Phonology **36** (2019). Supplementary materials

No transposition in Harmonic Serialism

Chikako Takahashi
Stony Brook University

Supplementary materials

Appendix A: Examples of synchronic metathesis

The list below is adapted and reorganised from Canfield (2015: 271–296). It excludes languages where metathesis is optional, languages with only historical examples and languages in which only a few examples have been presented. The data in Canfield (2015) is derived from the OSU database (see Hume & Seyfarth 2019).

CV → VC

language	target segments
Clallam, Fur, Hixkaryana, Kwara'ae, Rotuman, Saanich, Sierra Miwok	all segments
Alsea, Georgian, Maltese	sonorant + V
Palestinian Arabic	C + high V

VC → CV

language	target segments
Kuvi, Leti, Saanich	all segments
Bedouin Arabic	low vowel + 'guttural'
Bonggi	/r/ + V
Classical Greek	nasal, liquid or /w/ + /j/
Kabardian	glide + V
Lenakel	high V + /h/
Mutsun	suffixes /-tak, -mak/ → [-tka, -mka]

CC

language	target segments
Ahtna	/t/ + /s/
Balangao	glottal + obstruent
Basaa	C + /h/
Cebuano, Twana[1]	/ʔ/ or /h/ + C
Cherokee	glide + /h/
Deg	labial + /r/
Elmolo	obstruent stop + liquid
Faroese	stop + /s/
Fur	/l/ + /m/
Hebrew	/t/ + coronal sibilant
Hixkaryana	sibilant + /h/
Kota, Zoque	C + /j/ or /jC/
Kui, Kuvi	velar stop + labial stop
Lithuanian	velar stop + coronal fricative
Oromo	ejective alveolar + alveolar nasal
Pawnee	/r/ + /h/
Persian	obstruent or nasal + liquid
Rendille	pharyngeal + C, obstruent or nasal + liquid
Sidamo	obstruent + nasal
Old Spanish	/n/ + /r/
Tagalog	/l/ + /n/, /m/ + /n/, /t/ + /p/, /l/ + /d/
Tübatulabal	/h/ + glide
Udi	stop or affricate + fricative
Wichita	/k/ + /r/

[1] The Cebuano and Twana CC metathesis patterns are listed by Canfield as /ʔh/ → [hʔ]. However, the actual patterns in the database involve /h/ or /ʔ/ switching positions with C.

Appendix B: Possible grammars and outputs

The grammars in this appendix were generated using OT-Help 2.0 (Staubs *et al*. 2010). Some of the constraints below do not appear in the paper, since they are either undominated or assumed to be active, but not crucial in the discussion. For more information about the ways in which constraints and operations are defined in OT-Help 2.0, see Mullin *et al*. (2010).

The full computational analysis, implemented in OT-Help 2.0, includes the following additional user-defined constraints.

(37) a. CULMINATIVITY
Penalise outputs in which a word does not contain exactly one stressed vowel.

b. *CC
Penalise outputs that contain a CC sequence.

c. *FINALMORASTRESS
Penalise outputs whose final vowel is stressed.

d. FOOT=TROCHEE
Penalise outputs whose foot is not a trochee.

e. IDENT(foot)
Penalise outputs whose foot boundaries differ from the foot boundaries in the input.

f. IDENT(stress)
Penalise outputs whose output stress pattern differs from the input stress pattern.

g. ONSET
Penalise outputs that start with a vowel.

h. RECURSIVITY
Penalise outputs whose foot contains another foot.

i. SYLLNEEDSV
Penalise outputs whose syllable does not contain a vowel.

j. INITSTRESS
Penalise outputs whose first syllable is not stressed.

k. FOOTBIN
Penalise outputs whose foot contains only CV.

