

A preliminary contribution to the study of phonetic variation of /r/ in Italian and Italo-Romance

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Abstract

This paper aims at giving the first contribution to the phonetic description of the different realisations of /r/ in the present-day Italo-Romance languages spoken in Italy. It discusses a selection of phonetic phenomena observed in current use from a descriptive point of view and which have been confirmed in most cases by experimental evidence.

Descriptions are based on a sample of a thousand *r*-realisations from different speakers (of different origins and with idiosyncratic phonetic properties) and are offered in terms of ‘narrow phonetics’.

1. Introduction¹

In spite of the fact that the main sources of variability described in the Italian domain for these sounds are stylistic and – to a lesser extent – diatopic, very few details on them are generally given in sociolinguistic or dialectological studies. Behind the traditional dichotomy between an apical *r* vs. a uvular *r* (sometimes masked by general labels, which were used to describe quite different classes of sounds following the authors’ impressions) stands a typological vagueness which characterises not only large diffusion books, but also part of the scientific literature.

A symptom of the different considerations connected with *r*-pronunciation is the disagreement on the sociolinguistic status accorded to some *r*-sounds in phonetic studies. Even when the authors agree on their articulatory description, different opinions on the prestige status of dialectal variants clearly reveal the incomplete (and, more often, non-uniform) knowledge of the geographical and

¹ This paper reproduces some contents of the communication presented at *r-atics-2: 2nd International Workshop on the Sociolinguistic, Phonetic and Phonological Characteristics of /r/* (Université Libre de Bruxelles, 5-7 Dec. 2002).

social variability of these units within the Italian diasystem. By-passing the presence of a large number of interesting phenomena involving the realisations of /r/ and /rr/, significant emphasis is given to what is usually called *erre moscia* ('limp' or 'lifeless r') which is a simple way – as it has been underlined by some phoneticians (see Canepari 1979 and Mioni 1986) – to class together, in the same stereotyped category, more than ten phonetically different basic articulations.

For all these *r*-sounds, besides checking the supposed presence of uvular vibrations, we need a better articulatory description, including details about the place and the degree of constriction, the dynamics of vibrations (when really present), voicing properties, and so on.

This paper summarises the preliminary descriptive work I prepared in view of research I carried out in this domain from 1998 to 2003 and whose results showed that, besides a dependence on general patterns of temporal organisation, speakers have recourse to different strategies to obtain non-apical *r*-sounds by using the acoustic (and perceptual) effects of rapid changes in frequency patterns.

2. Rhotics' variability: functional principles, articulatory strategies and acoustic cues

Rhotics are a broad class of speech sounds whose articulatory and acoustic properties are renowned to be particularly speaker- and language-dependent (Stevens 1989:40). They are basically associated with apical trills, usually described as the central members of this class, but an enormous variety of other sounds can be found in various languages and dialects.

While phonetic modelling reveals that an efficient tongue-tip vibration depends on airflow, impedance, and appropriate apical control (McGowan 1992:2903; Widdison 1997:191), apical trills are also described as articulatory gestures with narrower aerodynamic requirements than other sounds (Recasens 1991; Solé 1999). That could be a valid reason explaining why they usually undergo all kinds of variation and why they are interesting for sociolinguistics (Labov 1972; various papers in Van de Velde & Van Hout 2001).

In the literature, trills are described as extremely fine articulations:

“Learning to make a trill involves placing the tongue, very loosely, in exactly the right position so that it will be set in vibration by a current of air. [...] The problem experienced by most people who fail to make trills is that the blade of the tongue is too stiff” (Ladefoged 1993:169).

In the past decades, Barry (1997) and Catford (2001) reopened the classical debate on the historical evolution of *r*-sounds in different languages.

Well-known case studies have been traditionally represented by French and German, whereas nowadays many other languages, including Italian, show interesting social dynamics involving *r*-sounds.

For standard Italian, the phonological starting assumptions are that an apico-alveolar phoneme /r/ contrasts in intervocalic position, following the consonant gemination pattern generalised in the whole system, with a geminate counterpart /rr/, whereas in other languages such as *RP* English or 'normative' French only one rhotic phoneme is synchronically acknowledged, with realisations respectively described as an alveolar approximant and a uvular fricative or approximant (or even a trill in some varieties; Demolin 2001)¹. A functional view allows us to assume that the sounds that realise the two phonological units in Italian are, therefore in both cases, apical trills with a different number of contacts².

