

# Phonetic Features of Neapolitan and Campania Regional Italian in Migrants' Speech

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## Abstract

The study is part of the HELLO CAMPANIA! project and concerns the impact of local linguistic varieties spoken in Campania (Italy), namely Neapolitan dialect and Campania regional variety of spoken Italian, on Italian as foreign language speech of migrants living in Naples. Specifically, the study aims at exploring the presence and the extent of phonetic features on first- and second-generation Sri Lankan migrants' speech, i.e. realization of intervocalic /b/ and /dʒ/, /s/ following nasals, -uo- and -ie- diphthongs, /s/ preceding consonants, and the effect of a number of sociolinguistic factors on their speech. Results show that first generation Sri Lankans partially present Campania features, while second generation speech is strongly affected by Campanian local traits, except for one, i.e. palatalization of /s/ before consonants. Overall, it appears that migrants' generation, exposure to Neapolitan and attendance to Italian classes affect the presence vs absence of given Campania features, with some being the exclusive variant, e.g. closed diphthongs, and some being unconsciously used by first generation speakers and consciously avoided by second generation speakers, e.g. palatalized /s/. Results are discussed in terms of different degrees of migrants' awareness of the perceived 'Neapolitaness' of given phonetic features.

**Keywords:** HELLO Campania, Migration, Language contact, Sri Lankans, Neapolitan dialect, Campania Italian

## 1. Introduction

This study is framed within a wider research project on immigrant languages and their speakers in Campania entitled HELLO Campania! (Heritage Languages and Languages of the Others in Campania, PRIN PNRR Prot. P2022WJ8YF). (Note 1)

HELLO CAMPANIA! is a project about heritage languages in Campania, i.e. the native

languages of different home countries, namely Sri Lanka, Ukraine, Ghana, Bangladesh, Philippines, Senegal, spoken by immigrant communities living in Naples (Moro & Di Salvo *forthcoming*). The project has, among others, the objective of providing a sociolinguistic study on these communities in order to describe the forms of migration-induced multilingualism of different ethnic groups. Accordingly, one of the main interest lies in migrants' multilingual practices with respect to the choice of Italian, the local dialect and their heritage language.

The present study is a first investigation taking the Sri Lankan ethnic group into account and documenting the linguistic features of such speakers' Italian as foreign language. Specific features of their learning process are the interest of other studies (among others, Di Salvo *et al.* 2024; Maffia *et al.* 2024), taking as theoretical and methodological background both migrant (socio)linguistics (among others, Chini 2004) and acquisitional linguistics on Italian L2 (Giacalone Ramat 1993; Pallotti 1998). Here the focus is on the impact of local varieties spoken in Campania, and in Naples, on migrants' Italian L3; more specifically, this work aims at exploring the presence *vs* absence of specific linguistic features, at the phonetic level, in Sri Lankan speech which can be ascribed to the regional variety of Italian, i.e. Campania Italian, and/or to the local dialect, i.e. Neapolitan.

The paper is structured as follows: in §2 and §3 theoretical background on Campania linguistic repertoire and Sri Lankan community living in Naples is provided. §4 addresses the aim of the study while in §5 the method employed for the study, i.e. corpus, participants, analysis, is reported. Results are shown in §6, while results' discussion and final conclusions are reported in §7.

## **2. Campania Linguistic Repertoire**

Campania is an Italian region which provides a rich and complex linguistic space (De Mauro 1980).

From a linguistic point of view, the dialects spoken in Italy are considered the current diatopic varieties of spoken Latin, among which fourteenth-century Florentine was codified in written form becoming the basis for current Standard Italian (Loporcaro 2009).

According to Pellegrini (1977), Campania dialects belong to central-southern dialects, further distinguishable on the basis of the current realization of Latin vocalism in final position (Berruto 2018). Accordingly, dialects spoken in Campania, Molise, Basilicata, northern Apulia and northern Calabria are part of the 'median area', characterized by final unstressed vowels reduced to indistinct schwa [ə]. As for final-position vocalism, linguistic Campania shows features in common with other dialects spoken south of the Roma-Ancora isogloss and outside its administrative borders, e.g. southern Lazio, as well as internal differences due to the presence of intra-regional different dialectal groups, e.g. Lucanian dialects spoken in the southern area of the region (Avolio 2000). Apart from peculiarities of dialectal groups, common linguistic features of Campania dialects are the metaphonetic outcomes of stressed vowels of spoken Latin, i.e. diphthongization and metaphonetic closure (De Blasi & Fanciullo 2002; De Blasi 2006), *raddoppiamento sintattico* playing grammatical functions

(Loporcaro 1997), consonantal variation in strong vs weak position (Fanciullo 1997), the existence of gender neutral (Avolio 1996), and, as already said, final-word vowel weakening.

At the time of the Unification of Italy in 1861 there was a nearly generalized dialect monolingualism (Dal Negro & Vietti 2011) which met the beginning of a long process of Italianization with Italian language expanding in all linguistic domains, from the half of the nineteenth to the half of the twentieth century. From the 1950s the relationship between Italian and dialect was framed into *dilalia* (Berruto 1989), since both codes started coexisting in Italian speakers' repertoire and being used regardless of the degree of formality, type of situational context, functions or domains (Berruto 2012). Italian became the national language still coexisting with the local dialects, although in different ways depending on the regions; indeed, unlike Tuscany, where more than 80% of speakers are reported to mainly use Italian, Campania speakers show a higher number of active speakers of only dialect and Italian with dialect, reaching over 70% of population (Berruto 2018). Throughout Italy the coexistence and the co-use of Italian and local dialects led to processes of Italianization of dialects, dialectization of Italian and the emergence of regional varieties of Italian (De Mauro 2014).

Regional Italian varieties are diatopically differentiated varieties of Italian, namely varieties of Standard Italian as spoken in geographically different areas of Italy, and the outcomes of the prolonged Italian-dialect contact situation after the unification (Telmon 2016). During such a period speakers have transferred linguistic elements of their substratum dialects into the Italian they were learning to speak, and this transfer has involved all the levels of analysis, i.e. phonetics, lexicon, morpho-syntax. As a result, spoken Italian is affected by high levels of geographical variation, so that (neo-)standard Italian accepts the fragmentation into regional standards (Berruto 2012; Crocco 2017). A series of linguistic features, of which Italians are somewhat aware of, allow to recognize speakers' 'regional accent', and, accordingly, their area/region of origin. For instance, the fricative and aspirated realizations of /p t k/ plosives work as well-recognizable traits across Italy of Florentine/western Tuscan Italian and Calabria variety, respectively (Vietti 2019).

