

Assignment #3: process application in WoleaianData from Sohn (1971)¹Due **Friday, Feb. 13** (put a hard copy in my mailbox, Campbell 3125)**Instructions for write-up**

- First, discuss the issues for rule application that arise in the data, given Sohn's three rules. You should consider iterativity, directionality, and anything else that strikes you.

Sohn's three rules

- *a-a* dissimilation: $V \rightarrow [-low] / _ C_0 \begin{bmatrix} -cons \\ +low \end{bmatrix}$
 - final-*a* raising, $\begin{bmatrix} V \\ -long \end{bmatrix} \rightarrow [-low] / _ \{=, \# \}$. The = boundary occurs in reduplication.
 - harmony: $V \rightarrow [-low] / \begin{bmatrix} -cons \\ +hi \end{bmatrix} C_0 _ C_0 \begin{bmatrix} -cons \\ +hi \end{bmatrix}$. Note that this rule contains no (=).
- Then, develop an OT analysis of the [a]~[e] alternations.
 - Finally, there are some problematic forms at the end of the data. If your analysis can accommodate them, great! But if not (mine can't without getting very ugly), just discuss the issues that they raise, for both the rule analysis and your OT analysis.

General notes and tips [see also below in the data]

- I've given Sohn's underlying forms, but you should feel free to challenge them.
- I'm giving you the real surface form, where final vowels undergo all kinds of reduction, in case it provides some inspiration for a better solution than what I came up with. But you only need to analyze the "intermediate" form, which suppresses various word-final vowel erosions.
- Sohn says: "[ü] and [wü] are in free variation. The motivation for setting up w will not be elaborated here." You can ignore the /w/→∅ changes.

Transcription notes (I copied Sohn's transcriptions, which are non-IPA)

- capital letters (I, E, etc.) are voiceless vowels.
- ü is a high central vowel. Judging from Sohn 1975, I think it's [+round]
- é is a mid central vowel. Judging from Sohn 1975, I think it's [+round].
- j is a glide (i.e., IPA [j])
- ɣ seems to be IPA [ɣ]

¹Sohn, Ho-min. 1972. *a*-raising in Woleaian. University of Hawaii *Working Papers in Linguistics* 3: 15-36.

I've also consulted Sohn's 1975 *Woleaian Reference Grammar*. Where the two sources disagreed on a transcription or underlying form, I went with Sohn 1975, particularly with respect to final vowels.

Possessed forms of nouns

- Ignore the /c/ → [š] change, here and throughout.

| | <i>underlying</i> | <i>intermediate</i> | <i>surface</i> | <i>underlying</i> | <i>intermediate</i> | <i>surface</i> |
|----------------------|-------------------|---------------------|----------------|-------------------|---------------------|----------------|
| | ‘eye’ | | | ‘drinking object’ | | |
| <i>X</i> | 1. /mata/ | mate | matE | | | |
| <i>my X</i> | 2. /mata+i/ | metai | metaj | 3. /wülüma+i/ | ülümei | ülümej |
| <i>your (sg) X</i> | 4. /mata+mu/ | metamu | metamU | 5. /wülüma+mu/ | ülümemu | ülümemU |
| <i>his/her/its X</i> | 6. /mata+la/ | metale | metale | 7. /wülüma+la/ | ülümale | ülümale |
| <i>our (incl) X</i> | 8. /mata+ca/ | metaše | metašE | 9. /wülüma+ca/ | ülümaše | ülümašE |
| <i>our (excl) X</i> | 10. /mata+mami/ | matemami | matemamI | 11. /wülüma+mami/ | ülümemami | ülümemamI |
| <i>your (pl) X</i> | 12. /mata+mii/ | metami: | metami | 13. /wülüma+mii/ | ülümemi: | ülümemi |

‘2’ things

- “?” after the UR means Sohn didn’t explicitly give the UR, but this is what I think he’s say.
- I assume there’s a voiceless vowel at the end of ‘2 flat pieces’, but I don’t know which one.
- /x/ becomes [g] between two voiced vowels.² You can ignore that, here and throughout.