Nevertheless, trills are not just series of taps: they are quite different from taps in that the body of the tongue is subject to a higher degree of constraint during the production of a trill than of a tap (Recasens 1991; Kavitskaya 1997).

As discussed in the present paper, in a number of Italian idiolects single rhotics are not trilled (a distributional analysis of /r/ and /rr/ allophones is in Canepari 1979, 1999; see §3)³. Acoustic cues associated with the articulatory properties of these allophones have been extensively analysed for the different languages where they are mainly attested (e.g. Meyer-Eppler 1959; Delattre 1966, 1971; Ladefoged et al. 1977; Hagiwara 1995; Schiller & Mooshammer 1995; Alwan et al. 1997).

With regard to their description in terms of timing, vibration frequencies and

¹ The real phonetic implementation of French rhotics is often disregarded in favour of a pretended diffusion of uvular trills. Ladefoged & Maddieson (1996:225) observe that "Uvular trills occur in some conservative varieties of Standard French and Standard German, although most speakers of these languages use uvular fricatives or approximants rather than trills". Results of a research (partially published in Billiez et al. 2002) which I presented at *r-aties-2* accounted for a fricative/approximant as the more common realisation for French /ʀ/.

² As a general reference, see Ladefoged & Maddieson (1996:218-219): "[i]n Italian, single and geminate forms of most consonants contrast in intervocalic position" and that "[t]he single/geminate opposition also applies to trills". In repetitions of the words *caro* and *carro* by five speakers of Standard Italian, they found none of the intervocalic single trills to have more than two contacts while the geminate trills showed no fewer than three contacts and up to seven (Ladefoged & Maddieson 1996:221).

³ In Romance languages, a distinction is usually made between 'polyvibrants' and 'monovibrants' without further defining different articulatory possibilities within these classes (this choice traditionally matches the two-way perceptual distinction proposed in Barry 1997:40 accounting for single-strike vs. multi-strike *r*-sounds). In Canepari (1999:101) we may find a finer classification for monovibrant *r*-sounds in Italian, where they are distinguished in two categories: *vibrati* (taps) and *vibratili* (flaps). Previously Mioni (1986:45) defined taps as *battiti* 'beats', and flaps as *scatti* 'triggers'. Even though taps and flaps are not elsewhere generally distinguished in the literature (see Barry 1997:38), a clear distinction is proposed by Ladefoged & Maddieson (1996:232).

dynamic properties (as they appear at an acoustic insight) one can refer to Ladefoged & Maddieson (1996:218), observing closed and open phases in the order of 25 ms each⁴.

Even the traditional timing for a single vibration in an intervocalic position is described in most varieties of Spanish and Italian as having a mean closure duration of about 20-25 ms (Vaggés et al. 1975; Quilis 1981; Contini 1983; Recasens 1991)⁵.

In their survey of Florentine students, Vaggés et al. (1978:3) showed that 7 speakers out of 10 realised /r/ as a monovibrant, 2 as a flap and 1 as a “multivibrant”⁶.

Concerning spectral distinctions between uvular and apical *r*-sounds, an interesting framework is provided for a number of languages in some traditional acoustic approaches (see for instance Jakobson 1957; Fant 1960, 1968; Delattre 1966, 1970)⁷.

3. Italian *r*-sounds

Concerning the actual status of Italian *r*-sounds, the literature is relatively poor. As partially introduced in §1, the main interest is devoted to *r*-variability in some geographical varieties and to the diffusion of defective variants known as *r moscia* to which, as far as I know, no instrumental study has been explicitly dedicated.

⁴ Temporal characteristics of trills are detailed in reference to studies surveyed in Ladefoged & Maddieson (1996:226). Measures for the mean vibration rate for trills are in the range 26-30 Hz. Though anatomically very different, bilabial, apical and uvular trills vibrate at similar frequencies. Ladefoged et al. (1977) proposed an explanation based on the compensation of the difference between the masses involved by a decrease in the articulators' tenseness.