As far as Campania is concerned, it is a dialect-speaking region with long attested traits of vitality and conservation of the dialect and Campania regional accent is generally assumed to be easily recognizable by non-Campanians as well. Such recognizability is due to specific characteristics on different linguistic levels, (Note 2) but it has mostly to do with pronunciation, i.e. segmental and suprasegmental elements, (Note 3) and the influence exerted by local dialects.

For the purposes of this study, a selection of phonetic phenomena of Campania regional Italian is reported (Sornicola 1997; De Blasi & Fanciullo 2002):

- mid high pronunciation of -o- and -e- in -uo- and -ie- diphthongs, hence pronounced [wo] and [je], contrary to mid low vowels of Italian resulting in [wɔ] and [jɛ];
- pronunciation of -i- after voiceless palatal consonant, [ˈtʃielo] *cielo* 'sky', unlike Italian [ˈtʃɛlo];

- strengthening of /r/ in word-initial position (*rrobba* ‘stuff’);
- centralization of unstressed, especially, final vocalic sounds;
- voicing of voiceless consonants after nasals, e.g. [dende] *dente* ‘tooth’.

Other features are not peculiar of Campania regional Italian, rather characterize Italian varieties spoken in the central-southern dialectal area outlined by Pellegrini (1977), such as

- absence of phonological opposition between intervocalic voiced and voiceless fricative, i.e. /s/ and /z/ both realized as [s] in central-southern varieties (De Blasi & Fanciullo 2002);
- a generalized presence of *raddoppiamento fonosintattico*, i.e. gemination of the consonant in word-initial position when the preceding word is a monosyllable or a polysyllable with final-syllable lexical stress, occurring in central and southern varieties;
- palatalization of alveolar sibilants /s/ and /z/ preceding consonant, { p, k, f } and { b, g, v }, respectively, e.g. [ʃka'vare] *scavare* ‘to dig’ (Telmon 2016);
- fricative realization of post-alveolar affricate ([‘paʃe], unlike Italian [‘patʃe] *pace* ‘peace’) typical of Rome Italian and gradually spread as a feature of central Italian origin (Vietti 2019);
- affricate realization [ts] of post-sonorant /s/, as in *penso* ‘(I) think’ [‘pentso] (Vietti 2019);
- lenition of /p t k/ as a macro-regional feature related to central-southern Italy (Vietti 2019);
- strengthening of /b/ and /dʒ/ in intervocalic position (actually, in the Neapolitan dialect, only the strengthened variant is present, see Radtke 1997), shared among central and southern Italian varieties (Vietti 2019).

As for linguistic repertoire, Campania provides a rich linguistic scenario encompassing Standard Italian, although almost totally absent in oral communication on a daily basis, regional variety of Italian, the variety of which Campanians are native speakers, and Campania dialects. For the goals of the study, we will only refer to Neapolitan dialect.

Nevertheless, it is a varied repertoire with no clear-cut boundaries among the local varieties also due to structural similarity. This area presents hybrid forms that cannot be clearly attributed to one variety (Neapolitan dialect vs regional Italian) and that might be considered as more or less marked towards variety A or B variants coexisting (Milano 2007:175; example of *stavo*). The absence of clear-cut boundaries between local dialect and local variety of Italian emerges from the analysis of a Neapolitan singer conducted by Barco & Marra (2021); code-switching events from Neapolitan dialect to regional Italian are highlighted by reporting examples with strengthening of intervocalic /b/ (*poss[bb]ilità*) and palatalization of fricative preceding voiceless velar plosive /k/ (*non ti scordar di me*).

### 3. Sri Lankan Community in Naples

According to data from the National Institute of Statistics, in 2023 the Sri Lankan ethnic

community is the largest in Naples, with 14627 presences, representing the 26% of the total foreign population. It is described as a well-established community in a limited area of the city, mainly settled in popular neighborhoods of the historic center of Naples, i.e. I, II and III Municipality, motivated by the presence of public transport and diverse work activities even for foreign population (Guadagno 2022; Rapporto Dedalus 2023).

Moreover, Sri Lankans represent one of the most numerous groups of foreign students attending Italian L2 classes (Maffia & Maffia 2013; Spina 2013). Still despite this, studies report very frequent phenomena of fossilization of interlanguage at a basic level of development (Garzonio & Gracci 2006; Spina 2013).

When living in Italy, migrants face with a plurilingual scenario encompassing the two extremes of the local dialect and Standard Italian and the regional variety of Italian. In this light, the varieties of the Campania repertoire represent to some extent the foreign languages with which migrants come into contact when arriving in Naples. (Note 4) Workplace, neighborhood and everyday life provide for migrants a rich and dynamic repertoire resulting in an acquired repertoire consisting of dialect and non-standard variety (Maturi 2016).

Beside this complexity, migrants come with their own heritage languages. Sri Lankan community has a plurilingual heritage repertoire, composed of Sinhalese as mother language, English and possibly Tamil taught in schools and spoken in everyday life. To put it simply, native varieties spoken in Campania represent for Sri Lankans additional languages. An investigation on features in Sri Lankan speech fits in Third Language Acquisition (TLA) in that it refers to the acquisition of a third or additional language (Cenoz 2013; D'Angelo 2023). In this light, we will refer to Campania regional Italian and Neapolitan dialect as speakers' L3.

Zooming in on Naples, on the basis of speakers' different sociolinguistic profiles, in some of the city areas the dialect is more used with respect to regional variety of Italian. Sri Lankans usually live in areas of the historic center (e.g. San Lorenzo, Porto, San Giuseppe) where an exclusive use of dialect is attested (at least in informal conversation) with respect to other more Italian-speaking areas of the city, e.g. Chiaia and Arenella (De Blasi 2013). It is worth underlining that mixed (Italian and dialect) solutions and different individual variation due to diverse sociolinguistic status of the varieties in different speakers are reported as well (Milano 2007). In the light of such characteristics, Pellegrino, Salvati & Vitale (2015) and Di Paola (2013) select the II Municipality (areas of San Giuseppe, Montecalvario, Porto) for their investigation on migrant speakers' (including Sri Lankans) speech in Italian L3 for two main reasons: high presence of migrant population and dialectal vitality in linguistic uses by the local population. Therefore, Sri Lankans' linguistic repertoire is enriched, although to a different extent, with Neapolitan dialect as well. Indeed, with the aim of exploring multilingualism in Campania, second generation migrant students investigated in Di Paola (2013) declared to speak Italian, in addition, about half the participants declared to speak Neapolitan. Actually, the dialect is not spoken in domestic context, e.g. at home with close relatives, but it becomes part of migrants' linguistic repertoire by means of spontaneous situation, hence 'non-didactic communication', between students of foreign origin and Italian

classmates.

