

## With regard to Syllable Contact and the sonority scale

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**1. Introduction.** It is a well-known fact that there is a cross-linguistic preference to avoid coda-onset clusters with sonority rise, a tendency known as the Syllable Contact Law after the work by Murray & Vennemann (1983) and Vennemann (1988). This law has been adduced to explain some diachronic changes, but also synchronic phenomena such as epenthesis and epenthesis positioning, consonant strengthening, syncope blocking, word order and subtraction regulation in blend formation, allomorph selection, metathesis, and regressive manner assimilation. **2. Goal.** The main purpose of this talk is to explore, on the basis of an extensive set of processes drawn from Romance languages, the nature of the Syllable Contact constraint in Optimality Theory. Moreover, we will also discuss which sonority confluences and reversals across languages should be possible and which should not, and how these language-specific details could be incorporated in the OT machinery. **3. Data.** The processes under examination are the following: *a*) regressive manner assimilation in some varieties of Catalan and in Languedocian Occitan (see 1), *b*) onset strengthening and epenthesis in Catalan (see 3), *c*) alveolar fricative rhotacism in Majorcan Catalan, dialects of Sardinian and dialects of Galician (see 2), *d*) alveolar fricative gliding in Languedocian Occitan (see 2), *e*) strategy selection in word-initial consonant clusters violating the minimum sonority distance constraints in Catalan, and, finally, *f*) allomorph selection in Catalan and Spanish (see 4). **4. Discussion.** Few of these processes have been considered to date in the literature devoted to Syllable Contact, although their analysis leads to some important typological and theoretical implications: 1) Behind the large amount of phonetic variation found in Romance languages due to consonantal contacts, a universal pattern can be outlined, that which ensures the optimization of syllable contacts: all the processes considered (see § 3 and 1-4), indeed, can be analyzed as strategies to improve syllable contacts. 2) Syllable Contact cannot be regarded as a single constraint which categorically bans coda-onset clusters with rising sonority, but should be broken down into a universal hierarchy of constraints targeting all possible sonority distances between adjacent heterosyllabic segments, as originally suggested by Murray & Vennemann (1983) and implemented to the OT machinery in Bat-El (1996), Gouskova (2001, 2002, 2005), Baertsch (2002), and Baertsch & Davis (2005). This claim is derived from the manner assimilation and lenition patterns depicted in (1) and (2). The emerging generalization behind the facts of regressive manner assimilation is that sonority increase across syllable boundary is leveled out by total assimilation (1a-1d), although a certain degree of sonority increase is permitted when a nasal or a sibilant are in first position (1j-1k). The emerging generalization behind the facts of lenition is that decreasing sonority distances can also be improved by increasing the sonority of the consonant in coda position (2c). These patterns can only be accounted for within a theory which targets all possible intersyllabic sonority distances, both positive and negative, through different markedness constraints and which, therefore, allows faithfulness constraints to intervene between them. 3) The asymmetrical phonological pattern of liquids (laterals, flaps and trills) and obstruents (voiced and voiceless) as far as manner alternations in Romance are concerned, leads to the necessity to have a theory which considers a sonority scale with fine distinctions between segments and which consents, across linguistic varieties, conflation and, eventually, reversals of segments that are in adjacent ranks in the sonority scale. To put a simple example, the fact that nasals assimilate the manner of articulation of the following lateral but not that of the following trill (1c vs. 1k) advocates a sonority scale where trills have less sonority than laterals, as already proposed in some studies (Bonet & Mascaró 1997, Parker 2002). Likewise, the fact that the processes of rhotacism and gliding apply before a voiced stop but not before a voiceless stop (2b vs. 2c) advocates a sonority scale where voiceless stops have less sonority than voiced stops, as already put forward in other studies (Steriade 1982, Davis 1990, Blevins 1995).