⁵ In the examples given by Ladefoged & Maddieson (1996:231) for two tap realisations, the spectrograms show durations shorter than the mean duration I found in Italian single *r*'s by about 20 ms and 25 ms (see §3).

⁶ Mean duration and standard deviation of 25 ± 18 ms are reported for intervocalic *r* in repetitions of one word. Similar values are reported by Contini (1983) in his acoustic analysis of Sardinian “constrictives à battements” whose realisations are single-strike, with a typical duration of 20-30 ms, or multi-strike, with 2-5 interruptions of similar durations and an interrupted spectrum similar to the one of a central vowel (Contini 1983:414-415). In Vietti et al. (2009) 138 single-*r* postvocalic realisations are measured for speakers of 16 Italian cities in laboratory productions: a single-strike apical trill appeared in 38% of cases (a tap perhaps only in 6% of cases), with durations in the expected range (25 ± 6 ms). Another 5% are ‘smoothed’ taps, whereas 18.3% are ‘broken’ approximants and 6.7% are regular approximants; 7% was represented by single-strike apical trill with longer duration (31 ± 6 ms) with acoustic characteristics similar to those of a voiced stop. Velar, uvular and pharyngeal realisations (usually uvularised or pharyngealised alveolar taps) rank, mainly for northern speakers, up to 10%; a (somewhat lateralisated) flap is dominant for Venice speakers (6%), while vowel rhotacism and *r*-deletion are limited to a residual 5% of cases.

⁷ See details in Ladefoged & Maddieson (1996:226-231). In Romano (forthcoming), I support a general view of a vowel-colouring of *r*-sounds ([ɹ]-like when apical and [o]-like for back articulations) and suggest possible spectral dynamics for single-*r* variants.

A simplified description of the phonological Italian system basically assumes a phoneme /r/ and its geminate counterpart /rr/ whose phonetic realisations, as already discussed in §1, are both apical trills with a different number of contacts. In Canepari's traditional finer analysis, summarised in Canepari (1999:97-102), the phoneme /r/ is associated to both [r] and [r̄] (the latter mainly occurring in unstressed syllables). A detailed distributional analysis is given in the following passage:

“[N]ella pronuncia neutra odierna effettiva abbiamo, normalmente [r] in sillaba accentata: [(C/V)'rV-, 'CrV-, 'Vr:C(V),'V(:)r#] (oppure, solo come variante occasionale, non sistematica, e non enfatica, [r̄]). Mentre negli altri casi si ha [r̄]: ['V:rV, (V/C)(,) rV-, Vr-, -r(')C-] (oppure come variante possibile, specie per enfasi, [r̄]). Per /rr/ si ha: ['Vr:rV, Vr'rV, (,)VrrV, Vr(,)rV] (oppure anche [r̄:r̄, r̄r̄], soprattutto per enfasi)” (Canepari 1999:97-98)⁸.

Using an instrumental approach, I checked the examples proposed by Canepari (1999:328) (*raro* [ˈra:ro] < /raro/ 'rare', *parlare* [parˈla:re] < /parˈlare/ 'to speak', *Mario* [ˈma:rjo] < /ma:rjo/, *carro* [ˈkar:ro] < /karro/ 'cart', *Enrico* [enˈri:ko] < /enˈriko/) which presented various phonotactic solutions. The speech sample came from the tape associated with Canepari's handbook and the speaker was a professional male speaker with no particularly evident regional traits. Waveforms and spectrograms are displayed in Fig. 1 with the help of *WASP* (1.02).

⁸ An updated source is now provided by Canepari (2005).