According to Maturi (2016), different factors might have an impact on the acquisition/learning of foreign varieties by migrants: education level in the home country, i.e. the higher the education, the more awareness of the linguistic complexity and anti-dialectal attitude; sociolinguistic characteristics of the home country, e.g. migrants coming from diglossia situations are more likely to accept plurality of linguistic varieties; work activity in Italy, i.e. toward the dialectal pole vs Italian-speaking pole; gender, e.g. with women tending to be less dialect-speaking than men; urban area, in the linguistic differences between city center and de-centered small towns; generation, i.e. first-generation being more oriented to the lower pole of dialect-Italian continuum with regard to second-generation; personal relationship, i.e. relationship with Italian people can lead to competence in dialectal varieties. Quite surprisingly, the length of residence in Italy appears not to play a role instead (Pellegrino, Salvati & Vitale 2015).

Different studies revealed the outcomes of linguistic contact in cases of migration, with migrants resorting to structures and expressions of the local varieties, e.g. use of *essere* ‘to be’ vs *stare* ‘to stay’, pronominal doubling (Mattiello & Della Putta 2017; Della Putta 2021), wrong use of the auxiliary (selection between *essere* and *avere*; Maturi 2016). Studies have dealt with errors arising during the learning process of Italian as foreign language by Sri Lankan migrants in Campania, mainly focusing on the influence of their L1 on different levels, i.e. lexical, morpho-syntactic; on the phonetic level, no observations on Neapolitan dialect-region Italian contact in oral production are reported (Spina 2013).

Hence, despite peculiar, and mainly phonetic, features are highly recognizable and pervasive in spontaneous speech in Campania/Naples, less interest has been shown in contact outcomes as far phonetic aspects are concerned. To the best of our knowledge, only Pellegrino, Salvati & Vitale (2015) investigate the case of phonetic transfer from Neapolitan to L2 Italian speech. Actually, since phonetic aspects considered are somewhat shared by local varieties, i.e. Neapolitan and regional Italian, it is difficult and incautious to observe given aspects, e.g. the realization of intervocalic /dʒ/ as geminate [ddʒ], and to ascribe such occurrences to the influence of Neapolitan, since regional Italian presents such aspect as well (Telmon 2016). Therefore, studies exploring phonetic contact and the impact of Campania varieties on migrants’ speech are still missing.

#### **4. Aim of the Study**

This study carries out the first investigation at the sociolinguistic level on Italian spoken by migrants from Sri Lankans. Specifically, the aim is to describe and quantify the impact of phonetic features of Neapolitan and Campania regional Italian on migrants’ speech. Accordingly, the goal is to verify: a) whether and how migrants’ Italian is affected by such features at the segmental level; b) whether such an impact is due to specific sociolinguistic traits of the speakers, namely their gender, work activity, attendance at Italian classes, exposure to the dialect; c) along the main aims of the HELLO CAMPANIA! Project, whether there are statistically significant differences between first- and second-generation migrants.



## 5. Method

### 5.1 Participants

Participants selected for this study are Sri Lankan migrants of the first (G1) and second (G2) generation. As for G1, we selected 30 participants, gender-balanced (15 M, 15 F), who are on average 34 years old, all based in the city of Naples. They all arrived in Italy for either work reasons or family reunion (similarly to Spina 2013) in adolescence or adulthood and therefore considered as ‘late bilinguals’. The length of residence in Italy spans from less than a year to 34 years (on the average, 24 years).

The linguistic repertoire of the Sri Lankans G1 community was the object of previous studies (Di Salvo *et al.* 2024; Maffia, Cataldo & Di Salvo 2024). Results showed that all participants (n. 30) had Sinhalese as their mother language and Italian and English in the repertoire.

As for G2, we managed to select 18 participants (13 M, 5 F), who are on average 19 years. We included in this group both participants born in Italy and participants born in Sri Lanka and arrived in Italy in early childhood, i.e. before the age of 8. All G2 participants are born from non-mixed couples, i.e. both parents are Sri Lankans and Sinhalese and/or Tamil speakers.

In order to take the variables highlighted by Maturi (2016) into account, Table 1 reports personal and sociolinguistic data of participants, namely gender, age, education degree in the home country, current work activity in Naples, attendance to Italian classes or Italian schools and self-attested exposure to Neapolitan.

Table 1. List of participants

speaker	gender	age	home country education	work activity in Naples	Italian class	exposure to Neapolitan
SL1F01	F	27	high school	employee	yes	no
SL1F02	F	45	high school	domestic work	yes	no
SL1F03	F	46	high school	domestic work	yes	no
SL1F04	F	23	high school	student	yes	no
SL1F06	F	17	middle school	student	yes	no
SL1F07	F	41	high school	domestic work	yes	no
SL1F08	F	49	high school	domestic work	yes	no
SL1F09	F	38	high school	domestic work	yes	no
SL1F10	F	26	high school	domestic work	yes	yes
SL1F12	F	34	high school	domestic	yes	no

