

A Regular Rule of Palatalisation for Italian Verbs
& how base-derivative faithfulness creates a lexical gap

1. Introduction. Italian has a palatalisation rule transforming velar stops /k,g/ to affricates [tʃ,dʒ] if followed by a front vowel /i,e,e/. When stem-final /k,g/ is followed by a suffix-initial /i,e/, the observed palatalisation is not uniform for either nouns (Giavazzi 2012) or verbs. (1a) shows normal palatalisation, (1b) shows underpalatalisation, where the rule fails to apply before a trigger vowel, and (1c) shows overpalatalisation, where the rule applies before a non-trigger vowel. Suffixes *-o* & *-i* are 1 & 2P.SG.:

- (1) a. *viŋko* ‘I win’ b. *pago* ‘I pay’ c. *pjatʃo* ‘I please’ (cf. *pjakwi* - ‘I pleased’)
 vintʃi ‘you_{SG} win’ *pagi* ‘you_{SG} pay’ *pjatʃi* ‘you_{SG} please’

Variance in the application of the rule at the stem-suffix boundary is the result of a base-to-derivative relationship (Benua 1998) that holds between an inflected verb form and its infinitive.

2. Overpalatalisation & -ere verbs. In a development to Steriade’s (2001) P-Map hypothesis, I propose that the prominence of stressed segments in a base may cause their features to be carried over into derivatives. Thus, in Italian, segments in inflected verbs are faithful for stridency *when that same segment is stressed in the infinitive*. A new, specific faithfulness constraint models this, along with two others:

- (2) ID(STRID) / ó (BD): Stressed segments in the *Base* (infinitive) retain stridency in the *Derived* form
 *KI: Penalise velar stop - front vowel sequences

ID(STRID) (IO): Segments in the *Input* must match for stridency with *Output* correspondents

Consider first *-ere* verbs, the only Italian verb family with alternating infinitive stress (Davis et al. 1997). In *‘vintʃere’*, stress does not fall on the relevant segment, so base-derivative faithfulness is not invoked, and the verb’s derivatives palatalise normally (3). For *‘piatʃere’* though, the strident is stressed and so must be retained in derivatives, even when suffixed by a non triggering vowel (4):

(3)

/viŋk+o/	ID(STRI) / ó (BD)	*KI	ID(STRI) (IO)
☞ <i>vín.ko</i>			
<i>vín.tʃo</i>			*!
Base = Inf: <i>vín.tʃɛ.re</i>			

/viŋk+i/	ID(STRI) / ó (BD)	*KI	ID(STRI) (IO)
<i>vín.ki</i>		*!	
☞ <i>vín.tʃi</i>			*
Base = Inf: <i>vín.tʃɛ.re</i>			

(4)

/pjak+o/	ID(STRI) / ó (BD)	*KI	ID(STRI) (IO)
<i>pjá.ko</i>	*!		
☞ <i>pjá.tʃo</i>			*
Base = Inf: <i>pja.tʃɛ.re</i>			

/pjak+i/	ID(STRI) / ó (BD)	*KI	ID(STRI) (IO)
<i>pjá.ki</i>	*!	*	
☞ <i>pjá.tʃi</i>			*
Base = Inf: <i>pja.tʃɛ.re</i>			

As verbs ending [-tʃ/dʒere] are rare, I present results of wug-verb experiments on stress assignment and conjugation of verbs with these endings. Results show that, as above, speakers assign stress to the initial syllable when heavy, then palatalise normally (*‘fól.tʃɛ.re’* → *fól.ko*, *fól.tʃi*), or otherwise assign penult stress and overpalatalise (*‘po.tʃɛ.re’* → *pó.tʃo*, *pó.tʃi*). Thus, palatalisation as derived above is productive.

3. Faithfulness to ± stridency. The analysis extends to all regular verbs ending *-are* & *-ire*. These verbs always have penultimate stress. For *-are* verbs, eg. *‘pagáre’*, a stressed stem-final [-strid] segment blocks palatalisation (5a). However, if the relevant segment is [+strid], it is retained in derivatives: *‘lantʃáre’* (to throw) → *lantʃo*, *lantʃi*. Most *-ire* verbs use an infix *-isk-* which may cause palatalisation (though see §5), but those that do not, eg. *‘cutʃíre’* (to sew), show overapplication due to a stressed [+strid] segment (5b):

(5) (a)

/pag+i/	ID(STRI) / ó (BD)	*KI	ID(STRI) (IO)
☞ <i>pá.gi</i>		*	
<i>pá.dʒi</i>	*!		
Base = Inf: <i>pa.gá.re</i>			

(b)

/cuk+o/	ID(STRI) / ó (BD)	*KI	ID(STRI) (IO)
<i>cú.ko</i>	*!		
☞ <i>cú.tʃo</i>			*
Base = Inf: <i>cu.tʃi.re</i>			