| <i>underlying</i> | <i>intermediate</i> | <i>surface</i> | |
|--|-----------------------|-----------------------|------------------------|
| 14. /ruwa+xofeti/ ? | ruwagofeti | ruwagofetI | ‘2 pieces’ |
| 15. /ruwa+m ^w ëü/ ? | ruwam ^w ëü | ruwam ^w ëü | ‘2 groups’ |
| 16. /ruwa+ali/ ? | ruwa:li | ruwa:II | ‘2 skinny things’ |
| you don’t have to account for /aa/ → [a:]; presumably [aa] and [a:] sound the same | | | |
| 17. /ruwa+tabo/ | ruwetabo | ruwetabO | ‘2 halves’ |
| 18. /ruwa+ɲafa/ | ruweɲafe | ruweɲafE | ‘2 arm-lengths’ |
| 19. /ruwa+fawü/ | ruwefäü | ruwefäü | ‘2 round things’ |
| 20. /ruwa+fija/ | ruwefije | ruwefijE | ‘2 handfuls’ |
| 21. /ruwa+tipV/ ? | ruwetipV | ruwetipV | ‘2 flat pieces’ |
| the quality of the final V is unknown | | | |
| 22. /ruwa+wülü/ | ruweülü | ruweülÜ | ‘2 handfuls of leaves’ |

Reduplicated words

| <i>underlying</i> | <i>intermediate</i> | <i>surface</i> | |
|--|---|--|-------------------------|
| 23. /parasa/ | perase | perasE | ‘switch’ |
| 24. /parasa=rasa/ | peraserase | peraserasE | ‘splash-intransitive’ |
| 25. /ka=kaɲi+i/ | kekaɲi: | kekaɲi | ‘to be eating it’ |
| 26. /m ^w ara=m ^w ara/ | m ^w arem ^w are | m ^w arem ^w arE | ‘lei’ |
| 27. /m ^w ara=m ^w ara+li/ | m ^w arem ^w erali | m ^w arem ^w eralI | ‘lei of’ |
| 28. /xa+m ^w ara=m ^w ara/ | xem ^w arem ^w are | xem ^w arem ^w arE | ‘to put leis on’ |
| 29. /xa+m ^w ara=m ^w ara+a/ | xem ^w arem ^w era: | xem ^w arem ^w era | ‘to put the lei on him’ |
| 30. /lawü=lawü/ | laülaü | laülaü | ‘to deliver babies’ |
| 31. /fitija=tija/ | fitijetije | fitijetijE | ‘to marry each other’ |

² Although actually, Sohn transcribes this one as [x].

| | | | |
|-------------------|-----------|----------|-----------------|
| 32. /tapaŋi+a/ | tapaŋie | tapaŋi | ‘to help it’ |
| 33. /ta=tapaŋi+a/ | tetepaŋie | tetepaŋi | ‘to be helping’ |

Causatives

| <i>underlying</i> | <i>intermediate</i> | <i>surface</i> | |
|------------------------------------|---------------------------|--------------------------|--------------------|
| 34. /xa+b ^w u:toxo+a/ ? | xab ^w u:togoe | xab ^w u:togo | ‘to make him go’ |
| 35. /xa+tem ^w a:üwè+a/ | xatem ^w a:üwèe | xatem ^w a:üwè | ‘to make him sick’ |
| 36. /xa+laxo+a/ | xelagoe | xelago | ‘to make him come’ |
| 37. /xa+mm ^w acü+a/ | xe+mm ^w ašüe | xe+mm ^w ašü | ‘to hold him’ |
| 38. /raŋa=raŋa/ | raŋeraŋe | raŋeraŋE | ‘yellow’ |
| 39. /xa+raŋa=raŋa/ | xeraŋeraŋe | xeraŋeraŋE | ‘make yellow’ |
| 40. /xa+raŋa=raŋa+a/ | xeraŋereŋa: | xeraŋereŋa | ‘make it yellow’ |
| 41. /xa+pala=pala/ ? | xepalepale | xepalepalE | ‘sarong’ |
| 42. /tapaŋi+a/ | tapaŋie | tapaŋi | ‘to help it’ |
| 43. /ta=tapaŋi+a/ | tetepaŋie | tetepaŋi | ‘to be helping’ |
| 44. /xa+tapa=tapa/ | xetapetape | xetapetapE | ‘to support’ |
| 45. /xa+tapa=tapa+a/ | xetapetepa: | xetapetepa | ‘to support it’ |

