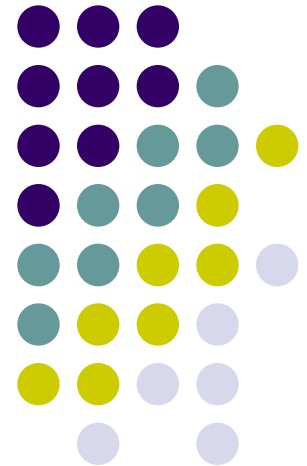


As time goes by ... it's still the same  
old story.

# Aspiration and Velarization of /f/ in Argentine Spanish

Natalia Mazzaro  
*CLA 2005*



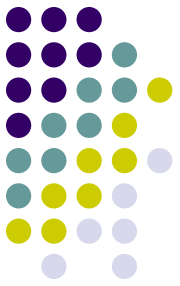


# Three allophones of /f/

/f/:

- [ɸ] before [ɔ]: [ɸɔerte];
- [h] before syllabic /o u/ (i.e. not [ɔ]): [horno] < FURNU;
- [ɸ] elsewhere (includes non-back vowels, the glide [ɛr], [ɔ], [l]): [ɸarina], [ɸjiera], [ɸrido].

# /f/ was deleted from most words (Penny, 1991)



(1)

- [f]igo > [h]igo > [Ø]igo ‘fig’
- [f]arina > [h]arina > [Ø]arina ‘flour’
- [f]ornu > [h]orno > [Ø]orno ‘oven’

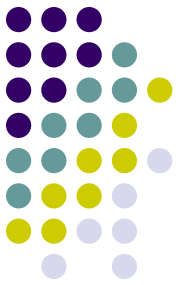
(2) Except for:

- In[f]ernu > in[f]ierno ‘hell’
- [f]ronte > [f]rente ‘forehead’
- [f]orte > [f]uerte ‘strong’



# The problem

- This shift was observed in the change from Latin to Castilian (from X to XV century)
- Synchronic alternation in several Latin American varieties (Penny, 1991; Quilis, 1993)
- It has been reported in various non-Romance languages: German, Hausa, Korean (Cho, 1991)



## /f/ has four different realizations:

f → [f] / \_\_\_\_\_ V (a)

1. [f]amília

f → [x] / \_\_\_\_\_ V (o, u)

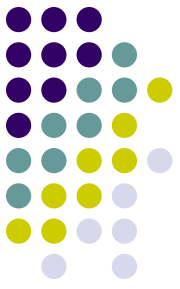
2. [x]orma

f → [h] / \_\_\_\_\_ V (i)

3. sacri[h]icada

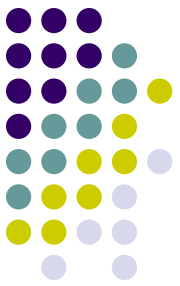
f → [∅] / \_\_\_\_\_ V (e)

4. [∅]estebamos



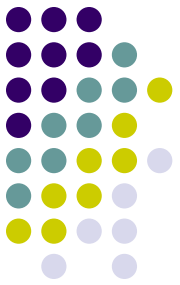
# Goal of this study

- To study in detail the synchronic alternation in Corrientes Spanish (change in progress)
- To provide a phonological account of the phenomenon



# The hypotheses

- The debuccalization process is triggered by the OCP constraint that disallows two consecutive segments bearing the same feature [labial].
- It starts with /u/
- It is extended to the other labial vowel /o/ and to the front vowels (/i e/)



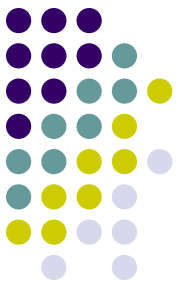
# Dissimilation rule

(1) /f/ → [h] / \_\_\_\_\_ V [-low]

# Fortition rule

(2) [h] → [x] / \_\_\_\_\_ V (u o)



