Assignment #4: Lexical Phonology in (composite) Spanish

Instructions
- Develop an analysis with <u>OT or rules</u> (your choice), using Lexical Phonology, of the phenomena below (nasal place, lateral place, [s]~[h] alternations, [j]~[ɟ] alternations, [r] ~ [ɾ] alternations).
- This means you'll need to decide which morphology belongs to which level, and which process applies at which level.
    - We may make a teeny bit of progress on this in class already.

Data note
- Main source is Harris 1983. Additional data from Baković 2000, Shepherd 2003, Editors of The American Heritage Dictionaries 1986, Wiktionary (wiktionary.org), and the *Diccionario del español de México* (dem.colmex.mx).
- The data here are from a composite, idealized dialect that has all 5 phenomena and applies them in a uniform way, and conserves certain contrasts that most dialects don't have.
    - o I doubt there is any one Spanish speaker who speaks this way
    - o If the idealization bothers you, imagine you're analyzing one fragment each of several varieties

Tips
- Start by thinking about putting morphological operations and phonological operations on an equal footing:
    - o figure out what orderings of phonological changes and morphological changes you need based on (counter){f,bl}eeding, etc., that you observe.
- Then, explain this ordering by assigning morphology and phonology to levels.
- Keep in mind that the output of the lexical component is a single word, so multi-word phrases don't get put together till after the lexical component.
- Also keep in mind that even if an utterance is only one word long, it still passes through the postlexical component.
- If you opt for OT, then to keep your writeup from getting too long, be selective about which candidates you show in a tableau.

A. Place of articulation of nasals

- In some positions, there is a 3-way contrast among nasals:

1.	má.t-a bush-*fem*	*2.*	ká.m-a bed-*fem*
3.	ná.t-a cream-*fem*	*4.*	ká.n-a grey.hair-*fem*
5.	ɲá.t-a snub.nosed-*fem*	*6.*	ká.ɲ-a cane-*fem*
7.	no words like *ŋá.t-a	*8.*	no words like *ká.ŋ-a

- Within a morpheme, only certain sequences of *nasal+C* are allowed:

  9. kám.p-o   no words like   *káŋ.po
     countryside-*masc*   *kán.bo   etc.

  10. kám.bj-o
      change-*masc*

  11. kwán.to   no words like   *kwáŋ.to
      how.much   *kwám.to   etc.

  12. kwán.do
      when

  13. kán.s-o
      tire-*1sg.pres*

  14. en.lá.θe
      bond

  15. ón.r-a
      honor-*fem*

  16. rán̪.t͡ʃ-o   [n̪] is post-alveolar (has same place features as [t͡ʃ])
      ranch-*masc*

  17. áŋ.k-a   no words like   *án.ka
      haunch-*fem*   *ám.ka   etc.

  18. ɡáŋ.ɡ-a
      sandgrouse-*fem*

  19. a.xéŋ.x-o
      wormwood-*masc*

- What about morpheme-final nasals?[1] When not followed by anything, they are always [ŋ]. But when another sound does follow, we see various interesting things happen:

  20. eŋ.#t͡ʃĩ.le
      in Chile

  21. e.ŋ#a.ɣóh.t-o
      in August-*masc*

  22. siŋ.#di.né.ɾ-o
      without money-*masc*

  23. u.ŋ#e.le.fán.te
      a elephant

  24. taŋ.#fɾí.-o
      so cold-*masc*

  25. koŋ.#lé.t͡ʃe
      with milke

  26. e.ŋ#á.ɣw-a-h
      in water-*fem-pl*

---

[1] This is one of the areas that actually varies across varieties of Spanish

27. páŋ
bread

28. pa.n-a.ðe.ɾí-a
bakery-*fem*

pa.n-i.fi.ka.-ðó.ɾ-a
bread-make-er-*fem*

29. pá.n-eh
bread-*pl*

30.
cf.
e.ná.ɣw-a-h
petticoat-*fem-pl*

el.#pán.#eh.#ɾí.k-o
the bread is tasty-*masc*

pán.#de.#tɾí.ɣ-o
bread of wheat-*masc*

31. ko.múŋ
common

32. ko.mu.n-ál
common-al

ko.mu.n-íh.m-o
common-ism-*masc*

33. ko.mú.n-eh
common-*pl*

34. lo.#ko.mú.ŋ#eh...
the common[thing] is ...

lo.#ko.mú.ŋ#si.ɣ-e...
the common[thing]
continue-*3sg.pres* ...