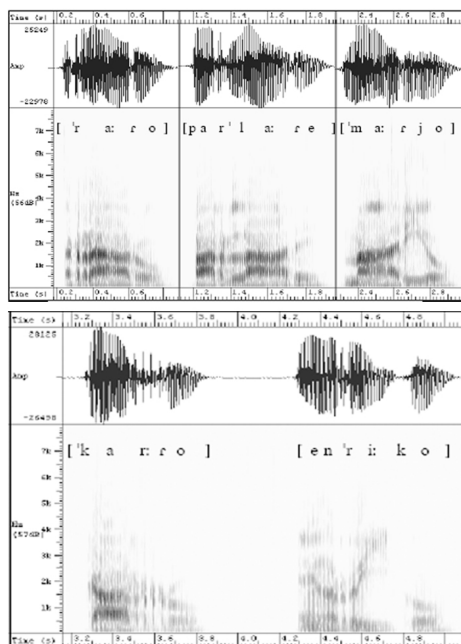


Figure 1 – Waveforms and spectrograms (obtained with the program *WASP*, thanks to M. Huckvale, *UCL*) showing standard Italian pronunciation for /r/ in the words (by a professional male speaker, see Canepari 1999): (upper row) *raro* 'rare', *parlare* 'to speak', *Mario* '(person's name)'; (lower row) *carro* 'cart', *Enrico* '(person's name)'.

Taps appear only in the positions allowed by a phonetic reduction rule. Their realisation is restricted to the intervocalic unstressed position or to the 'explosive' phase of /r/.⁹ Nevertheless they may have a closing phase longer than 50 ms which is slightly (and suspiciously) higher than the one usually measured for taps in other languages (see §2)¹⁰. Other /r/ realisations (such as the coda /r/ in the first unstressed syllable of *parlare* and the onset of the stressed syllable of *raro* and *Enrico*) are not single-strike sounds and are realised with a 2÷3-strike trill against the longer 5-strike trill realising /r/.

⁹ According to Rousselot (1913:53): "L'r double se comporte donc comme les autres consonne redoublées qui, doubles pour l'oreille, ne sont, au point de vue articulaire, que des consonnes simples fortes et longues", but these sounds lead to a phonetic distinction: "La 1re r entendue est une r implosive ; la 2e, une r explosive" (ibid.). In agreement with Canepari's distributional scheme, as it is shown farther further in this work, this assumption for Italian, does not contrast in principles, with Inouye's (1995) generalisation of a phonetic length feature as for the relationship between trills and taps, which remains valid for languages without geminate/singleton contrasts.

¹⁰ As shown by some extensive studies (Vaggies et al. 1978; Ferrero et al. 1979), Italian apical r's are resistant to coarticulatory effects of neighboring sounds (for apical trills in general, see Lindau 1985).

Regional varieties of Italian follow the same distribution, with intervocalic single rhotics realised as single-strike sounds¹¹. On the basis of a number of items I analysed in spontaneous dialogues for different varieties (variously disposed to tap spreading in other phonotactic contexts, see Romano, forthcoming), I observed that single-strike *r*-sounds tend to preserve a higher tension in the vowel-to-consonant transition than the one usually accounted for languages described as tap-languages (cp. Vietti et al. 2009).

4. (Not only) Back *r*-sounds in Italian

While the term *grasseyé* is nowadays used in French to refer to a variety of non-apical sounds, the general category for Italian *r*-sounds differing from the vibrant sounds described as standard is traditionally labelled *r moscia* ‘limp or lifeless *r*’; (see §1).

As shown by some phoneticians (see Canepari 1979; Mioni 1986), limp or lifeless *r*-sounds are in reality quite different articulations which have been gathered in order to denote defective or snobbish pronunciations.

People using a different kind of *r* are euphemistically said to have a French *r* (*r alla francese* or, simply, *r francese*) even when these sounds have nothing to do with the French *r*-pronunciation. Other common expressions to indicate a burrer are just *ha la erre* ‘(s)he has the *r*’ or, in some cases, *non ha la erre* ‘(s)he does not have the *r*’. In other cases the *r*-pronunciation is not lifeless at all (e.g. the case of long uvular trills) but the label *r moscia* is extended to them by some informants. On the other hand, I encountered the term of *r pizzicata* ‘pinched *r*’ which is also used in some regions with regard to this sustained but even ‘different’ pronunciation.

In the literature there is disagreement on the sociolinguistic status of such *r*-sounds because different opinions are expressed on the prestige status of idiolects which contain these sounds. This reveals an incomplete (non-uniform) knowledge of the geographical and social variability of this phenomenon in Italy. As is also remarked in Ladefoged & Maddieson (1996:226), Ladefoged et al. (1977) described a uvular trill appearing in Italian in a prestige dialect (but, since there is no clear-cut social differentiation for these sounds, idiolects must have been considered)¹².