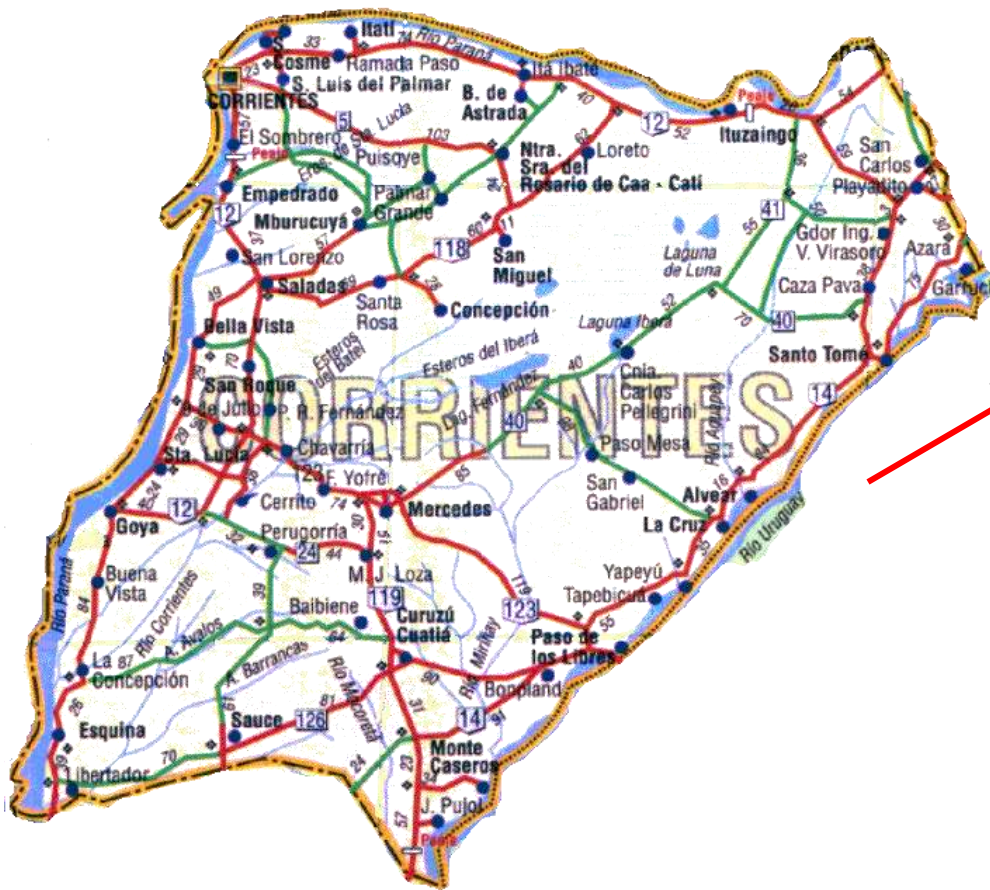
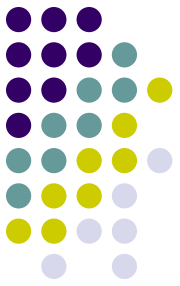


# The data

- Three sociolinguistic interviews (June/July 2002)
- Native speakers of Corrientes Spanish
- The interviewees: 2 men: José (50) and Miguel (31), and 1 woman: María (71)

# Corrientes

# Argentina





# Results

*TABLE 1: percentage of [f], [h], [x] and [Ø] according to following vowel for all the speakers*