## Data\*

### (1) Manner assimilation patterns of Majorcan & Minorcan Catalan (MC) and Languedocian Occitan (LO)

<i>Potential intersyllabic rising sonority</i> → <i>manner assimilation</i>	<i>Flat or decreasing intersyllabic sonority</i> → <i>manner preservation</i>
a. Stop + non-stop consonant (MC) <i>cap llit</i> /kap##lít/ [kaɫ.lít] ‘any bed’ <i>cap iot</i> /kap##jot/ [kaj.jót] ‘any yacht’	e. Stop + stop (MC) <i>cap tros</i> /kap##trɔs/ [kat.trós] ‘any piece’ <i>llac petit</i> /lak##pətit/ [ɫap.pə.tít] ‘small lake’
b. Alveolar fricative + lateral, rhotic, glide (MC) <i>dos llits</i> /doz##lítz/ [doɫ.lítz] ‘two beds’ <i>dos iots</i> /doz##jotz/ [doj.jóts] ‘two yachts’	f. Alveolar fricative + non-sibilant (MC) <i>dos peus</i> /doz##pəwz/ [dos.péws] ‘two feet’ <i>dos fils</i> /doz##fílz/ [dos.fíls] ‘two threads’
c. Nasal + lateral, glide (MC) <i>un llum</i> /un#lum/ [uɫ.lúm] ‘one light’ <i>un iot</i> /un#jot/ [uj.jót] ‘one yacht’	g. Nasal + stop, fricative, rhotic (MC) <i>un peu</i> /un#pəw/ [um.péw] ‘one foot’ <i>un foc</i> /un#fɔg/ [uŋ.fók] ‘one fire’
d. Obstruent + sonorant (LO) <i>ròc mòl</i> /rɔk##mɔl/ [rɔm.mól] ‘soft rock’ <i>tot l’argent</i> /tut##l#ardʒent/ [tùllardʒén] ‘all the’	h. Lateral, rhotic, glide + consonant (MC) <i>mal fet</i> /mal##fet/ [mal.fét] ‘not well-done’ <i>mal ritme</i> /mal##ritm/ [mal.rím.mə] ‘bad rithm’ <i>bar petit</i> /bar##pətit/ [bàr.pə.tít] ‘small bar’
<i>Apparent exceptions</i> → <i>rising sonority but preservation</i> (MC)	i. Sonorant + obstruent (LO)
j. <i>dos nius</i> /doz##niwz/ [doz.níws] ‘two nests’	<i>ram petit</i> /ram##petit/ [ràm.petít]
k. <i>un riu</i> /un#riw/ [un.ríw] ‘one river’	<i>sol petit</i> /sol##petit/ [sùl.pe.tít]

### (2) Rhotacism / gliding patterns in Majorcan Catalan (MC), Sardinian (S), Galician (G) and Languedocian Occ.(LO)

<i>Potential intersyllabic rising sonority</i> → <i>lenition</i>	<i>Flat or decreasing intersyllabic sonority</i> → <i>preservation</i>
a. Alveolar sibilant + sonorant <i>tres manes</i> /tres##manɔs/ [trɛr.má.nɔs] ‘three hands’ (S) <i>tres yannes</i> /tres##jannas/ [trɛr.ján.nas] ‘three doors’ (S) <i>dos mons</i> /doz##monz/ [doɪ.mónz] ‘two worlds’ (MC) <i>dos nius</i> /doz##niwz/ [doɪ.níws] ‘two nests’ (MC) <i>estás mal</i> /stas##mal/ [es.tar.mál] ‘you feel bad’ (G) <i>cos nud</i> /kɔs#nyt/ [koj.nýt] ‘naked body’ (LO)	b. Alveolar sibilant + voiceless stop <i>tres panes</i> /tres##panes/ [trɛs.pá.nɛs] ‘three breads’ (S) <i>tres canes</i> /tres##kanes/ [trɛs.ká.nɛs] ‘three dogs’ (S) <i>dos pans</i> /doz##panz/ [dos.páns] ‘two breads’ (MC) <i>dos cans</i> /doz##kanz/ [dos.káns] ‘two dogs’ (MC) <i>estás tolo</i> /stas##tolo/ [es.tas.tó.lo] ‘you are mad’ (G) <i>las pòrtas</i> /las#pɔrtas/ [las.pór.tɔs] ‘the doors’ (LO)
c. <i>Apparent exceptions</i> → <i>Potential decreasing sonority but lenition</i> <i>tres boes</i> /tres##bɔɛs/ [trɛr.bó.ɛs] ‘three oxen’ (S), <i>tres domos</i> /tres##dɔmɔs/ [trɛr.dó.mɔs] ‘three houses’ (S) <i>dos bous</i> /doz##bɔwz/ [doɪ.bóws] ‘two oxen’ (MC), <i>dos dits</i> /doz##ditz/ [doɪ.díts] ‘two fingers’ (MC) <i>estás doente</i> /stas##doente/ [es.tar.do.én.te] ‘you are ill’ (G) <i>los buòus</i> /luz#bjɔwz/ [luj.bjóws] ‘the oxen’ (LO)	

