

Assignment #4: Hakha Lai and process application

Due Oct. 28

Data from Hyman & VanBik¹

Directions

- Develop a rule-based analysis to account for the alternations in **tone**. You can incorporate constraints if you like, or not—it's up to you.
- Discuss issues of *rule application* if there are any cases where your rule's structural description matches more than one part of the form that the rule's trying to apply to. Does the rule apply simultaneously to all potential targets? Left-to-right or right-to-left?
- If there are cases where a rule is applicable to its own output, discuss what happens: does the rule apply iteratively or not?
- If any of your rules are actually rule schemata (containing abbreviatory conventions), and there are cases where more than one of the rules into which some schema expands could apply to a form, discuss what happens. Do all the subrules apply simultaneously, or is there ordering? If there's ordering, what's the order, and is it disjunctive or conjunctive?
- Depending on how you formulate your rules, you might not actually run into all of these issues (but I suspect/hope you'll run into at least some).
- You do not have to develop a full OT, but take an instance of one of the issues above and discuss how it would fare under an OT analysis of these data. For example, if one of your rules applies iteratively you could give a tableau for a relevant form to show that this is inevitable in the OT analysis. Or, if one of your rules applies non-iteratively you could give a failed tableau for a relevant form to show that this can't be captured straightforwardly in an OT analysis. Be sure to give a definition of the constraint(s) illustrated.

Notes and tips

- The data in 1-50 contain all the information you need to formulate your rules and determine the underlying representations. Then, 51-63 illustrate how those rules *apply* in more-complicated situations.
- The data here are restricted to “smooth” syllables (with one exception—see below), which can bear only three tones in this language: low (à), rising (ă), and falling (â).
- The only non-smooth syllable shown is the morpheme *ka* ‘my’, which is toneless (its pitch is determined by its environment). You don't need to analyze this morpheme's tone.
- Accounting for tone with linear representations (i.e., the representations we've been using) is awkward. My recommendation is to use the features [high start] and [high finish], and treat them as properties of vowels:

vowel with low tone	à	[-hi start]	[-hi finish]
vowel with rising tone	ă	[-hi start]	[+hi finish]
vowel with falling tone	â	[+hi start]	[-hi finish]

¹ I can give you the bibliographic information after the assignment is due.

Data

1. kân	‘our’
2. hmâ:	‘wound’
3. ka hmâ:	‘my wound’
4. zû:	‘beer’
5. ka zû:	‘my beer’:
6. lûŋ	‘heart’
7. ka lûŋ	‘my heart’
8. lâw	‘field’
9. ka lâw	‘my field’
10. tlâ:ŋ	‘mountain’
11. ka tlâ:ŋ	‘my mountain’
12. râ:l	‘enemy’
13. ka râ:l	‘my enemy’
14. kê:	‘leg’
15. ka kê:	‘my leg’
16. ?ô:	‘voice’
17. ka ?ô:	‘my voice’
18. hrôm	‘throat’
19. ka hrôm	‘my throat’
20. tsâl	‘forehead’
21. ka tsăl	‘my forehead’
22. kô:y	‘friend’
23. ka kô:y	‘my friend’
24. thlâ:n	‘grave’
25. ka thlă:n	‘my grave’
26. tsâ:n	‘time’
27. ka tsă:n	‘my time’
28. zâ:n	‘night’
29. ka ză:n	‘my night’
30. sà:	‘animal’
31. ka sà:	‘my animal’
32. hnì:	‘skirt’
33. ka hnì:	‘my skirt’
34. ràŋ	‘horse’
35. ka ràŋ	‘my horse’
36. kâl	‘kidney’
37. ka kâl	‘my kidney’
38. kò:m	‘corn’
39. ka kò:m	‘my corn’
40. bò:r	‘bunch’
41. ka bò:r	‘my bunch’

42. ka tlâ:ŋ zù:	‘my mountain beer’
43. ka tlâ:ŋ tsǎ:n	‘my mountain time’
44. ka tlâ:ŋ sà:	‘my mountain animal’
45. ka thlǎ:n zù:	‘my grave beer’
46. ka thlǎ:n tsâ:n	‘my grave time’
47. ka thlâ:n sà:	‘my grave animal’
48. ka kò:m zù:	‘my corn beer’
49. ka kò:m tsǎ:n	‘my corn time’
50. ka kò:m sà:	‘my corn animal’
51. ka kò:y ràŋ	‘my friend’s horse’
52. ka kǒ:y zâ:n ràŋ	‘my friend’s night horse’
53. kô:y zâ:n tsâ:n	‘friend’s night time’
54. ka kǒ:y zâ:n tsâ:n	‘my friend’s night time’
55. ka kǒ:y zâ:n tsâ:n ràŋ	‘my friend’s night-time horse’
56. zâ:n tsâ:n	‘night time’
57. kô:y hrôm	‘friend’s throat’
58. kân tlâ:ŋ zù:	‘our mountain beer’
59. râ:l làw hmâ:	‘enemy field time’ (prob. was supposed to be ‘enemy field wound’)
60. ka zǎ:n tsâ:n kô:y	‘my night-time friend’
61. kô:y hmâ:	‘friend’s wound’
62. ka kǒ:y hmâ:	‘my friend’s wound’
63. ka kǒ:y kê: hmâ:	‘my friend’s leg wound’