				work		
SL1F14	F	19	middle school	student	yes	no
SL1F15	F	23	elementary school	employee	yes	no
SL1M01	M	21	high school	unemployed	yes	no
SL1M02	M	21	elementary school	employee	no	no
SL1M04	M	45	high school	domestic work	no	no
SL1M06	M	29	high school	freelance	yes	no
SL1M07	M	58	high school	domestic work	yes	yes
SL1M08	M	44	high school	domestic work	yes	no
SL1M09	M	54	high school	domestic work	yes	yes
SL1M10	M	28	high school	domestic work	yes	no
SL1M11	M	49	high school	domestic work	no	yes
SL1M12	M	40	university	domestic work	yes	yes
SL2F01	F	16	no	student	yes	no
SL2F02	F	16	kindergarten	student	yes	no
SL2F03	F	16	no	student	no	no
SL2F04	F	33	no	employee	yes	no
SL2F05	F	18	no	student	Italian school	no
SL2M01	M	13	no	student	Italian school	no
SL2M02	M	20	no	student	Italian school	yes
SL2M03	M	24	high school	domestic work	yes	no
SL2M04	M	25	no	employee	Italian school	yes
SL2M05	M	17	elementary school	student	Italian school	no
SL2M06	M	17	no	student	Italian school	yes
SL2M07	M	17	no	student	Italian school	yes
SL2M08	M	17	elementary school	student	Italian school	yes
SL2M09	M	17	kindergarten	student	Italian school	yes
SL2M10	M	17	kindergarten	student	Italian school	yes
SL2M11	M	24	kindergarten	student	Italian school	yes
SL2M12	M	19	no	employee	no	yes
SL2M13	M	22	no	employee	Italian school	yes



## 5.2 Corpus

Data were collected through a (structured) sociolinguistic questionnaire, held in Italian or English. It is the case of migrants with extremely low competence in Italian who were not able to understand or to answer in Italian. Out of 30 G1 participants, 8 of them almost fully answered in English, so that those interviews are not included in the dataset. (Note 5)

The interview involved different sections in order to have information on migrant biography, migration background, ethnic and residential patterns, type of social network, language use, composition of migrants' repertoire and their ethnic identification. (Note 6) Sri Lankan participants were recorded in Naples. Data was collected at 44,100 Hz and 16-bit depth with a Zoom H4 recorder. The final dataset employed in this study, shown in Table 2, corresponds to 40 interviews for a total duration of about 16 hours of speech.

Table 2. Dataset

	n. interviews	n. token	duration
G1	22	34939	7h48m39s
G2	18	36562	8h10m03s
Tot.	40	71501	15h58m42s

## 5.3 Analysis

For this study 40 interviews were analyzed. Linguistic analysis was carried out using the Elan software (Sloetjes & Wittenburg 2008), allowing for multilevel annotations. Firstly, all interviews were transcribed by means of a simplified version of the orthographic transcription norms used for the Italian CLIPS project (*Corpora e Lessici di Italiano Parlato e Scritto*; Albano Leoni 2003; Savy 2006). Then, the orthographic level was tokenized.

The linguistic analysis involves the annotation of interferences, i.e. phenomena due to linguistic contact with Neapolitan and Campania regional Italian. Phenomena considered in this work are phonetic, while phenomena on other levels of analysis, namely morpho-syntax, are the object of other studies (see Di Salvo *forthcoming*). Among the peculiar phonetic features characterizing Campania varieties (see §2), we carried out a perceptive analysis by selecting mainly consonantal phenomena, since interview quality did not allow for a fine-grained spectral analysis for vowels; moreover, we did not select postlexical features such as *raddoppiamento fonosintattico*. Phenomena under analysis, summarized in Table 3, are:

- realization of /b/ and /dz/ in intervocalic position, e.g. *abito* 'I live' and *progetto* 'project', respectively, in order to verify the presence vs absence of strengthening;
- realization of /s/ following nasals, e.g. *penso* 'I think', in order to verify the affricate [ts] vs fricative [s] realization;

- realization of *-uo-* and *-ie-* diphthongs, e.g. *scuola* ‘school’ and *niente* ‘nothing’, in order to verify the mid low [wɔ] and [jɛ] vs mid high [wo] and [je] realization of vowels;

- realization of /s/ preceding consonants, e.g. *scrivo* ‘(I) write’, in order to verify the presence ([ʃ]) vs absence ([s]) of palatalization.

In order to explore the occurrence of such phenomena, each token of the interview that contained their context of occurrence was annotated according to the labels reported in Table 3. Figure 1 below provides an example of our Elan annotation.

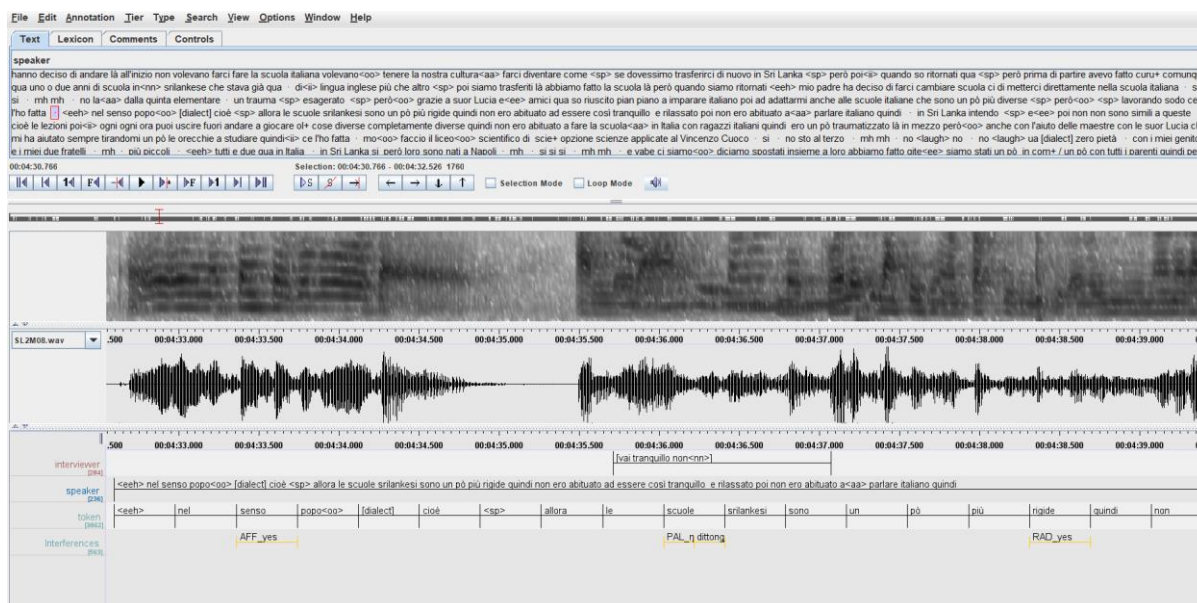


Figure 1. Elan picture exemplifying the orthographic transcription, tokenization, annotation and labels on Interferences level