¹¹ Inouye (1995) demonstrated that intervocalic tapping of trills is widespread crosslinguistically (in this case only as realisations of a single consonant).

¹² Traditional dialects described as having uvular *r*-sounds are in northern areas (almost exclusively north-western dialects or in the bilingual areas in the North-East, on the boundary with German-speaking countries) but there is no particular reason to consider them as prestige dialects. Indeed, individual burrers have been identified everywhere in villages from North to South where specific burring styles are widespread and are sometimes promoted as markers of local socio-geographical identity.

Chambers & Trudgill (1998:191) write about a “uvular /r/ only in some educated speech” but even that description does not reflect the real Italian situation, where the usage of this kind of *r*-sound is still considered (as it was for French in the past centuries, see above) a pronunciation defect or, in some cases, a symptom of snobbery and affectation, more than ‘education’.

In most cases the sounds labelled as *r mosce* are even considered as ‘pathological’. A similar position is expressed by Widdison (1997:189), who includes Italian back *r*-sounds among the cases of “deviation from the norm” (and this applies not only to northern Italian).

Canepari (1999) includes them, among pronunciation defects, in a detailed articulatory classification (sometimes making use of finer non-IPA phonetic notations):

“[C]’è una certa varietà d’«erre mosce» usate in italiano per caratteristiche individuali. Ci sono quattro tipi uvulari sonori, rispettivamente: vibrante [...], costrittivo [...], approssimante [...] e vibrato [...]. [ʀ] è il tipo normale in lingue come il francese belga, [ʁ] in tedesco, [ʁ] in francese; [ʀ] è un suono piú debole, che può ricorrere come variante occasionale. [...] Altrove, comunque, possono essere piú o meno diffuse in tutte le regioni [...]. Un altro tipo piuttosto frequente d’« erre moscia » è l’approssimante sonoro labiodentale [ʋ] [...] che, nella variante uvularizzata [ʋ̥], suona rivoltantemente snobistico in italiano” (Canepari 1999:98)¹³.

In fact, rather than being prestige variants, different types of *r mosce* appear everywhere, even in rural areas and in lower socio-economic conditions, and are often considered to be a pronunciation defect. Barry (1997) remarks that the apical *r*-pronunciation is simply something that a number of speakers in any country just cannot produce:

“In Italy and Spain, and Bulgaria, where trilled and/or flapped lingual «Rs» are de rigueur, efforts are made at primary school level to help children with problems. A good proportion do indeed achieve the goal, but there are always «pathological» cases which have to resort to e.g. a «labial R»” (Barry 1997:38).

¹³ Referring to *r moscia*, the author gives very useful phonetic details when he observes that these sounds “in italiano di solito si accompagnano anche a una struttura sillabica caudata piú «strascicata» /VC/ [‘V·C] (invece di [‘VC:]).” Furthermore, a better account of the conditions in which these pronunciations appear is in the following passage: “Non raramente alcuni tipi d’« erre moscia » sono usati volontariamente come degli *xenofonemi* stilistici, parlando in italiano, anche se spesso i risultati sono ridicoli e insopportabili. Di solito, l’erre moscia dà un’impressione d’affettazione” (Canepari 1999:99-100).

Some concessions are made by Mioni (1986) who gives a reduced list of possible *r*-variants and writes:

“Tutti questi foni sono possibili sostituti di /r/ in patologia anche se l’uvulare [ʁ] è così ampiamente diffusa tra gli italiani, che ci si può domandare se debba ancora essere considerata come deviante” (Mioni 1986:46, n. 27).

A more tolerant opinion is expressed by Canepari (1999):

“[I]n alcune zone d’Italia la realizzazione più diffusa per /r/ è uvulare [ʁ ʁ ʁ], che localmente può essere considerata quasi il tipo « normale », mentre l’articolazione alveolare diviene minoritaria; si tratta dell’Alto Adige, della Val d’Aosta e di buona parte della provincia di Parma” (Canepari 1999:101)¹⁴.

