provincial contexts. Since the variation in the production of both variants involves both sexes, this trend could be traced back to the speaker's need of matching their interlocutors' linguistic identity (Giles *et al.* 1991). This hypothesis was enforced by the data elicited from two speakers, that were later made a case study. Longer accommodating durations of both affricate variants were already spotted in the control group of each province, but a few variations in the measurements were recorded for the case study nevertheless. Both subjects of the case study, a male AN01M and a female AN04F respectively, show different durations, the male producing shorter affricates than the female. This was linked with the speakers' family linguistic background, which was later verified through the answers given in the questionnaire. The girl's family members are all native of Ancona, while the boy's family is rather composite and includes natives from both provinces. Although the linguistic background had a great influence on the speakers'

choices, the familiarity with the chosen variants does not fully explain the significant variations in intra-provincial tasks only.

A different pattern is recorded for fricatives. A first glance at data shows that Ancona's variety registers the longer durations for both fricative variants, although the durations for /ʃ/ make the only exception and are therefore longer by Macerata's speakers. The two variants show discrepancies in the speakers' production within the phonological contexts, being /s/ the only variant to have been produced in all contexts by speakers of both provinces. Conversely, the postalveolar /ʃ/ only appears in VCV by Macerata's speakers. A closer look at data elicited for the variable MAPTYPE confirmed the trend by which all females from Ancona perceive the voiced fricative /z/ shorter duration and the postalveolar variant /ʃ/ as prestigious. In fact, speakers from Ancona only produce it in inter-provincial interaction contexts, whereas this cannot be stated for those from Macerata. Moreover, according to the SEX variable, speakers that attain to the postalveolar production in the province of Ancona are female only. On the other hand, the ownership of both of these characteristics was proved to be part of Macerata's variety, as all the female speakers from this province seemed to reinforce those acoustic cues in their production in both intra- and inter-provincial discourse. Males on the other hand, were unbothered by these characteristics and unsusceptible by their interlocutors. This can be easily traced back to Labov's gender paradox (1966), by which women are more inclined to unconventional linguistic change only when perceived as prestigious and would opt for the traditional cues otherwise. On a more individual level, all speakers varied their own phonetic repertoire when faced with an interlocutor, depending on its sex and origin.

A possible limitation of this study is represented by the relative small number of participants, which could potentially jeopardise the results. However such a small sample of participants is no news to previous research in sociophonetics, especially when dealing with minority languages or sub-varieties (e.g., Henriksen 2014; Combei, Tordini 2017, Taylor 2018). Such small but cohesive samples are in fact still deemed representative of the population of speakers of the varieties taken into account and the research questions that we aimed at answering in this study (and see also Tagliamonte 2006).

6. Conclusion

This article shows the accommodation patterns within the production of speakers of the Italian regional variety of Le Marche. Although it has been generally overlooked in literature, Le Marche's varieties have been of growing interest in the recent years. The data for the study was elicited from speakers aged 22-26 through background questionnaires and frontal recordings. In the latter, they were asked to carry out two different tasks, a word-list reading and a map task, either individually or in pairs. To answer the first two research questions, we can state that different patterns of accommodation between speakers were found in the corpus. Speakers from both provinces accommodated towards their inter-provincial interlocutors, by shortening or lengthening the affricate variant they felt most prominent in the opposite variety's phonetic repertoire. As for fricatives, only females from the province of Ancona were sensitive to the interactions with their peers from Macerata, thus adjusting their phonetic repertoire by favouring shorter durations for /z/ and the postalveolar variant /ʃ/. The first pattern of accommodation (that of affricates) is mainly driven by the basic interlocutor's need of befitting and becoming part of the opposite linguistic community, whereas the pattern shown for fricatives is clearly resulting from the perception of prestige in Macerata's

variants, following Labov's gender paradox. As for the last research question, there's variation even in the individual production by all speakers, regardless of sex, origin and phoneme.

This study will allow for further investigation of the *Marchigiano*, focusing on collecting a broader set of data, with a bigger sample of speakers and a greater number of variables, so that it can be as representative of the variety as possible. It will also serve as the basis for further perceptive and dialectological studies and will hopefully inform theories on the phonological aspects of affricates and fricatives within the provinces of Ancona and Macerata.

Bionote Lucia Sbacco is a PhD student at Newcastle University working on sound patterns by pre-adolescent speakers of Italian heritage in North Tyneside. She has previously worked on sociophonetics of Italian, Italian dialectology and language acquisition.
Chiara Meluzzi is Senior Researcher in Linguistics at the University of Milan "La Statale", where she teaches General Linguistics for the BA in Liberal Studies in Communication. Her research focuses on sociophonetics of Italian, forensic linguistics and forensic phonetics. She is associate editor of the journal *Estudios de Fonética Experimental* and of the Peter Lang book series *Language and Forensics*.

Author's address: l.sbacco2@newcastle.ac.uk; chiara.meluzzi@unimi.it

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