Table 3. List of phenomena under analysis and the relative labels

Phenomenon	Realization	Label
Realization of /b/ and /dʒ/	Presence of strengthening	<i>streng_yes</i>
	Absence of strengthening	<i>streng_no</i>
Realization of /s/ after nasals	Affricate [ts]	<i>aff_yes</i>
	Fricative [s]	<i>aff_no</i>
Diphthong	Open diphthong	<i>diph_open</i>
	Closed diphthong	<i>diph_closed</i>
Realization of /s/ before consonants	Presence of palatalization	<i>pal_yes</i>
	Absence of palatalization	<i>pal_no</i>

We validated the annotation by calculating Cohen's  $k$  for inter-annotator agreement. The overall results, excluding unlinked and unmatched annotations, show that we reached what Landis & Koch identify as 'substantial agreement' ( $\kappa$ : 0.8649;  $\kappa_{\text{max}}$ : 0.9360. Landis & Koch 1977; Holle & Rein 2014).

We then carried out statistical analyses in order to verify the effect of sociolinguistic aspects as predictors of linguistic phenomena. Accordingly, sociolinguistic features (generation, gender, work activity, attendance to Italian classes, exposure to Neapolitan) (Note 7) were set as independent (categorical) variables, while linguistic phenomena as dependent variables; speaker was considered as random variable. Data analysis was performed using R (R Core Team 2021). A linear model *lm* (Note 8) was used to assess the effect of independent variables on phonetic dependent variables. The significance of the predictors was evaluated using p-values obtained from the model summary. Statistical comparisons between groups were conducted using estimated marginal means (*emmeans* package, Length *et al.* 2018) when necessary.

## 6. Results

This section reports the results of the study according to groups of Sri Lankan migrants: we first show G1 results, then G2 results, then we provide a comparison between the two generations.

As for the realization of /b/ and /dʒ/ in intervocalic position (Figure 2, top left panel), in G1 speakers, only few occurrences of /dʒ/ and /b/ strengthening have been found (n. 27), mainly realized by male participants, while the absence of strengthening is more frequently observed in both men and women (n. 133). No differences according to participants' gender were found as for the realization of /s/ following nasals as well (Figure 2, top right panel). Both groups in a very similar way present the affricate realization in about half of the instances (n. 44) with respect to the 'default' fricative one (n. 104). As for diphthongs (Figure 2, bottom left panel), G1 Sri Lankans present occurrences of open diphthongs (n. 59) mainly produced by female participants; on the other hand, closed diphthongs are largely more frequent in both groups, regardless of the gender (n. 538). As far as the realization of /s/ followed by consonants is concerned (Figure 2, bottom right panel), out of 500 occurrences, both male and female speakers realize /s/ as palatal in only few cases (n. 61) and more frequently as fricative [s] (n. 439). Statistical analysis highlighted a significant difference with respect to the presence *vs* absence of exposure to Neapolitan and Italian class attendance on palatalization. Linear model confirmed such effects indicating that first-generation speakers who attest to be exposed to Neapolitan tend to have higher values of *pal\_yes* with respect to speakers who don't ( $p = 0.009$ ); on the contrary, the attendance of Italian classes has an effect on the absence of palatalization of /s/ before consonants ( $p = 0.0003$ ). No effect of work activity was found to be significant, although the majority of speakers showing /s/ palatalization do domestic work in houses of Italian people, therefore they have close relationship with Italians with respect to G1 Sri Lankans who work in Sinhalese shops or bed & breakfast as receptionists, who mainly speak Sinhalese and English at work, respectively. It is worth mentioning that no occurrences of foreign speakers' overextension of palatalization

of /s/ in other contexts, e.g. before dental consonants (e.g., in *studio* ‘(I) study’), as reported by Pellegrino, Salvati & Vitale (2015), were found in our data. (Note 9)

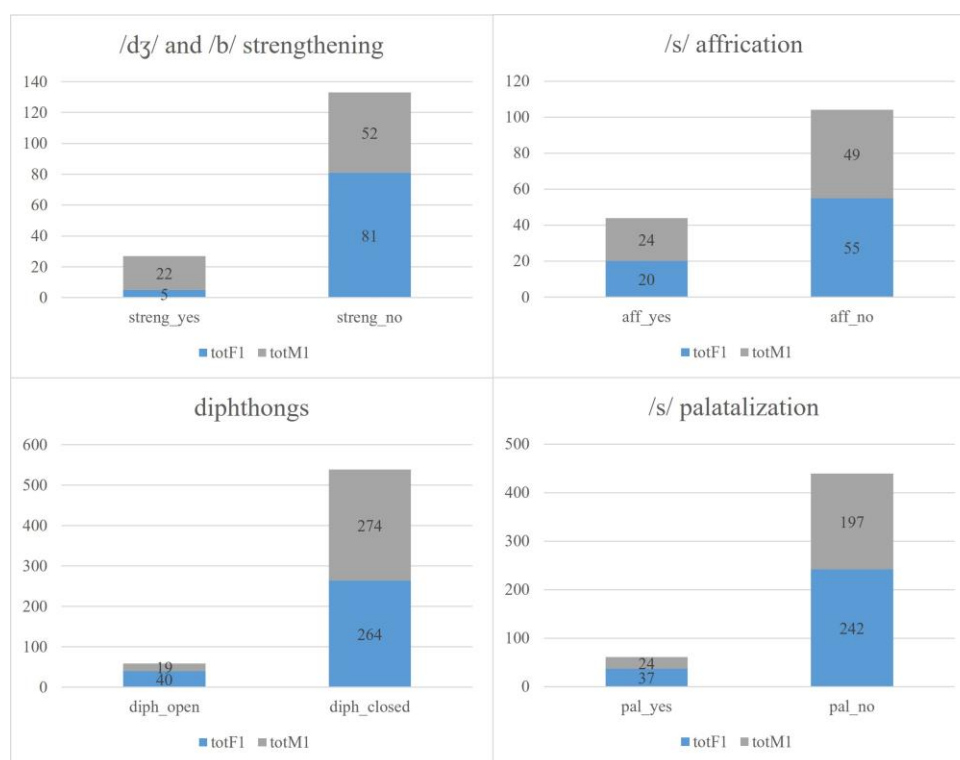


Figure 2. Realization (n. of occurrences) of intervocalic /b/ and /dʒ/ (top left), /s/ after nasals (top right), diphthongs (bottom left) and /s/ before consonants (bottom right) in G1 Sri Lankans' speech according to speaker gender (female: totF1; male: totM1)

On the whole, G1 Italian speech shows the presence of some features typical of Campania varieties, especially with regard to diphthongs realization. Only some sociolinguistic variables showed to have an effect on linguistic features, namely exposure to Neapolitan and attendance of Italian classes with regard to palatalization, hence no other sociolinguistic aspect, e.g. gender and work activity, works as a predictor of linguistic uses.