However, if I were to give an estimate of the quantity of *r moscia* pronunciations in (mainly urban) northern Italy, I would probably say that surely less than 10% of speakers systematically resort to this kind of (various) pronunciation (perhaps more than 10% only in Piedmont and in the Parma province)¹⁵.

As for the Italian back *r*-sounds, the origin of the irregular presence of these pronunciation styles is rarely investigated (Migliorini 1992:485 reports a source of the 17th c. referring to a French-style imitation).

High society French models have traditionally been described as the origin of the diffusion of back *r*-sounds in various central and northern European languages (see, among others, Chambers & Trudgill 1998), but several authors quoted in Van de Velde & van Hout (2001), Van de Velde et al. (2013) and Sankoff & Blondeau (2013), claimed an older and independent origin for different areas (e.g. Holland and the Rhineland). The theory of the French back-*r* spread could be valid for some Italian areas but other hypotheses cannot be excluded¹⁶.

¹⁴ For a ‘normal’ diffusion of uvular *r*-sounds in the area of Parma see Canepari (1999:387; also see a few comments at p. 381, about a possible diffusion in northern Lombard provinces, cp. Rohlf’s 1966:377). A socio-phonetic survey of *r*-sounds in the Parma province is now presented in the first section of Felloni (2011).

¹⁵ On the contrary, I would probably establish a definite upper threshold for French back-*r* pronunciation standing everywhere over 90%. This should give an idea of the difference between the two situations.

¹⁶ Fundamental contributions have been given by Bonnard (1982) who collected elements to show that the back *r* is a creation of a high socio-economic class and dates back to a period between the 15th and 17th c. The change took place as a consequence of the raising of the tongue dorsum towards the velum (with or without flapping of the uvula). This kind of explanation is adopted in Delattre (1966:207). The French *r* shift is interpreted by this author as the consequence of a language-dependent articulatory constraint. Carton (1974:164) seems to go in the same direction accounting for an effect of “vocalic anticipation” but concludes in favour of a social explanation. Nevertheless, the same stands for Italian (or Spanish) where the trill is even considered articulatorily complex (Francescato 1970:75-76), and is often replaced by /l/ or uvular sounds by some children at the first stages, but nothing stops the acquisition of the apical trill which progressively asserts among various allophones.

In the evolution of the Italian language and of Romance dialects spoken in Italy, a significant number of different phenomena, related to sound changes and derivational processes, involved rhotics. Besides the alternations inherited from Latin, and general properties related to liquids in Romance dialects, various outcomes are usually described (see Romano 2008 for details).

In present-day Italian, according to Canepari (1999:101-102), one should take into account at least the following *r*-variants as typical realisations in some regions, even though some speakers may have recourse to other choices.

A single-strike articulation is widespread in northern areas in almost all the contexts (even as a /*rr*/ realisation in conservative accents) but, in association with velar, uvular or pharyngeal realisations described above, Piedmont, Aosta Valley and part of Emilia-Romagna and Lombardy have an apical trill usually uvularised [ʀ] [...] whereas in Liguria an alveolar uvularised tap [ɾ] seems more frequent (see §2).

Among the most interesting regional *r*-sounds there are north-eastern alveolar approximants and taps which are generally lateralised (and therefore they really sound as liquid-*r*'s). In Venice the most common *r*-realisation is a postalveolar (somewhat retroflex) flap tending to show lateralisation (see above; cp. with retroflex flaps studied in Kvale & Foldvik 1995). These sounds realise /*r*/ in almost all the positions, often violating the general scheme illustrated in §3¹⁷. Slightly different varieties of these sounds can be heard in coastal areas of Tuscany (on the Tyrrhenian coast; see Romano, forthcoming).