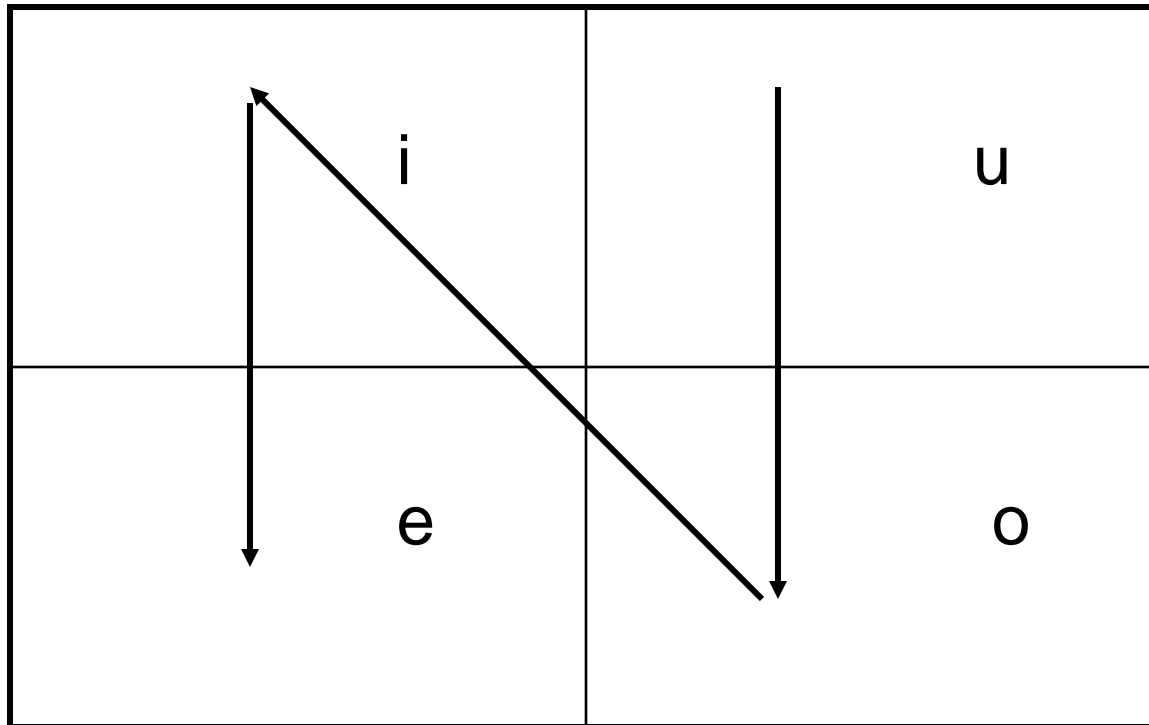
	<b>[f]</b>		<b>[h]</b>		<b>[x]</b>		<b>[Ø]</b>		<b>Total</b>
	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	
<b>_ a</b>	100	39							39
<b>_ e</b>	86	18					14	3	21
<b>_ i</b>	90	38	10	4					42
<b>_ o</b>	85	17			15	3			20
<b>_ u</b>	30	35			70	81			116

# The debuccalization process



1. Occurs with the [-low] vowels /e i o u/
2. Seems to originate with the labial vowel /u/
3. Gets extended to the other labial /o/
4. Spreads to the front vowels, where it affects the high vowel /i/, then
5. Moves down to /e/