35. ra.móŋ
Ramón

36. ra.mó.n-a
Ramón-*fem* (Ramona)

37. ra.mó.ŋ#en.tɾ-ó
Ramón enter-*3sg.past*

ra.mó.ŋ#dí.θ-e
Ramón say-*3sg.pres*

38. dóŋ
Mr

39. dó.ɲ-a
Mr-*fem* (Ms)

40. dó.ŋ#a.le.xán.dɾ-o
Mr Alejandro-*masc*

dóŋ.#pé.ðɾ-o
Mr Pedro-*masc*

41. deh.ðéŋ
disdain

42. deh.ðé.ɲ-eh
disdain-*2sg.pres.subj*

deh.de.ɲ-ár/ɾ
disdain-*infinitive*

deh.de.ɲ-ó.s-o
disdain-ful-*masc*

43. deh.ðé.n-eh
disdain-*pl*

44. deh.ðé.ŋ#i.#a.ro.ɣán.θj-a
disdain and arrogance-*fem*

(no
unsuffixed
form
exists)

45. re.ɲ-ír/ɾ
quarrel-*infinitive*

rí.ɲ-a
quarrel-*fem*

ren.-θí.ʎ-a
quarrel-*diminutive-fem*

46. a.ðáŋ
Adam

47. a.ða.m-íh.m-o
Adam-ism-*masc*

a.ðá.m-i.k-o
Adam-ic-*masc*

48. a.ðá.n-eh
Adam-*pl*

49. a.ðá.ŋ#i.#é.β-a
Adam and Eve-*fem*

a.ðáŋ#bwél.βe
Adam return-*3sg.pres*

50. a.ɾéŋ
harem

51. a.ɾe.m-íh.t-i.k-o
harem-ist-ic-*masc*

52. a.ɾé.n-eh
harem-*pl*

53. a.ɾé.ŋ#eŋ.#tuɾ.kía
harem in Turkey

a.ɾéŋ.#del.#pa.lá.θjo
harem of.the palace

B. Laterals

▪ Here are some similar data on [l] and [ʎ].[2] They contrast in some environments:

54. lá.m-a
slime-*fem*

55. ʎá.m-a
llama-*fem*

56. le.g-ár/ɾ
hand.down-*infinitive*

57. ʎe.g-ár/ɾ
arrive-*infinitive*

58. ka.l-ár/ɾ
soak-*infinitive*

59. ka.ʎ-ár/ɾ
be.quiet-*infinitive*

60. pó.l-o
pole-*masc*

61. pó.ʎ-o
chicken-*masc*

▪ But the contrast is neutralized in some environments, where they alternate with each other:

(no unsuffixed form exists)

62. bé.ʎ-o
pretty-*masc*

be.ʎ-é.θ-a
pretty-ness-*fem*

bel.-dáð
pretty-ness

63. don.θél
lad

64. don.θé.ʎ-a
lad-*fem*

65. don.θé.l-eh
lad-*pl*

66. don.θé.l#eh.t-á.βa
lad be-*3sg.imperf*

don.θé.ʎ-a-h
lad-*fem-pl*

67. él
he

68. é.ʎ-a
he-*fem*

69. él#éh
he be-*3sg.pres*

You don't have to explain why the plural is sometimes [-h] and sometimes [-eh].

---

[2] [ʎ] has changed to [j] in most varieties, but it will make the analysis simpler to assume the more conservative [ʎ]

C. [s] ~ [h] alternations

▪ [s] and [h] don't contrast. Here's some data on their distribution:[3]

70.	sá.l-a room-*fem*	71.	no words like *há.la
72.	só.p-a soup-*fem*	73.	no words like *hó.pa
74.	ká.s-a house-*fem*	75.	no words like *ká.h-a
76.	a.sá-r/ɾ roast-*infinitive*	77.	no words like *a.há-r/ɾ
78.	*més	79.	méh month
80.	*tós	81.	tóh cough

▪ Here's some data showing alternations between them.

82.	méh month			83.	mé.s-eh month-*pl*	84.	el#.mé.h#eh the month be-*3sg.pres* el#.méh.#pɾók.si.m-o the month next-*masc*
85.	tóh cough		to.s-ér/ɾ cough-*infinitive*	86.	tó.s-eh cough-*pl*	87.	to.h#eh.ta.θjo.n-ál cough season-al toh#sé.k-o cough dry-*masc*
		88.	tjé.n-e have-*3sg.pres* tjé.n-eh have-*2sg.pres*	89.		90.	tjé.ne.#sá.la-h have-*3sg.pres* room-*pl* tjé.n-e.h#á.la-h have-*2sg.pres* wing-*pl*

D. [j] ~ [ɟ] alternations

▪ [j] and [ɟ] don't contrast. Here's some data showing their distribution and alternations[4].