In particular, I would like to emphasise that these *r*-variants are rarely perceived as marked and are usually attributed to a regional 'accent'. These sounds could be described as a kind of more retracted retroflex approximant (something like a [ɹ̠]) and occur as a realisation of /*r*/ in internal coda position or as the implosive phase of /*rr*/. They are particularly evident in stressed syllables in casual speech¹⁸. In Sicilian and southern Calabrian, word-initial *r*'s traditionally undergo a

¹⁷ I shall transcribe these sounds with [r], [ɹ] and [ɾ] respectively. Canepari's definitions are often more fine-grained and need additional special symbols (Canepari 1999:101, 401). As far as I have been able to observe, the voiced alveolar approximant (not lateralised) described by Canepari (1999:102), as is common in Apulia, is attested with some limitations around Bari and in speakers of Albanian origins (on the contrary, the voiced alveolar fricative tap introduced accounting for the Italian *r* pronunciation in northern Calabrian may have a wider extension in southern Italy). Other places where liquid-*r*'s are *de rigueur*, as already introduced, are south-western Piedmont (with the [r], usual around Frabosa, and [ɹ], between Pamparato and a wider area in the Asti province, which determine varieties of those *r*-sounds known as *r monferrina*; see Cabiale 1970, and Ghia 2010). Similar sounds are typical for some conservative *patois* speaker from Salbertrand (in the Turin province) and other Alpine areas on the border (Briga Alta). Western varieties in the same valleys are renowned for using a different *r*-sound known as dental *r* (or, more locally, *valsusina r*) whose realisations oscillate between [ʀ] and [z].

¹⁸ In his description of the dialect of Rossano (province of Massa), Rossi (1974:413) defines a postalveolar [r], but [i]-like vocalic component are highlighted in some *r*-transcriptions given by Rohlfs (1966) for Pisan and Ligurian varieties (see Giannelli, 1983; Pacini, 2004). A critical overview on palatalised rhotics is offered by Hamann (2002).

lengthening process - initial long trills are frequently realised as cacuminal (or retroflex) fricatives. Most of these pronunciations are also common in the speech of conservative speakers when they speak their regional Italian¹⁹. Moreover, in the same regions, *-tr-* and *dr-* are subject to affrication, yielding to postalveolar stops or affricates (e.g. Sic. *ṭṛenu* vs. It. *treno*)²⁰.

Apical trills devoicing is also widespread in non-standard central and southern Italian pronunciations and is usually disregarded in the specific literature (examples are collected by Canepari 1999:440, 445, 447)²¹.

5. Other (pretended) back *r*-sounds

In spite of the common idea that *r moscia* is a uvular *r*, the most common defective *r*-sounds are labiodental approximants [ʋ] (often velarised [ʋ̠])²².

Similarly, pretended French *r*'s in Italian speakers are nowadays uncommon in French.

Northern Italian speakers using a back *r* do not all have recourse to the same kind of articulation, but use significantly different varieties. Here is a simplified list of the most common possibilities (also possible everywhere in Italy):

¹⁹ According to Canepari (1999:102), in these regions (plus Sardinia), word-initial /^htr/ is replaced by /^hrr/. In Sicily and southern Calabria, this is then realised, in the more conservative accents, as a voiced alveolar or postalveolar fricative/approximant sometimes transcribed as [ʀ] which is obviously neither [z] nor [ʒ] (nor their weakened counterparts). Missing fundamental information on tongue sulcalisation, I usually simplify the transcription of these sounds, assuming postalveolar (retroflex) fricatives and approximants as basic sounds (for a review on retroflexion see Bhat 1974). In unpublished research carried out in 2007 I made several measurements on realisations of this type collected by Vito Matranga within the archive of audio-recordings available in the ALS. These approximants, fricatives and affricates show different degrees of fronting or cacuminalisation (see Matranga 2007).

²⁰ Note that the *tr-* cluster after *s-* undergoes anticipatory assimilation too (*-str-* > *-sʃ-* > *-ʃ-*). The general phenomenon (also attested for Sallentinian varieties, see Romano 1999) is well-described in Italian phonetic literature (since Millardet 1933) and a number of articulatory possibilities are specified for Calabrian dialects by Romito & Belluscio (1996), Soriano & Mancuso (1998) and others (see Romano & Gambino 2010).

²¹ The devoicing process is mainly attested in coda position before voiceless consonants where speakers of these varieties hyperarticulate *r*-sounds with an increase in the tension of the constriction (and slight retraction of the articulation place) by producing [ʀ̥] and/or [ʀ̥̠].