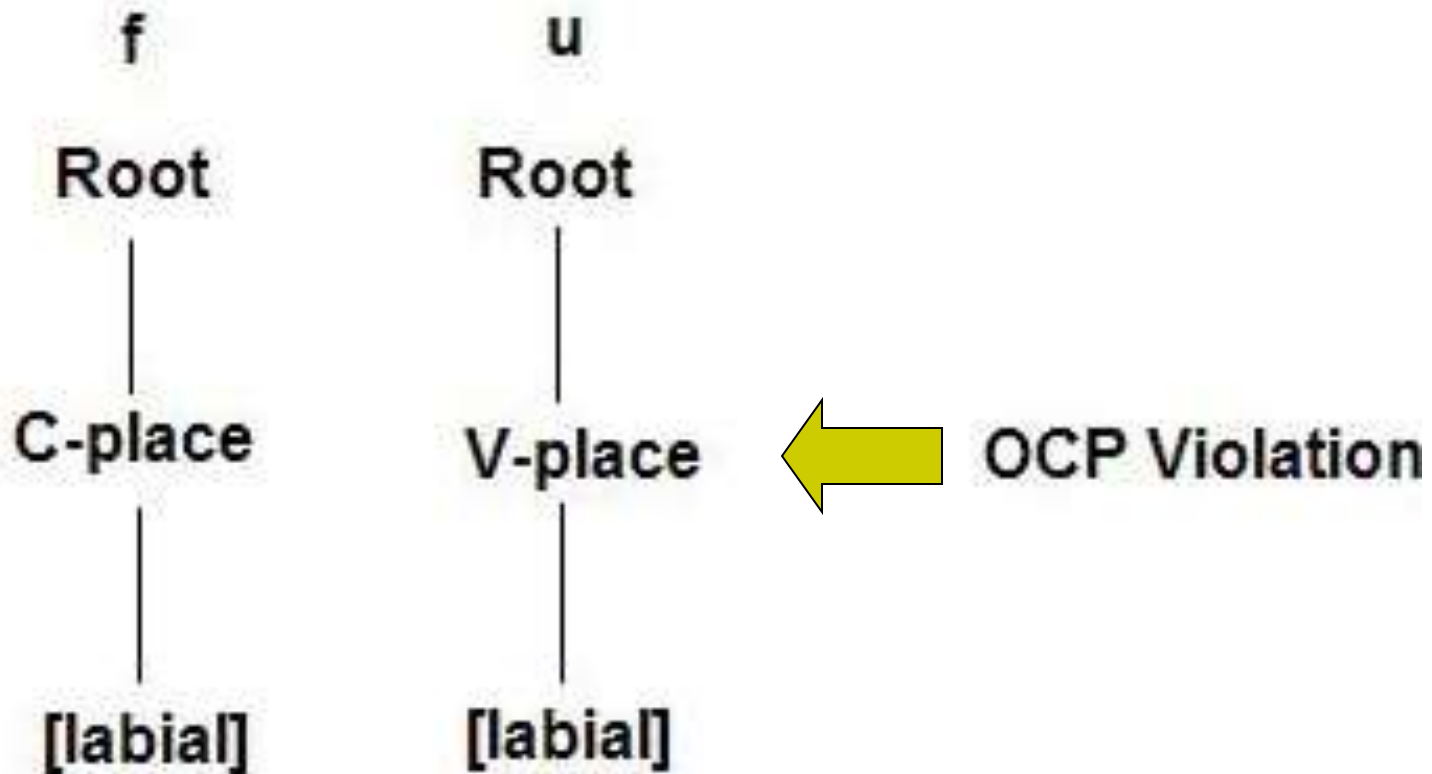
# The directionality of the change

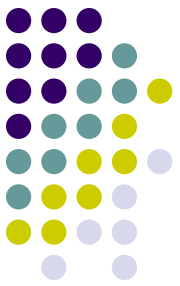


# What is the trigger of dissimilation when /f/ is followed by the back vowel /u/?

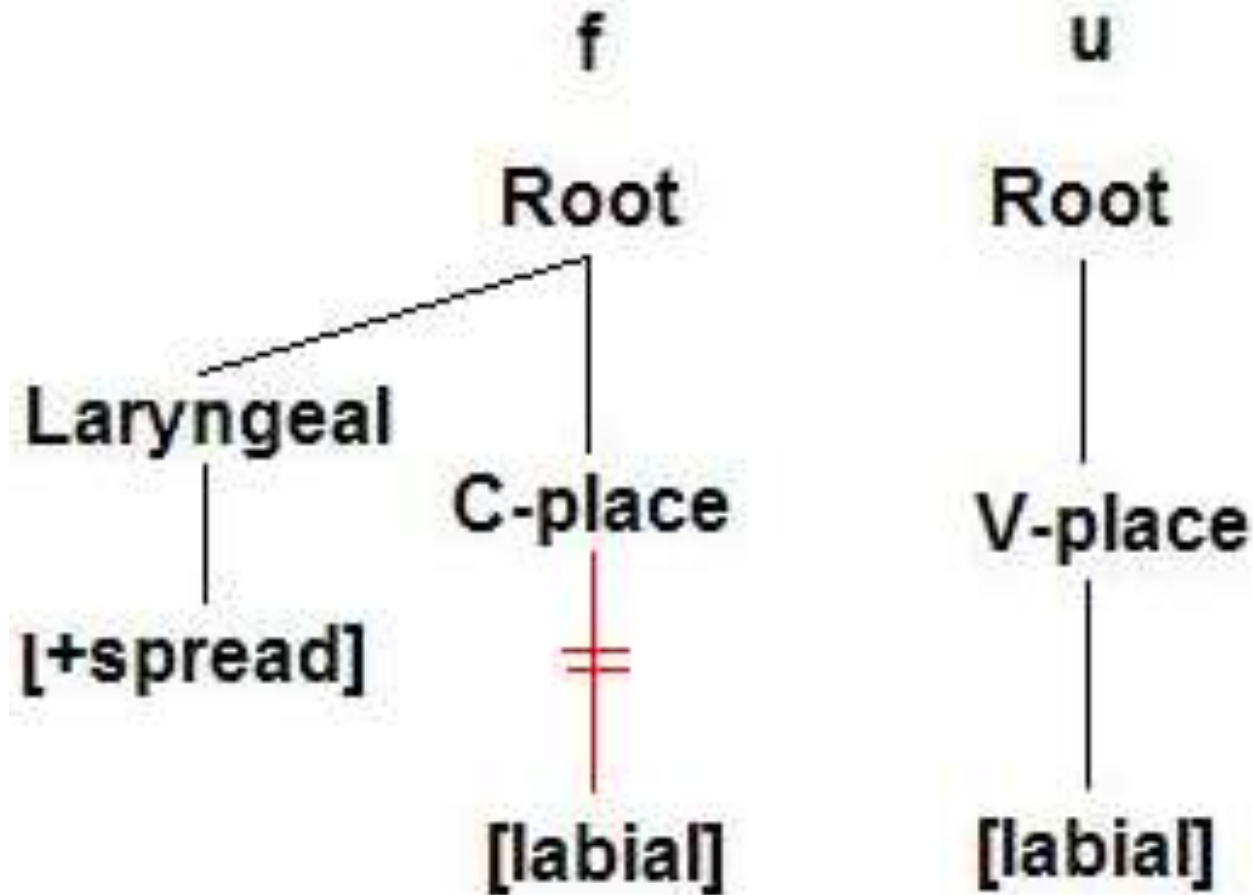


The OCP constraint that prohibits two “adjacent identical elements” (McCarthy, 1988).