As for G2 results, it is worth underlining that G2 group is less balanced according to gender (it is composed by 5 female and 13 male speakers) but it is more homogeneous in terms of age and main activity, i.e. they are 19 years old on average and attend Italian high school. Given these factors, they have more direct and constant relationship with Italian people, i.e. Italian classmates, teachers and friends.

Strengthening of /b/ and /dʒ/ (Figure 3, top left panel) is very frequent (n. 148), especially in male speakers' productions, with rarer instances of strengthening absence (n. 38). In a similar way, with regard to /s/ after nasals (Figure 2, top right panel), only a few cases of fricative /s/ were observed (n. 14), while the vast majority of occurrences, in males' productions in particular, present an affricate realization (n. 216). Out of 667 total diphthong occurrences

(Figure 2, bottom left panel), G2 speakers produced a closed diphthong 663 times. Finally, as for /s/+consonant realization (Figure 2, bottom right panel), absence of palatalization was observed in 670 cases out of 679.

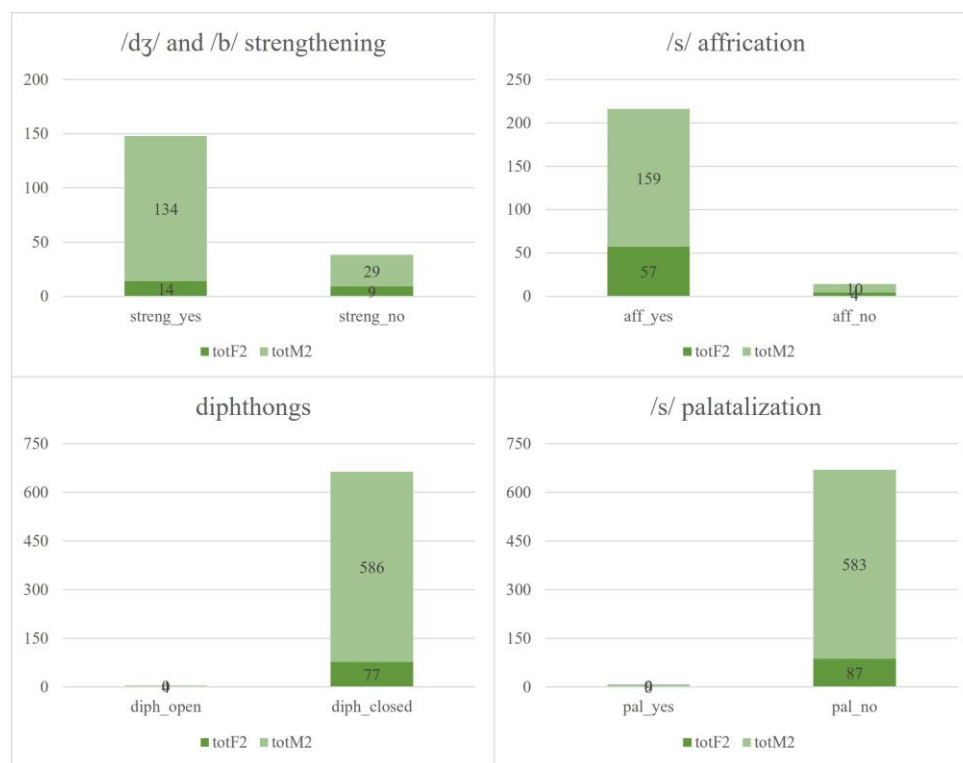


Figure 3. Realization (n. of occurrences) of intervocalic /b/ and /dʒ/ (top left), /s/ after nasals (top right), diphthongs (bottom left) and /s/ before consonants (bottom right) in G2 Sri Lankans' speech according to speaker gender (female: totF2; male: totM2)

G2 results show a significant intra-group consistency: as already said, G2 participants are all young students at Italian (high)schools but, although out of 18 participants 'only' 10 attested to have Neapolitan in their repertoire, this aspect appears not to play a role in affecting linguistic uses in Italian, namely the presence of Campania varieties traits in their speech. Quite the opposite: statistical analysis unveils a correlation between exposure to Neapolitan and pal\_no ( $p = 0.001$ ), so that exposure to the dialect has a strong significant effect on the absence of palatalization. Such a correlation might point to a strong awareness of G2 speakers who, besides their 'natural' exposure to Neapolitan due to their social network and everyday life and attendance to Italian high schools, avoid using palatalization. They show great homogeneity in tending towards (Campania) Italian native uses.

Speakers recruited for this study were homogeneous in terms of country of origin (Sri Lanka) and urban setting (all living in Naples), while they were differentiated according to gender, work activity, attendance of Italian language classes, inclusion of Neapolitan in the linguistic repertoire and generation. Taking together the two generation groups, the independent (sociolinguistic) variable that plays the strongest effect on phonetic phenomena is exposure to

Neapolitan, which positively correlates with *pal\_yes* ( $p = 0.004$ ), *streng\_yes* ( $p = 0.013$ ) and *diph\_closed* ( $p = 0.010$ ). Instead, the factor that played the major role in differentiating Sri Lankans is generation, confirmed by the multivariate analysis of variance (MANOVA) highlighting that generation has a significant effect on different dependent variables. Post-hoc evaluations helped in identifying between-groups (G1-G2) significant differences. Therefore, we dedicate this last part of results to a comparison between the two generation of Sri Lankans according to the four phenomena under analysis in this study. Results are summarized in Figure 4.