91.	ɟó.ð-o iodine-*masc*	92.	no words like *jó.ð-o
93.	a.ɟér/ɾ yesterday	94.	no words like *a.jér/ɾ
95.	no words like *óɟ	96.	ój today

---

[3] This happens in most varieties of Spanish, but it's variable, and with a lot of sociolinguistic and geographic conditioning.
[4] Happens in many varieties but not all

97. kɾe.-ɟén.do
believe-ing-*masc*

98. ko.m-jén.d-o
eat-ing-*masc*

99. le.-ɟó
read-*3sg.past*

100. ko.m-jó
eat-*3sg.past*

- Alternations with more morphology (sorry, no good source examples of derivational morphology):

101. kom.bój
convoy

102. kom.bó.ɟ-
eh
convoy-*pl*

103. el.#kom.bó.j#eh ...
the convoy be-*3sg.pres* ...

el.#kom.bój#sí.ɣ-e
the convoy continue-*3sg.pres*

104. bwéj
steer

105. bwé.ɟ-eh
steer-*pl*

106. el.#bwé.j#eh ...
the steer be-*3sg.pres* ...

el.#bwéj#βjé.ne
the steer come-*3sg.pres*

107. léj
law

108. lé.ɟ-eh
law-*pl*

109. la.#lé.j#eh
the law be-*3sg.pres*

la.#léj#del.#món.te
the law of.the mountain

110. áj
have.*3sg.pres*

111. a.j#ú.n-a
have.*3sg.pres* one-*fem*
cf.
a.ɟú.n-a
fast-*3sg.pres*

E. [r] ~ [ɾ] alternations

- [r] and [ɾ] contrast, but in some environments only one is possible, and in some environments there is only free variation between the two (no contrast):

	contrast		*only [r]*		*only [ɾ]*		*only free variation*
112.	fó.ɾ-o forum-*masc*	113.	rá.pi.d-o fast-*masc*	114.	prá.ð-o meadow-*masc*	115.	sa.l-ír, sa.l-íɾ exit-*infinitive*
116.	fó.r-o lining-*masc*	117.	rá.t-o rat-*masc*	118.	brá.β-o bold-*masc*	119.	már.teh, máɾ.teh Tuesday
120.	ká.ɾ-o dear-*masc*	121.	ré.t-o dare-*masc*	122.	fráh.k-o bottle-*masc*	123.	már, máɾ sea
124.	ká.r-o cart-*masc*	125.	rí.t-o rite-*masc*	126.	tɾá.p-o rag-*masc*	127.	ár.p-a, áɾ.p-a harp-*fem*
128.	θé.ɾo zero	129.	ró.t-o broken-*masc*	130.	dɾá.ma drama	131.	ár.βol, áɾ.βol tree
132.	θé.r-o hill-*masc*	133.	rú.t-a highway-*fem*	134.	gɾá.t-o grateful-*masc*	135.	gár.fj-o, gáɾ.fj-o hook-*masc*
136.	pé.ɾo but	137.	ón.r-a honor-*fem*	138.	kɾá.ter/ɾ crater	139.	ár.m-a, áɾ.m-a weapon-*fem*

140. pé.r-o
dog-*masc*

141. en.rí.ke
Enrique

142. ár.te, áɾ.te
art

143. mí.ɾ-a
target-*fem*

144. al.**re**.ðe.ðór/ɾ
around

145. ár.ð-e, áɾ.ð-e
burn-*3sg.pres*

146. mí.r-a
myrrh-*fem*

147. ih.ra.él
Israel

148. fár.s-a, fáɾ.s-a
farce-*fem*

149. sár.n-a, sáɾ.n-a
roe-*fem*

150. kár.loh, káɾ.loh
Carlos

151. már.t͡ʃ-a, máɾ.t͡ʃ-a
march-*fem*

152. ár.k-o, áɾ.k-o
weapon-*masc*

153. lár.ɣ-o, láɾ.ɣ-o
long-*masc*

154. sar.xén.t-o,
saɾ.xén.t-o
sergeant-*masc*

- Here's some data on alternations

155. a.mór/ɾ
love

156. a.mo.ɾ-ó.s-o
love-ous-*masc*

a.mo.ɾ-í.o
'love affair'

157. a.mó.ɾ-eh
love-*pl*

158. el.#amó.r#eh...
the love be.*3sg.pres*

159. rá.t-a
rat-*fem*

160. la.#rá.t-a
the rat-*fem*

161. tó.ɾ-o
bull-*masc*

162. to.ɾ-é.ɾ-o
'bullfighter'

163. tó.re
tower

164. to.r-é.ɾ-o
'lighthouse keeper'

165. már/ɾ
sea

166. ma.ɾ-í.n-a
navy-?-*fem*

ma.ɾ-é-a
'tide'

má.ɾ-eh
sea-*plura*

167. már/ɾ.#βér/ɾ.ðe
sea green

már/ɾ.#tɾaŋ.kí.l-o
sea tranquil-*masc*

má.ɾ#a.θúl (*má.r#a.θúl)
sea blue

References
Baković, Eric. 2000. Nasal place neutralization in Spanish.
Editors of The American Heritage Dictionaries (ed.). 1986. *The American Heritage Larousse Spanish Dictionary.*. Houghton Mifflin.

Harris, James. 1983. *Syllable Structure And Stress in Spanish: a Nonlinear Analysis.*. Cambridge, Mass.: MIT Press.

Shepherd, Michael. 2003. Constraint interactions in Spanish phonotactics: an Optimality Theory analysis of syllable-level phenomena in the Spanish language.. California State University, Northridge master's thesis.