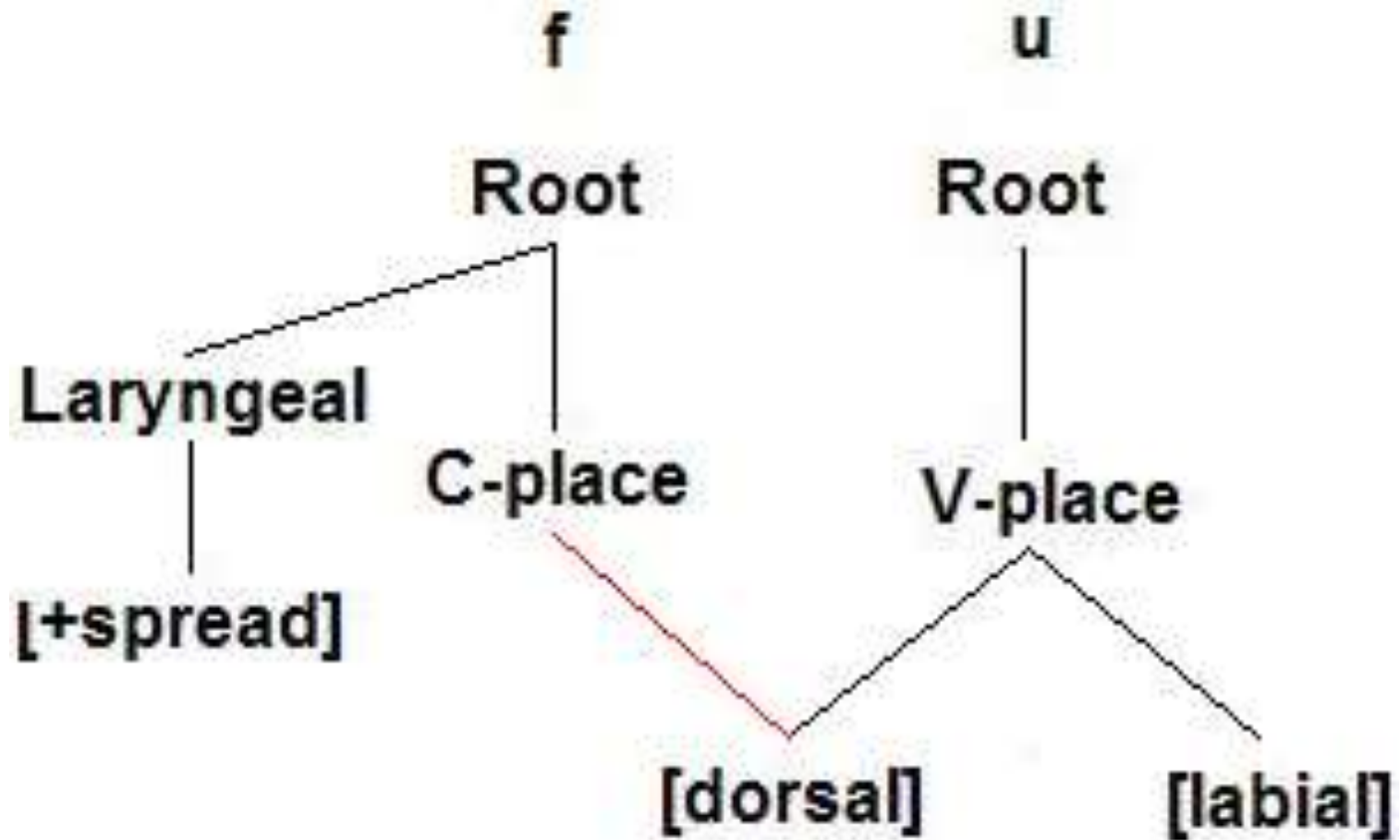
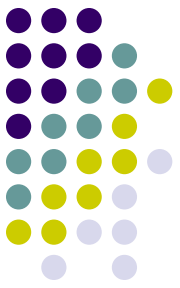




# 1. Delinking of place node

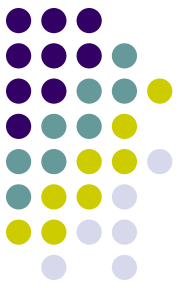


## 2. Spreading of [dorsal] feature



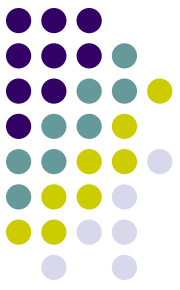


# What triggers the change of /f/ when it is followed by the front vowels /i e/?

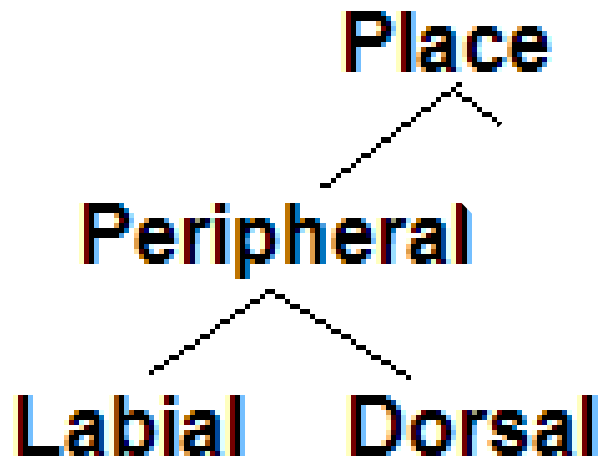


- The dissimilation process that debuccalizes /o/ and the front vowels /i e/ is an extension of the same rule that debuccalizes /u/.
- It cannot be the result of an OCP constraint, since the place features of /f/ and /i e/ are not identical, /f/ is [labial] and /i e/ [coronal].