Realization of /dʒ/ and /b/ in intervocalic position appears to be a distinguishing feature between the two generations (est: -6.99,  $p = 0.0001$ ). It results in an inverted tendency: while G1 has a presence of strengthening in only 17% of cases, G2 has it in the vast majority of cases (80%). Similarly, the realization of /s/ following nasals as fricative observed in G1 (70%), is severely reduced in G2 (est: -10,  $p = 0.003$ ) achieving an almost exclusive use of affricate realization (94%). As for diphthongs, a certain continuity across Sri Lankan generations can be observed: the great majority of closed diphthongs in G1 (90%) becomes the exclusive use in G2 (99%) (est: 2.46,  $p = 0.021$ ). As regards the realization of /s/ followed by consonants, the few instances of palatalization found in G1 (12%) are reduced in G2, almost completely avoiding such a realization (1%); this G1-G2 difference is statistically significant as regards the absence of palatalization (est -17.3,  $p = 0.010$ ).

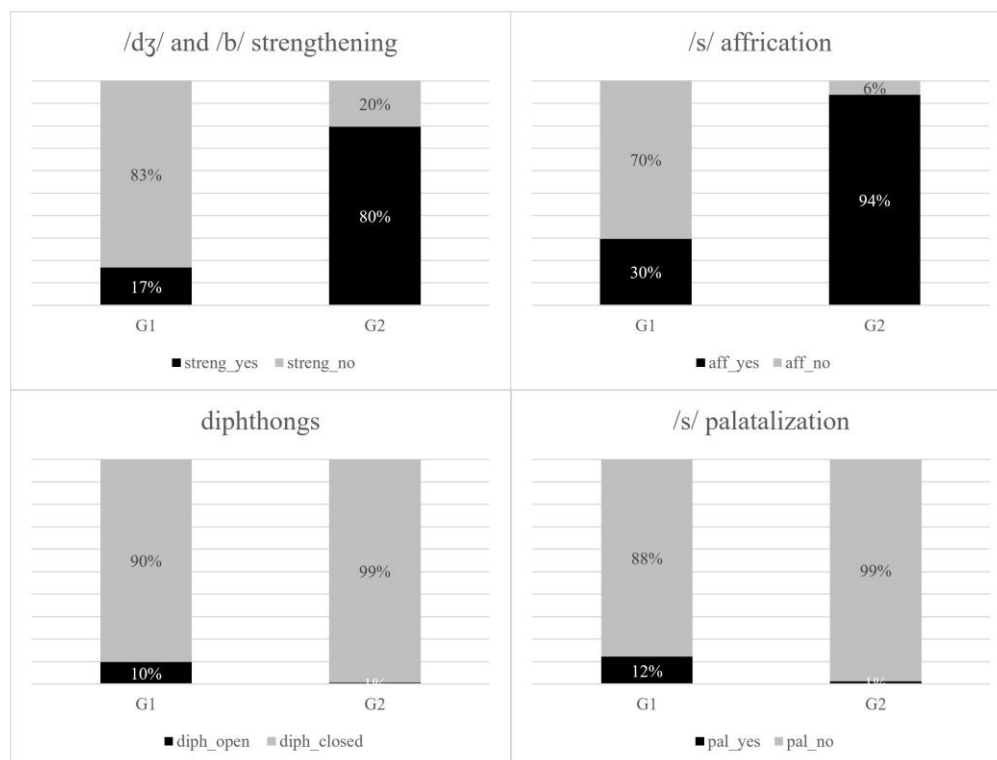


Figure 4. Percentages of realization of intervocalic /b/ and /dʒ/ (top left), /s/ after nasals (top right), diphthongs (bottom left) and /s/ before consonants (bottom right) in Sri Lankans' speech according to generation (G1; G2)



On the whole, the first three phenomena, i.e. strengthening of intervocalic /dʒ/ and /b/, affricate realization of /s/ after nasals and closed diphthongs, clearly increase across Sri Lankan generations; in G1 the ‘Campanian’ realization is somewhat weak, especially for intervocalic strengthening and /s/ affrication, while in G2 is largely adopted. The fourth phenomenon, i.e. the realization of /s/ followed by consonants, shows an opposite trend: indeed, it is the only case in which the ‘Campanian’ trait, i.e. palatalized /s/, is present in G1, although in a modest extent, and disappears in G2 (1% of cases).

## 7. Discussion and Conclusions

The present study had the aims of documenting Italian spoken by Sri Lankan migrants living in Naples and investigating features of the local varieties in first- and second-generation participants in order to verify whether migrants present specific phonetic Campanian/Neapolitan traits in their speech. Moreover, the study explored the correlation between linguistic phenomena and sociolinguistic aspects of migrants.

Results show an interesting and clear picture. Migrants in Campania face with linguistic plurality which is reflected in their Italian L3. Indeed, speakers of the first generation, although with different extent, present all the ‘Campanian’ traits investigated in this work, namely presence of intervocalic consonant strengthening, /s/ affrication after nasals, /s/ palatalization before consonants and closed diphthongs. Accordingly, first-generation speakers show a certain degree of awareness of the existence of linguistic variety, as already highlighted in Pellegrino, Salvati & Vitale (2015). As for Sri Lankan second generation, results show a more consistent realization of the phenomena under investigation in a Campanian way, reaching an almost exclusive use of affricated /s/, strengthened consonants and closed diphthongs.

The presence *vs* absence of /s/ palatalization is the only phonetic feature presenting an opposite trend across migrants’ generations. This phonetic feature has been proved to be related to sociolinguistic factors concerning the relationship between first generation Sri Lankans and Campania linguistic varieties. Indeed, both exposure to Neapolitan dialect, namely inclusion of Neapolitan within Sri Lankans’ linguistic repertoire, and participants’ attendance to Italian classes play a role in predicting the actual use of Neapolitan features, i.e. the presence *vs* absence of /s/ palatalization, respectively. Indeed, in first generation Sri Lankans a high degree of exposure to Neapolitan, i.e. familiarity with varieties in which /s/ is palatalized, correlates with the presence of palatalization, while the attendance to Italian classes correlates with the absence of this feature. Despite no significant effects played by other sociolinguistic factors taken into account, i.e. gender and work activity, our results confirm Maturi’s (2016) list of sociolinguistic variables affecting the acquisition/learning of foreign varieties by migrants. Indeed, both migrants’ attendance to Italian classes and the presence/absence of Neapolitan dialect within their linguistic repertoire are linked with the social network migrants have with Italian people, in both didactic and non-didactic contexts. On the other hand, exposure to Neapolitan for second-generation speakers, who actually have more constant and diverse exposure to a wider range of Campania varieties, including the dialect, affects the use of /s/ preceding consonants, leading to the absence of /s/ palatalization.