²² E.g. some Piedmontese speakers presenting the labiodental approximants [ʋ], when not suppressing the sound, tend to articulate the clusters /pr-/ and /br-/ in particularly prominent positions, respectively as [p̠ʀ̠] and [b̠ʀ̠] (maybe only single-strike). That seldom happens even for Piedmontese speakers with uvular trills (similar sounds mark the pronunciation adopted for the Italian voice of the Warner Bros' cartoon character Roger Rabbit who utters [p̠]/[b̠] in the realisation of initial *pr-/br-* clusters). Another example is the stereotype given by the actor Totò for the Neapolitan snobbish *r moscia* which is realised as a dental approximant (something like [ʋ̠] or [ʒ̠], see footnotes above). Finally, I shall mention here the example of a professional speaker of the regional Piedmontese TV News of the National Broadcaster RAI, who frequently lets the tip of his tongue come out from the mouth while speaking (occasionally showing linguo-labial contacts). This phenomenon systematically appears during the production of the clusters *-rt-*, *-rd-*, *-rl-* and *-rn-*, all normally including apico-alveolar contacts, replaced by predorso-alveolar contacts. They are probably induced by a preceding interdental approximant gesture (something like [ʋ̠]), which is the common *r*-sound for this speaker.

- (1) speakers using a velar fricative [ɣ] also present the unvoiced variant [x] and the approximant variant [u] in the appropriate contexts (mainly the unvoiced in voiceless consonant context and the approximant between vowels);
- (2) speakers preferring a uvular articulation may present trilled variants [ʀ] with one or more strikes (weakened forms of these sounds are fricative/approximant variants [ʁ] or [ʁ̥]) and unvoiced allophones in voiceless contexts ([ʀ̥] / [χ]); following the same distributional rule that could be observed in French)²³;
- (3) speakers occasionally resort to less controlled post-uvular articulations (the same speakers of the other points above may be subject to these alternations) which could give rise to [ʁ̥], [ʁ̥̥], [ɦ] and many variants, often appearing as simple [ɐ]-like sounds in positions where a weakening is likely to take place (generally in coda) or where a reduction gives rise to vocalic glides (between vowels);
- (4) speakers presenting labialisation and/or multiple articulation places use many other variants for velar and uvular *r*-sounds (see above);
- (5) people affected by *r moscia* (that is a more or less velarised/uvularised labiodental approximants) tend to occasionally allow the back articulation to prevail or to realise simple wavings between vowels, sometimes even yielding to no gesture traces at all.

6. Conclusions

In the present study, general topics have been discussed in reference to historical and present-day representations of *r*-sounds in the Italian linguistic domain which are affected by quite different sociophonetic dynamics.

In the first part of the paper, I have illustrated the normal basic realisations of /r/ ([r̥], [r] and [rː] for Italian), its distribution and phonetic reduction rules. In Italian, singleton vs. geminate contrasts are generalised in the phonological system: /r/ and /rː/ are associated with different phonetic realisations often reinterpreted in different regional varieties on the grounds of the underlying dialectal systems. Nonetheless, the main source of *r*-variability is in social preferences and in first-language acquisition difficulties.

In the second part of the paper, I have discussed the wide range of possible slightly different realisations of apical rhotics and of their back variants, by highlighting the need for a better articulatory account (testing the presence vs. absence of palatalisation, lip-rounding and secondary articulations, as well as

²³ A number of other possibilities arise for speakers not respecting this 'natural' distribution, then generalising for instance [x] in all the positions or extending the allophones to both /r/ and /rː/ (by neutralising the contrast). I would like to draw attention to the case of a southern area (northern Apulia) where, among a number of speakers using [ɣ] and [x] or [ʁ] and [χ] as common variants of pinched *r*, one may hear some people only using the voiceless variants in phonetic contexts where they are not usual, thus being distinguished from the rest of the community (see Romano, forthcoming).

of concomitant gestures and conditioning effects on the surrounding sounds). Several varieties of unusual *r*-sounds have been surveyed, ranging from limp or lifeless *r*'s to pinched *r*'s and liquid *r*'s.

With regard to the socio- and geo-linguistic situation, several characteristics have been identified. These may help to determine different kinds of *r moscia* on the grounds of the phonetic distinction proposed in the recent rhotics' literature on rhotics between trilling-variants as opposed to waving-variants.

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