### (3) Onset strengthening and epenthesis patterns in Catalan

*honrat* /onrad/ [un.rát] ‘honest’      *vendre* /ben+r/ [béŋ.drə] ‘to sell’

### (4) Allomorph selection patterns in Catalan and Spanish

/in/ → selected allomorph by default: *inestable* [inɛstáb.blə] ~ [inɛstáβle] ‘unstable’; *insegur(o)* [insəyú] ~ [inseyúro] ‘unsafe’

/i/ → selected allomorph to avoid a bad syllable contact (i.e. intersyllabic sonority rise): *il·legítim* [iləʒítim] ~ *ilegítimo* [ilɛxítimo] ‘illicit’; *irracional* [irəsjunál] ~ [iraθjonál]

\* Due to space reasons, just a reduced sample of the data under analysis is exposed.

## REFERENCES

- BAERTSCH, K. (2002). *An Optimality Theoretic Approach to Syllable Structure: The Split Margin Hierarchy*. PhD dissertation. Indiana: Indiana University.
- BAERTSCH, K. & DAVIS, S. (2003). The split margin approach to syllable structure. *Zas Papers in Linguistics* 32. 1-14.
- BAT-EL, O. (1996). Selecting the best of the worst: The grammar of Hebrew blends. *Phonology* 13. 283-328. BLEVINS, J. (1995). The Syllable in Phonological theory. In J. A. Goldsmith *The handbook of phonological theory*. Cambridge, Massachusetts: Blackwell Publishers.
- BONET, E. & J. MASCARÓ (1997). On the representation of Contrasting Rhotics. In F. Martínez Gil & A. Morales Front (eds.) *Issues in the Phonology and Morphology of the Major Iberian Languages*. Washington, D.C: GUP.
- DE LACY, P. (2002). *The formal expression of markedness*. PhD dissertation. U Mass, Amherst.
- CLEMENTS, G. N. (1990). The role of the sonority cycle in core syllabification. In J. Kingston & M. Beckman (eds.) *Papers in Laboratory of Phonology I. Between the Grammar and Physics of Speech*. Cambridge: CUP.
- DAVIS, S. (1990). Italian onset structure and the distribution of *il* and *lo*. *Linguistics* 28 43-55.
- GOUSKOVA, M. (2001). Falling sonority onsets, loanwords, and Syllable Contact. *CLS* 37, 1. 175-186.
- GOUSKOVA, M. (2002). Exceptions to sonority distance generalizations. *CLS* 38.
- GOUSKOVA, M. (2005). Relational hierarchies in Optimality Theory. *Phonology* 21 (number 2). 201-250. Parker, S. (2002). *Quantifying the Sonority Hierarchy*. PhD dissertation. U Mass, Amherst.
- STERIADE, D. (1982). *Greek prosodies and the nature of syllabification*. PhD dissertation. Department of Linguistics and Philosophy (MIT).