

Assignment 3, due class 1 of week# 4
Italian length

(1) Background:

- (a) Italian has no contrast between long and short V's but contrasts long (geminate) and short C's. (Long C's spelled double: *tt* etc.)

e.g. *Vito* (proper name) vs. *vitto* 'food'

- (b) Syllables are closed by 1st half of long C's.

e.g. *vitto* divided as *vit.to*

- (c) Long C's occur between vowels or after V and before glide or r:

e.g. *specchio* [spek.kjo] 'mirror'
quattro [kwat.tro] '4'

- (d) But not elsewhere.

e.g. **ttupido*, **questto*

- (e) Most words end in V and have penult or antepenult stress:

e.g. *amico* 'friend', *fratello* 'brother', *regalo* 'gift', *propósito* 'purpose'

(2) The problem data

- (a) Stressed V's lengthen in open syllables:

amico *regalo* but *fratello* *forno*
 [a.'mi:.ko], [re.'ga:.lo] [fra.'tel.lo], ['for.no]

- (b) This can cause alternations:

regalo *regalare* 'to make a present'
 [re.'ga:.lo] [re.ga.'la:.re]

- (b') There is no other circumstance in which vowels can be long.

- (c) In some contexts, the final V of a determiner deletes when followed by another word within its phrase: if stressed, the preceding V surfaces short.

e bello 'is beautiful' [E 'bel.lo]
bel giardino 'beautiful garden' ['bel dZjar.'di:.no]

nessuno 'noone' [nes.'su:.no] but
nessun gatto 'no cat' [nes.'sun.'gat.to], *[nessu:n'gat.to]

(d) A few words have stress on final V, which never lengthens
cittá 'city', *caffé* 'coffee' *parló* 'spoke' [tSit.'ta], [kaf.'fe], [par.'lo]
 *[tSit.'ta:], *[kaf.'fe:], *[par.'lo:]

(e) In general no vowel can be long at the end of the word.

(f) Final stressed V's cause a following C to geminate (lengthen)

<i>cittá pulita</i> 'clean city'	[tSit.'tap.pu.'li:.ta]
<i>caffé serale</i> 'evening coffee'	[ka.'fes.se.'ra:.le]
<i>cittá triste</i> 'sad city'	[tSit.'tat.'tris.te]
<i>parló bene</i> 'spoke well'	[par.'lob.'be:.ne]

(g) But word-initial s-stop clusters do not geminate: rather *s* resyllabifies

<i>cittá sporca</i> 'dirty city'	[tSit.'tas.'por.ka]
<i>parló spiegando</i> 'spoke explaining'	[par.'los.pje.'gan.do]

(h) Word initial clusters are: stop-liquid, f-liquid and s-stop-(liquid)

There are infrequent initials of other sorts (*pn, gn, pt, ks, ps*) but their behavior has not been systematically studied.

(3) **Your task:** to provide an analysis of the distribution of long and short V's and C's in Italian.

(4) **A beginning:** here are the elements of a rule-based analysis, the best I could come up with. You can beef it up or substitute a different one if it seems better. Whichever one you adopt, check out what derivations the analysis leads to and what properties of Italian it does explain.

(a) Assumption about UR's: Italian underlying representations contain no long V but there are both long and short C's in UR, in line with the fact that the length is contrastive for C's but not for V's.

(b) Assumption about syllables: ph-representations contain syllable boundaries.

Context notation: end of syllable is $_]_{\sigma}$
 beginning of syllable is $_{\sigma} [_$
 end of stressed syllable is $_]_{\sigma!}$

(c) 1st rule, **Vowel Lengthening**

V -> V:/ $_]_{\sigma!}$ or equivalently $[+syll] \rightarrow [+long]/ _]_{\sigma!}$

(d) 2nd rule, **Vowel Truncation**

V -> $\emptyset / _]$ determiner X]phrase, where $X \neq \emptyset$

(this says that a determiner loses its final V if it's not in phrase-final position)

If V-Truncation, a phrasal rule, follows V lengthening, a word rule (on the assumption – which you can debate or ignore - that rules apply over progressively wider domains) then a shortening rule is needed:

(e) 3rd rule **Vowel Shortening**

V: -> V/ _C]σ

(f) 4th rule **Resyllabification**

V]σ!]word word[σ[s stop -> Vs]σ!]word word[σ[stop

(g) 5th rule **Gemination** (traditionally called: *radoppiamento sintattico*)

V] σ!]word word[σ[Ci -> VCi] σ!]word word[σ[Ci

(5) **Your task:** assume that the markedness conditions below are motivated and formulate an analysis of vowel and consonant length in Italian that predicts the observed alternations/distributions from the existence of these markedness conditions. Note that not all the conditions can always be satisfied by the same representation: some pairs conflict.

(a) **If a syllable is stressed then it is heavy.**

(Heavy syllable: closed syllable or containing a long V or diphthong)

(b) **No final long V.**

(c) **Long C occurs only in the context V_V or V_[+son, +cont] (glide or r)**

Formulate an analysis of the Italian V-lengthening and gemination/resyllabification data in which changes between UR and SR are motivated by the constraints in (a)-(c).

(7) **Two ways:** your analysis can go:

(i) you can use the constraints in (a)-(c) to **motivate the rules** you need (in the sense of Sommerstein's paper). If you go this route, explain exactly what is the contribution of the constraints to your analysis: how the analysis is simpler or better in some other way because you're invoking the constraints.

(ii) or you can eliminate the rules altogether by adding an additional class of conditions provided below in schematic form

The UR is identical to the SR with respect to property P
(P can be the values of a feature, the order of segments, etc.)

and by ranking the constraints relative to each other.