# Phonology Assignment #6

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# 1 Part 1

Spirantization:

$$[-syl\ -cont\ -strid\ -nas]([-syl\ -cont\ -strid\ -nas])\ \rightarrow\ [-syl\ +cont]([-syl\ +cont])\ /\ V_{--}V$$

Nasal Place Reduction:

$$[-\mathrm{syl} \ +\mathrm{nas}] \rightarrow [-\mathrm{syl} \ +\mathrm{nas} \ +\mathrm{cor} \ +\mathrm{ant}] \ / \ \_\_\$$$

Coronal Cluster Simplification:

$$[-syl + cor] \rightarrow \emptyset / [-syl + cor]_{--}$$

## 2 Part 2

Morpheme	Underlying Representation
SINGULAR	Ø
SING. DEFINITE	ta
PLURAL	0
house	dar
side	gers
leg	lug
woman	na <b>:</b> g
pestle	tib
outcast	sab
sea	bad
person	?id
rib	feː d
stick	ul
month	bil
branch	laːn
riverbank	da:n
poison	sun
affair	dan
hide	sain
hip	$\sin$
baby female camel	nirg
girl	gabd
arm	ga?n
downpour	hogl
mule	bagl
female kid	wafiar
pan	kefed
female dwarf	?ilin
hole	bohol

## 3 Part 3

1) The correct rule ordering is CVE followed by CCS. The environment for CVE is VCCC (or VCC#). If we were to perform CCS first, it would destroy that environment. For example, with a word like 'girl,' this is what would happen if we did CCS first:

Input $(UR + other rules)$	$ga\beta d$	$ga\beta dta$	gabdo
CCS	_	$ga\beta da$	_
CVE	$ga\beta ad$	_	_
$\operatorname{SR}$	$ga\beta ad$	$ga\beta da$	gabdo

This is the wrong SR for the singular definite form. Doing CCS first 'bled' CVE-it destroyed the environment of three consonants in a row that is required for CVE to operate on that form. Compare that to if we use the correct ordering:

Input	$ga\beta d$	$\mathrm{ga}eta\mathrm{dta}$	gabdo
CVE	$ga\beta ad$	$ga\beta adta$	_
CCS	_	$ga\beta ada$	_
SR	$ga\beta ad$	$ga\beta ada$	gabdo

This time, the environment needed by CVE is preserved, and we get the correct SR. Because CCS does not destroy the environment of CVE until after we have performed CVE, this rule relationship is called 'counterbleeding.'

2) The correct rule ordering is Spirantization followed by CCS. Performing CCS first would 'feed' the environment for Spirantization (namely a stop between two vowels). However, in our data, we don't want that to happen. Observe what happens to a word like *bada* if we put CCS first:

Input	bad	badta	bado
CCS	_	bada	_
Spir.	-	baða	baðo
SR	bad	baða	baðo

Again, the singular definite form has the wrong SR. We do not observe Spirantization operating on that form in our data – the actual SR is *bada*. Here is the correct rule ordering, in which CCS 'counterfeeds' Spirantization by creating the environment for it *after* it has already applied:

Input	bad	badta	bado
Spir.	_	_	baðo
CCS	_	bada	_
SR	bad	bada	baðo

3) The correct rule ordering is CVE followed by Spirantization. CVE 'feeds' Spirantization by creating the environment for it to apply. If we put Spirantization first, it would not be able to apply because its environment would not exist. Here is the correct rule ordering demonstrated with the word *hogl*:

Input	hogl	hoglta	hoglo
CVE	hogol	hogolta	_
Spir.	hoyol	hoyolta	_
SR	hoyol	hoyolta	hoglo

#### 4 Part 4

UR	lug	lugo	ferd	ferdta	ferdo	$\operatorname{sum}$	sumo	$\operatorname{gabd}$	gabdta	$\operatorname{gabdo}$
CVE	_	_	_	_	_	_	_	gabad	gabadta	_
Spir.	_	luyo	_	_	feːzo	_	_	gaβad	gaβadta	_
CCS	_	_	_	ferda	_	_	_	_	gaβada	_
Nas.	_	_	_	-	-	sun	_	_	1	_
SR	lug	luyo	ferd	ferda	feːzo	sun	sumo	gaβad	gaβada	gabdo