Do branching onsets need specific representations?

Guillaume Enguehard, Mohamed Lahrouchi

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Guillaume Enguehard
Université d'Orléans, CNRS/LLL

Mohamed Lahrouchi
CNRS, Université Paris 8 / SFL

I. EMPIRY

Properties of Branching onsets:

1. two segments
2. invisible to the Three-Consonant Law
3. weightless

Branching onset test:

1. is CC observed in initial position?
2. is CC observed after a heavy rhyme?
3. is CC invisible to stress rules?

note: in this study, we took into account only the first of these tests.

Mini-Typology:

	TR	SL	SR	SS
FRENCH	[tʁu] 'hole'	-	-	-
ENGLISH	[tɹæk] 'track'	[sləʊ] 'slow'	-	-
RUSSIAN	[tri] 'three'	[slɔvə] 'word'	[srɔk] 'delay'	-
BERBER	[tra] 'she wants'	[sli] 'touch'	[sri] 'scratch'	[ssaɣ] 'buy'

ss > sr > sl > tr

II. THEORY

Skeleton, melody and the OCP

1. OCP (Leben 1973, McCarthy 1979, 1986)
2. Strict periodicity between C and V positions (Lowenstamm 1996)
3. Strict CV is a dissimilation process between root nodes

C ≠ V ≠ C ≠ V... (Carvalho 2002, Enguehard 2018)

Complex onset vs. any other CC cluster

1. V is equivalent to a weight unit (Scheer & Szigetvári 2005)
2. Thus, branching onsets, i.e. weightless clusters, have no V
3. V drops *iff* root nodes are distinct enough (Enguehard 2019)

a. [?H][-] [-] → T R

b. [?H][?] [H] → *T T

c. [-] V [?H] → R T

note: V cannot branch after a sonorant, because these potentially branch to V (see Pöchtrager 2001).

For any complex onset with *n* violations of the OCP, there is a complex onset with *n-1* violations of the OCP.

III. PREDICTIONS

1. Each element lies on its own tier
2. Each repetition of the same value incurs an OCP violation

a. [-H][-H] → s s

b. [-H][--] → s r

c. [-H][?-] → s l

d. [?H][--] → t r

Coronality = A (R in Harris 1990)

	p	t	k	f	s	h	m	n	ŋ	l	r	w	j
p |ʔHU|	6	4	5	5	3	4	4	2	3	3	2	4	2
t |ʔHA|	4	6	5	3	5	4	2	4	3	5	4	2	2
k |ʔH|	5	5	6	4	4	5	3	3	4	4	3	3	3
f |HU|	5	3	4	6	4	5	3	1	2	2	3	5	3
s |HA|	3	5	4	4	6	5	1	3	2	4	5	3	3
h |H|	4	4	5	5	5	6	2	2	3	3	4	4	4
m |NU|	4	2	3	3	1	2	6	4	5	3	2	4	2
n |NA|	2	4	3	1	3	2	4	6	5	5	4	2	2
ŋ |N|	3	3	4	2	2	3	5	5	6	4	3	3	3
l |ʔA|	3	5	4	2	4	3	3	5	4	6	5	3	3
r |A|	2	4	3	3	5	4	2	4	3	5	6	4	4
w |U|	4	2	3	5	3	4	4	2	3	3	4	6	4
j |I|	2	2	3	3	3	4	2	2	3	3	4	4	6

Expected pattern: ss > sr, tl > sl, tr
Weird patterns: tr > sp (...)

Coronality = I or A (Backley 2011)

	p	t	k	f	s	h	m	n	ŋ	l	r	w	j
p |ʔHU|	6	4	5	5	3	4	4	2	3	3	2	4	2
t |ʔHI|	4	6	5	3	3	4	2	4	3	5	2	2	4
k |ʔH|	5	5	6	4	4	5	3	3	4	4	3	3	3
f |HU|	5	3	4	6	4	5	3	1	2	2	3	5	3
s |HA|	3	3	4	4	6	5	1	1	2	2	5	3	3
h |H|	4	4	5	5	5	6	2	2	3	3	4	4	4
m |NU|	4	2	3	3	1	2	6	4	5	3	2	4	2
n |NI|	2	4	3	1	1	2	4	6	5	5	2	2	4
ŋ |N|	3	3	4	2	2	3	5	5	6	4	3	3	3
l |ʔI|	3	5	4	2	2	3	3	5	4	6	3	3	5
r |A|	2	2	3	3	5	4	2	2	3	3	6	4	4
w |U|	4	2	3	5	3	4	4	2	3	3	4	6	4
j |I|	2	4	3	3	3	4	2	4	3	5	4	4	6

IV. CONCLUSION

Branching onsets can be derived from general autosegmental principles. There is no need for specific representations. The typology of branching onsets results from a scale of OCP violations. Of course, there is a lot of weird patterns, but these depend more on the version of the Element Theory than on the present hypothesis.

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