# Why is there no spreading of the [coronal] features of /i e/ onto the preceding delinked segment?



- Rice and Avery (1991): the [coronal] feature for consonants is underspecified, that is, it is not present in the representation, but inserted by means of a default rule in the phonetic implementation.

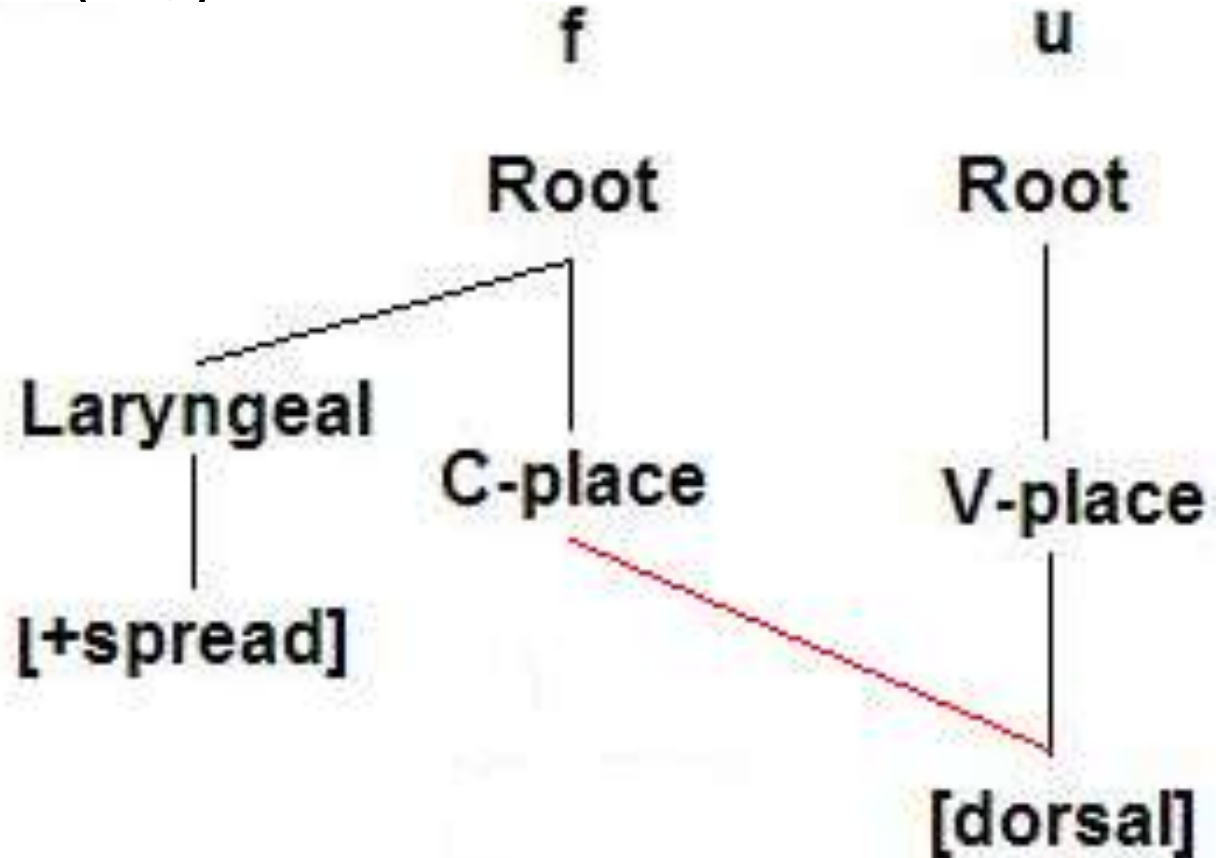


# Alternative proposal – Velarization



- Assimilation

[f] → [x] / \_\_\_ V (o u)

