1 Some definitions

Opacity (Kiparsky, 1973). A process P of the form A → B / C _ D is opaque if there are surface structures with either of the following characteristics:

- instances of A in the environment C _ D
- instances of B derived by P that occur in environments other than C _ D

Types of opacity (Baković, 2010). Given two rules A and B such that A precedes B,

- A feeds B iff A creates additional inputs to B (**feeding**)
- A bleeds B iff A eliminates potential inputs to B (**bleeding**)
- B counterfeeds A iff B creates additional inputs to A (**counterfeeding**)
- B counterbleeds A iff B eliminates potential inputs to A (**counterbleeding**)

2 Exercises

For each problem below, figure out the [approximate] rules needed, the correct order of the rules, and what type of opacity the relationship presents. First try it with English plurals (continued from 28 June).

I. Lomongo verbs

gloss	input	pronunciation
they dance	/ba+bina/	[baina]
you (sg.) hide	/o+isa/	[wisa]
you (sg.) dance	/o+bina/	[oina]

II. Low German adjectives (dialect 1)

gloss	input	pronunciation
long (m.)	/laŋg/	[laŋk]
long (f.)	/laŋg+ə/	[laŋə]

III. Low German adjectives (dialect 2)

gloss	input	pronunciation
long (m.)	/laŋg/	[laŋ]
long (f.)	/laŋg+ə/	[laŋə]

IV. Isthmus Nahuat

gloss	input	pronuncaition
it ends	/támi/	[tám]
shelled corn	/tájo:l/	[tájo:l̩]
put it in it	/ʃikakíli/	[ʃikakíl]

V. Turkish 3rd person possessives

— (bare noun)		+/suɪ/ (possessive)	
[ɛlma]	*apple*	[ɛlmasɯ]	*his/her apple*
[dolma]	*stuffing*	[dolmasɯ]	*its stuffing*
[baʃ]	*head*	[baʃɯ]	*his/her head*
[ʧan]	*bell*	[ʧanɯ]	*his/her bell*
[ajak]	*foot*	[ajaɯ]	*his/her foot*
[baluk]	*fish*	[balɯɯ]	*his/her fish*

VI. Polish nouns

gloss	input	pronunciation
farmer	/xwɔp/	[xwɔp]
cat	/kɔt/	[kɔt]
vision	/vzrɔk/	[vzrɔk]
salt	/sɔl/	[sul]
argument	/spɔr/	[spur]
crib	/ʒwɔb/	[ʒwup]
front	/pʃɔd/	[pʃut]
enemy	/vrɔg/	[vruk]

VII. Tunica vowel harmony

gloss	input	pronunciation
she looks	/pó+ʔaki/	[póʔɔki]
she emerges	/pí+ʔaki/	[píʔɛki]
he dances	/hípu+ʔuhki/	[hípʔuhki]
he leads (someone)	/náʃi+ʔuhki/	[náʃʔuhki]
she dances	/hípu+ʔaki/	[hípʔɔki]
she leads (someone)	/náʃi+ʔaki/	[náʃʔɛki]

VIII. Turkish 1st person possessives

— (bare noun)		+/m/ (possessive)	
[ɛlma]	*apple*	[ɛlmam]	*my apple*
[dolma]	*stuffing*	[dolmam]	*my stuffing*
[baʃ]	*head*	[baʃum]	*my head*
[ʧan]	*bell*	[ʧanum]	*my bell*
[ajak]	*foot*	[ajaum]	*my foot*
[baluk]	*fish*	[balɯɯm]	*my fish*

1 Child Phonology

Make phonological generalisations about the following data sets from child speakers of English.

I. N.E., age 4;6

[tɛi]	'catching'	[dɛ]	'leg'
[te]	'cage'	[deʔ]	'gate'
[tɪkʊ]	'chicken'	[dɪ]	'swim'

[ko]	'comb'	[goʔ]	'goat'
[kuʔ]	'soup'	[guh]	'tooth'
[ka]	'Tom'	[ga]	'dog'
[kah]	'cough'	[gʊ]	'girl'

[pɪ]	'pinch'	[bɪ]	'big'
[pʊh]	'push'	[bɛ]	'bed'
[piʔ]	'peach'	[bo]	'bo'
[pe]	'page'	[buʔ]	'boot'

II. Amahl, Stage 1, age 2;6

[be:bi:]	'baby'	[bɛk]	'back'
[dɛdi:]	'Daddy'	[dɔ:]	'door'
[ga:gi:]	'glasses'	[geip]	'grape'

[ba:k]	'park'	[bɛgu]	'pedal'
[dɛdi:]	'teddy'	[di:t]	'teeth'
[ga:bi:]	'carpet'	[gʌm]	'come'

| [a:t] | 'hard' | [deidi:bə:t] | 'ladybird' |
| [gɛk] | 'leg' | [bɛk] | 'peg' |

[bʌp]	'bump'	[bɔp]/[dɔp]	'stop'
[dait]	'light'	[ɛt]	'ant'
[ge:k]	'cake'	[ga:k]	'dark'

III. Subject 33, age 5;4

[fɑɪjɹ]	'fire'	[fɑɪv]	'five'
[burəfʊ]	'beautiful'	[tɑfɪn]	'coughing'
[nɑɪf]	'knife'	[jif]	'leaf'

[foɹn]	'thorn'	[fʌm]	'thumb'
[bæfi]	'bath (dim.)'	[maʊfi]	'mouth (dim.)'
[bæf]	'bath'	[tuf]	'tooth'

[θo]	'sew'	[θiʔ]	'sink'
[bʌθi]	'bus (dim.)'	[ɑɪθi]	'icy'
[duθ]	'juice'	[veɪθ]	'vase'