4. Irregular verbs. I consider too inflected verbs with a stem-final /k,tʃ/ not present in the infinitive, eg. ‘díre’ (to say). With no base correspondent palatalisation depends on the lower ranked constraints:

(6)

/dik+o/	ID(STRI) / ǒ (BD)	*KI	ID(STRI) (IO)
☞ dí.ko			
dí.tʃo			*!
Base = Inf: dí.re			

/dik+i/	ID(STRI) / ǒ (BD)	*KI	ID(STRI) (IO)
dí.ki		*!	
☞ dí.tʃi			*
Base = Inf: dí.re			

5. A lexical gap. The cyclic nature of BD-faithfulness creates a lexical gap in Italian. Palatalisation in inflected verbs depends on the phonology first deriving palatalisation in the infinitive, but at this earlier stage palatalisation can only be regular. As bases, infinitives have no base of their own - palatalisation simply follows from the infinitive suffix: *-are*, *-ere*, or *-ire*. As such, there are no morphologically simplex Italian infinitives ending [-k/gere] or [-k/gire]. This logical possibility is unexplainable under a phonology-blind stem-listing analysis (Pirelli & Battista 2000). Note, however, that *-ire* can be used as a suffix to create verbs from adjectives or nouns, eg. ‘bjaŋkire’ (to whiten) from ‘bjaŋko’ (white). In this case however, palatalisation is blocked because these infinitives remain faithful to a nominal or adjectival base. Note that once these verbs are inflected, they now show underpalatalisation before the infix *-isk-*.

(7)

/bjaŋk+ire/	ID(STRI) (BD)	*KI	ID(STRI) (IO)
☞ bjaŋ.kí.re		*	
bjan.tʃi.re	*!		*
Base = Adj: bjaŋ.ko			

/bjaŋk+isk+o/	ID(STRI) ǒ (BD)	*KI	ID(STRI) (IO)
☞ bjaŋ.kís.ko		*	
bjan.tʃís.ko	*!		*
Base = Inf: bjaŋ.kí.re			

6. The question of bases. Following Albright (2002), I assume that the infinitive acts as base because it is a morpho-phonologically informative member of the verbal paradigm. Specifically, it aids in selection of agreement suffixes. Infinitives are the only form to maintain contrast across Italian’s four conjugations:

(7)

Infinitive suffix	Conjugation pattern	Infinitive suffix	Conjugation pattern
Stressed <i>-áre</i>	Regular <i>-are</i> conjugation	Stressed <i>-ére</i>	Regular <i>-ere</i> conjugation
Stressless <i>-ere</i>	Irregular <i>-ere</i> conjugation	Stressed <i>-íre</i>	Regular <i>-ire</i> conjugation

An inflected verb looks to its infinitive when deciding which form of an agreement suffix to apply. Consider 3p.pl pres., which has two spellouts. An *-áre* infinitive indicates spellout as *-ano*, while all other suffixes cause spellout as *-ono*. Regarding *-ere* verbs specifically, variance in infinitive stress predicts whether the past participle form is regular or irregular, eg. ‘tatʃére’ → ‘tatʃuto’, but ‘vínʃere’ → ‘vinto’.

The base of derived verbs seems to be selected according to the verbalising suffix. The *-ire* suffix above never causes palatalisation, but another relevant suffix *-izzare* (corresponding to English *-ise/-ize*) may. The base form for ‘bjaŋkire’ must be a non palatalising form, eg. M.SG., but palatalisation before *-izzare* alternates according to the M.PL form: ‘lírítʃi_{M.PL}’ (lyrical) → ‘lírítʃizzare’, but ‘antíkí_{M.PL}’ (antique) → ‘antikizzare’. Giavazzi (2012) shows palatalisation in the plural is blocked in an immediately post-stress syllable. Further work will attempt to explain why base selection differs by suffix, and consider how this analysis of verbal morphology may be linked with Giavazzi’s analysis of nominal morphology.

7. Conclusion. Italian verbal morphology is derived in cycles. Infinitives are derived early and obey markedness constraints, but they invoke correspondence that later creates exceptionality and a lexical gap.

References. Albright, A. 2002. *The identification of bases in morphological paradigms*. UCLA. Ph.D // Benua, L. 1998. *Transderivational identity: Phonological relations between words*. Amerhst. Ph.D. // Davis, S., L. Manganaro & D.J. Napoli. 1987. Stress on Second Conjugation Infinitives in Italian. *Italica* 64.3. American Association of Teachers of Italian. 477-498 // Giavazzi, M. 2012. Stress Conditioned Palatalization in Italian. *Phonology*. // Pirrelli, V. & M. Battista. 2000. The paradigmatic dimension of stem allomorphy in Italian verb inflection. *Rivista di Linguistica*, 12.2. 307-380. // Steriade, D. 2001. *The Phonology of Perceptibility Effects: the P-map & its consequences for constraint organization*. Ms UCLA