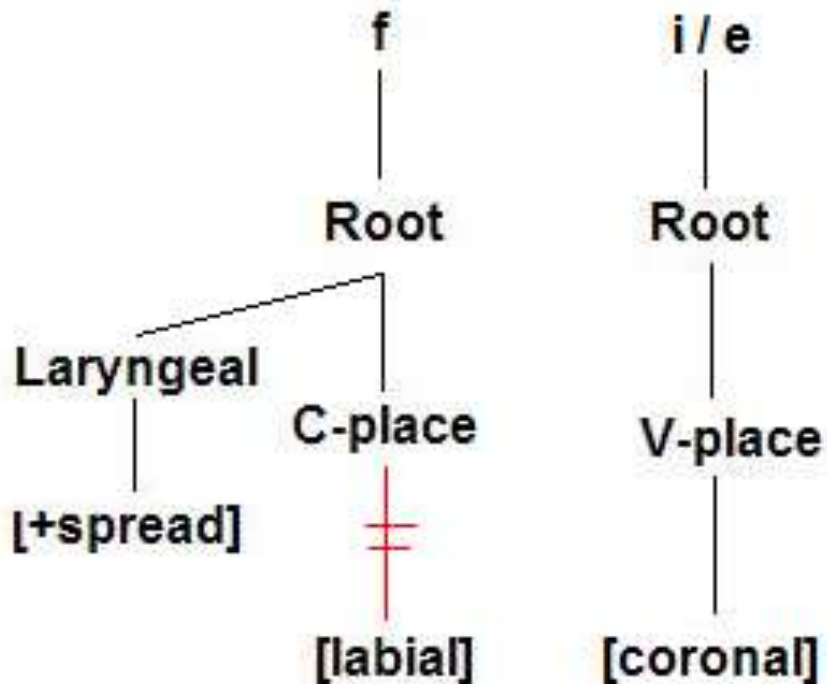


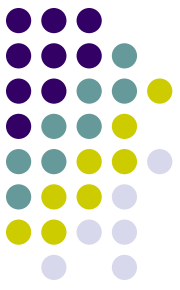


# Alternative proposal (cont.)

- Aspiration

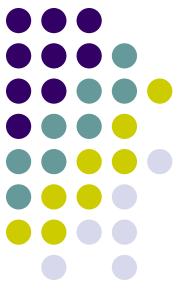
1) [f] → [h] / \_\_\_\_ V (i e)





# Conclusion

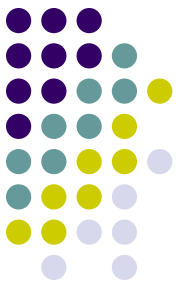
- An OCP driven constraint disallows two [labial] features in a row.
- There is delinking of the [labial] feature of /f/ with subsequent spreading of the [dorsal] feature of /u/ onto the delinked consonant.
- The debuccalization rule is then generalized to other vowels, except for /a/.
- This process goes in hand with what happened in the creation of Spanish from Latin



# Further Issues

- New sound change in progress or well established sociolinguistic variable
- Phonetically motivated or Lexically gradual?
- How does it fit within the system of fricatives?
- How does the rest of the system accommodate to the change?

# References



- Cho, Y-M Y. (1991) On the Universality of the Coronal Articulator. In Paradis, C. y J-F Prunet (ed), *Phonetics and Phonology: The Special Status of Coronals*. San Diego: Academic Press, Inc. 101-124.
- Clements, G. N. y E. Hume (1995) The Internal Organization of Speech Sounds. In Goldsmith, J. (editor) *The Handbook of Phonological Theory*. Cambridge: Blackwell. 245-306.
- McCarthy, J. (1988) Feature Geometry and Dependency. *Phonetica* 43, 84-108.
- Penny, R. (1991) *The History of the Spanish Language*, 2<sup>nd</sup> ed. Cambridge: CUP.
- Quilis, A. (1993) *Tratado de Fonología y Fonética Españolas*. Madrid: Editorial Gredos.
- Rice, K. & P. Avery (1991) Laterality and Coronality. In Paradis, C. & J-F Prunet (ed), *Phonetics and Phonology: The Special Status of Coronals*. San Diego: Academic Press, Inc. 101-124.