Given the presence of /ʃ/ sound, even followed by (plosive) consonants, in the phonological inventory of participants' first language, i.e. Sinhalese (Wasala & Gamage 2005), the presence vs absence of /s/ palatalization ([ʃ]) in first- and second-generation migrants' Italian speech, respectively, can be ascribed to two possible reasons. On the one hand, this is the only feature, among those considered in this study, that can occur in word-initial position (e.g. *scuola* 'school'), as well as in word-medial position (e.g. *conosco* '(I) know'). It might be the case that, with respect to other phenomena, this one is more likely to be under the control of the speaker; from another perspective, this can be read as an outcome of word beginning saliency principle (Beckman 1998). In this light, exposure to Neapolitan increases the presence of /s/ palatalization in the input migrants receive and the likelihood they would acquire and realize it in their Italian speech. Along these lines, we can underline that /s/ and /ʃ/ sounds in Italian are written in two different ways: the former is a *s* letter, while the latter corresponds to *sci* group of graphemes. It could be the case that second generation participants, all attending Italian schools and universities, and therefore possessing higher oral as well as written competence in Italian, are more aware of the differences between the graphic and phonetic form of such sounds. This might be partly supported by the effect of the attendance of Italian classes on the absence of palatalization, at least as far as first-generation speakers are concerned. These speakers receive a direct/formal teaching, also with the support of written material, and with a higher variety of Italian used by teachers during classes, hence with a context in which palatalization is avoided.

On the other hand, /s/ palatalization might be considered and/or perceived by speakers as more 'Campanian' or more 'Neapolitan' than the other ones. In this study data were collected through interviews conducted in informal settings by university researchers; as a result, we expect speakers to select a linguistic variety as close as possible to Italian (Maturi 2016). In the effort of selecting the higher variety within the repertoire during the interview, speakers tend to avoid forms felt more typical of the dialect (Maturi 2016). Accordingly, and possibly due to the saliency of /s/ palatalization, second generation migrants show higher linguistic awareness in avoiding such a feature.

In the light of the influence of the exposure to Neapolitan dialect, it appears that phonetic features of Neapolitaness/Campanianess observed in this study can be thought as arranged along a continuum revealed by linguistic choices of first- and second-generation migrants, from the least to the most Neapolitan as follows:

closed diphthongs < /s/ affrication after nasals < intervocalic /dʒ/ and /b/ strengthening < /s/ palatalization before consonants.

A partial confirmation of these steps comes from Radtke (1997) and De Blasi & Fanciullo (2002) reporting, among the other phonetic traits, /s/ palatalization as a strongly stigmatized trait, characteristic of low or very informal Neapolitan Italian. In this light, we can assume that first-generation speakers, despite their early awareness of the plurilingualism characterizing Naples and their attempt to select a high variety during interviews, are still not enough proficient to avoid features of the lower varieties. On the other hand, second-generation participants, even if more exposed and familiar with the dialect, are more

homogeneous in their linguistic uses and more capable of selecting a higher pole among the local varieties. Clearly, their deeper awareness might lead them to assimilate Campania native speakers' behaviors in selecting linguistic traits according to speech contexts; accordingly, they might be likely to exhibit higher traits in more formal settings, such as non-palatalized /s/ during the interview, and lower traits in more informal situations, such as palatalized /s/ in everyday conversations with peers, e.g. Neapolitan schoolmates in high schools.

These results call for future work to gain a more complete picture of migrants' speech within the Campania framework. Firstly, a perception study might be carried out to test how much Neapolitan/Campanian each of the investigated features is perceived by Campanian native speakers as well as by migrants. Another possible direction could aim at collecting migrants' speech in different contexts to unveil possible patterns of variation in high vs low variants selection.

In the frame of the HELLO Campania! project, the present study represents a first step to test the validity of the annotation system and to provide a picture of migrants' linguistic uses within the greater context of plurilingual Naples. Clearly, this work only took phonetic interference into account, but language contact in migrants' speech can be possibly observed and investigated under other levels of analysis, e.g. morpho-syntax and lexicon, and from other perspectives, e.g. code-switching patterns, as well. Future research will extend and enlarge this analysis to other ethnic groups, e.g. Ukrainian and Filipino group, in order to get a wider picture of different migrants facing with Neapolitan local varieties as well as inter-group comparison.

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## Notes

Note 1. [www.prinpnrrhellocampania.it](http://www.prinpnrrhellocampania.it)

Note 2. As for syntax, for instance, substitution of conditional with imperfect subjunctive (De Blasi & Fanciullo 2002), Differential Object Marking (Ledgeway, Schifano & Silvestri 2019), intransitive Italian verbs use in transitive constructions (Sornicola 1997).

Note 3. Actually, Italian spoken in Campania show intra-regional variation at the intonational level. The belonging of local varieties to different dialectal groups (Campanian *vs* Lucanian) is somewhat reflected in suprasegmental features of Italian spoken in different areas of the region, namely Neapolitan, Salerno and Cilento areas (Cataldo & Crocco 2023).

Note 4. Masullo (2023) investigated the ability of foreign learners to detect different regional Italian varieties including Campania Italian through a perception test. Participants' attendance to Italian L2 classes did not entail a better detection of regional Italian varieties.

Note 5. The Sri Lanka Collection as well as the entire corpus of HELLO CAMPANIA! Project are archived in the repository of the Eurac Research CLARIN Centre (Di Salvo *et al.* 2024).

Note 6. For further information, see Moro & Di Salvo (*forthcoming*).

Note 7. Among the factors highlighted by Maturi (2016), we did not consider a) the education level in the home country, since the majority of G1 speakers have completed high school in Sri Lanka; b) sociolinguistic characteristics of the home country, since it works in inter-groups comparison in future research within HELLO Campania! project; c) urban area, since all participants are resident in Naples. Moreover, we merged personal relationship possibly with Italian speakers with attested exposure to Neapolitan.

Note 8.  $\text{lm}(\text{pal\_yes} \sim \text{generation} + \text{gender} + \text{work\_activity} + \text{Italian\_class} + \text{Neapolitan\_exposure})$ .

Note 9. De Blasi & Fanciullo (2002) report palatalization of /s/ before dental consonants only in some Sannio areas.

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