Miscellaneous—check that your analysis so far can handle all of these

- In (54) and (55), Sohn says the = might not be there synchronically—i.e., these may actually be monomorphemic roots that just happen to look reduplicated. Your choice; it might not matter to your analysis.

| <i>underlying</i> | <i>intermediate</i> | <i>surface</i> | |
|-------------------------------------|-----------------------|-----------------------|-----------------|
| 46. /marama/ | merame | meramE | ‘moon’ |
| 47. /marama+li/ | maremali | maremallI | ‘moon of’ |
| 48. /wera=wera/ | werewere | werewerE | ‘thunder’ |
| 49. /wera=wera+li/ | werewerali | werewerallI | ‘thunder of’ |
| 50. /paab ^w ija/ | pa:b ^w ije | pa:b ^w ijE | ‘pig’ |
| 51. /b ^w uxuwa/ | b ^w uguwe | b ^w uguwE | ‘knee’ |
| 52. /waxa/ | waxe | waxE | ‘vein’ |
| 53. /jalüsa/ | jalüse | jalüsE | ‘sideburns’ |
| 54. /jaremata/ or /jara=mata/ | jaremate | jarematE | ‘person’ |
| 55. /jaremeta+li/ or /jara=mata+li/ | jaremetali | jaremetallI | ‘person of’ |
| 56. /jafara/ | jefare | jefarE | ‘shoulder’ |
| 57. /jafara+i/ | jaferai | jaferaj | ‘my shoulder’ |
| 58. /jafara+mami/ | jefaremami | jefaremamI | ‘our shoulders’ |
| 59. /jala/ | jale | jalE | ‘road’ |
| 60. /matawa/ | metawe | metawE | ‘sea’ |
| 61. /metaxo/ | metaxo | metaxO | ‘to be afraid’ |
| 62. /weri+xamami/ | werixemami | werixemamI | ‘see us (excl)’ |
| 63. /teraa/ | tera: | tera | ‘adze’ |

| | | | |
|------------------------|---------------|---------------------------|----------------------------|
| 64. /maŋaaxo/ | meŋa:xo | meŋa:xO | ‘clothes’ |
| 65. /xaraŋapa/ | xareŋape | xareŋapE | ‘bonito’ |
| 66. /le+ssaxa+li#laŋi/ | lessegalileŋi | lesseganneŋI ³ | ‘in the middle of the sky’ |

Problematic cases—if your analysis doesn’t capture them, discuss why

| <i>underlying</i> | <i>intermediate</i> | <i>surface</i> | |
|-------------------------|-----------------------------|-----------------------------|--------------------|
| 67. /raxi=raxi/ | ragirexi | ragirexI | ‘to line up’ |
| 68. /jala=lapa/ | jelalape | jennapE ⁴ | ‘road’ |
| 69. /xa+raŋa=raŋa+li/ | xeraŋereŋali ~ xareŋereŋali | xeraŋereŋall ~ xareŋereŋall | ‘making yellow of’ |
| 70. /xa+pala=pala+li/ ? | xapelepelali | xapelepelall | ‘sarong of’ |
| 71. /xa+tapa=tapa+li/ | xatepetepali | xatepetepall | ‘supporting of’ |

³ The /i/ deletes by a rule that deletes a vowel between identical laterals, nasals, or fricatives. Then there’s also a prohibition against [ll], so you get [nn] instead.

⁴ The second /a/ deletes by a rule that deletes a vowel between identical laterals, nasals, or fricatives. Then there’s also a prohibition against [ll], so you get [nn] instead.