Rotuman

grammar		/raku/	/hoti/	/hosa/
1	TROCHEE, *CC, ONSET, SWP, FINALSTRESS, LIGHTDIPH, IDENT(stress), UNIFORMITY, INTEGRITY, MAX ≫ CULMINATIVITY	raku	hoti	hosa
2	TROCHEE, *CC, ONSET, LIGHTDIPH, CULMINATIVITY, UNIFORMITY, INTEGRITY, MAX ≫ SWP, FINALSTRESS, IDENT(stress)	'raku	'hoti	'hosa
3	TROCHEE, *CC, ONSET, LIGHTDIPH, CULMINATIVITY, UNIFORMITY, MAX ≫ SWP, FINALSTRESS, IDENT(stress) ≫ INTEGRITY	'raku	'hoti	'hoas
4	*CC, ONSET, FINALSTRESS, LIGHTDIPH, CULMINATIVITY, UNIFORMITY, INTEGRITY, MAX ≫ TROCHEE, SWP, IDENT(stress)	rak'u	ho'ti	ho'sa
5	TROCHEE, ONSET, LIGHTDIPH, CULMINATIVITY, UNIFORMITY, MAX ≫ SWP, FINALSTRESS, IDENT(stress) ≫ *CC, INTEGRITY	'rarku	'hohti	'hoas
6	*CC, ONSET, FINALSTRESS, LIGHTDIPH, CULMINATIVITY, UNIFORMITY, MAX ≫ TROCHEE, SWP, IDENT(stress) ≫ INTEGRITY	ra'kuk	ho'tit	ho'sas
7	TROCHEE, *CC, ONSET, CULMINATIVITY, UNIFORMITY, MAX ≫ SWP, FINALSTRESS, IDENT(stress) ≫ LIGHTDIPH, INTEGRITY	'rauk	'hoit	'hoas
8	TROCHEE, *CC, ONSET, CULMINATIVITY, MAX ≫ SWP, FINALSTRESS, IDENT(stress) ≫ LIGHTDIPH, INTEGRITY ≫ UNIFORMITY	'rak	'høt	'hoas

Kwara'ae

232 possible grammars were generated. **V** is a copied vowel.

grammar		/CaCa/	/CaCaCa/
230	ALIGN(Wd,Ft)-R, *FINALMORASTRESS, RECURSIVITY, FOOT=TROCHEE, ONSET, SYLLNEEDSV, CULMINATIVITY, IDENT(stress) ≫ SWP ≫ *HL, DEP ≫ ALIGN(Wd,Ft)-L, INITSTRESS, MAX ≫ FOOTBIN, IDENT(foot)	('Ca**V**C)	('Ca)('Ca**V**C)

Balangao

Post-vowel-deletion intermediate winners were fed as input. V is aepenthesised vowel.

grammar		/ʔihgɨp/	/mahdɨm/	/pʌhdin/
1	*CompSeg, Uniformity, Integrity, Max, Dep ≫ *GlottalPlosive	ʔihgɨp	mahdɨm	pʌhdin
2	*GlottalPlosive, Integrity, Max, Dep ≫ *CompSeg, Uniformity	ʔig$^{h}{}_{1,2}$ɨp	mad$^{h}{}_{1,2}$ɨm	pʌd$^{h}{}_{1,2}$in
3	*GlottalPlosive, *CompSeg, Uniformity, Integrity, Max ≫ Dep	ʔihVgɨp	mahVdɨm	pʌhVdin
4	*GlottalPlosive, *CompSeg, Uniformity, Integrity, Dep ≫ Max	ʔihɨp, ʔihgɨp	mahɨm, madɨm	pʌhin, pʌdin
5	*GlottalPlosive, Max, Dep ≫ *CompSeg, Uniformity ≫ Integrity	ʔighɨp	madhɨm	pʌdhin

ADDITIONAL REFERENCE

Mullin, Kevin, Brian W. Smith, Joe Pater & John J. McCarthy (2010). OT-Help 2.0 user guide. http://people.umass.edu/othelp/OTHelp2man.pdf.