

## Problem #1: Ilokano

due in class Mon. 1/11

Ilokano is an Austronesian language spoken in the Northern Philippines and in emigrant communities. The data in this problem were elicited by me in the 1980's from May Abad, a UCLA undergraduate, and by May from her mother and her aunt. Published version: *Lingua*, 1989.

Ilokano has only two suffixes, *-an* and *-en*, which combine in some cases with prefixes to form circumfixes. For simplicity I have shamelessly altered the data to include only the suffix part of a circumfix.

|    |           |                            |                |   |
|----|-----------|----------------------------|----------------|---|
| 1. | [tulad]   | 'to mimic'                 | [tuladen]      | 'mimic-goal focus' <sup>1</sup>             |
|    | [gataŋ]   | 'to buy'                   | [gataŋen]      | 'buy-goal focus'                            |
|    | [taraj]   | 'to run'                   | [tarajan]      | 'place to run to'                           |
|    | [saŋit]   | 'to cry'                   | [saŋiten]      | 'to cause to cry'                           |
| 2. | [basa]    | 'to read'                  | [basa?en]      | 'read-goal focus'                           |
|    | [saka]    | 'foot, leg'                | [saka?an]      | 'place where one walks barefoot'            |
|    | [pja]     | 'health'                   | [pja?en]       | 'to make healthy'                           |
|    | [tʃjenda] | 'store'                    | [tʃjenda?an]   | 'marketplace'                               |
| 3. | [babawi]  | 'to regret'                | [babawjen]     | 'regret-goal focus'                         |
|    | [masahe]  | 'massage'                  | [masahjen]     | 'massage-goal focus'                        |
|    | [komadre] | 'godmother of one's child' | [pagkomadrjan] | 'the reason why there are <i>komadres</i> ' |
|    | [maneho]  | 'driver'                   | [manehwan]     | 'drive-goal focus'                          |
|    | [saŋo]    | 'front'                    | [pagsaŋwen]    | 'to cause to face forwards'                 |
|    | [santo]   | 'saint'                    | [pagsantwan]   | 'to make into a saint'                      |

Notes on segment inventory: the vowels of this dialect are /i, e, a, o, u/.

Assume the following about feature theory: the glide /j/ differs from the vowel /i/ **solely** in the feature [syllabic]. /j/ differs from /e/ in the features [syllabic] and [high]. The glide differs from the vowel /o/ in the features [syllabic] and [high]. Thus in an "SPE"-type approach, a simple analysis would be:

<sup>1</sup> Goal focus is a syntactic category roughly analogous to English passive.

**Glide Formation**

$$\left[ \begin{array}{l} +\text{syllabic} \\ -\text{low} \end{array} \right] \rightarrow \left[ \begin{array}{l} -\text{syllabic} \\ +\text{high} \end{array} \right] / \text{ \_\_\_ } [+ \text{syllabic}]$$

**Epenthesis** (ordered after Glide Formation)

$$\emptyset \rightarrow ? / [+ \text{syllabic}] \text{ \_\_\_ } [+ \text{syllabic}]$$

It's also useful to remember that in the great majority of languages, there is no glide that phonologically matches up with /a/, in the way that /j/ matches up with /i/ and /e/ and /w/ matches up with /o/ and /u/.

I suggest that before you begin your write-up, you read the accompanying handout giving my preferences (which aren't that unusual) on phonology problem writeups.

- a. What is the conspiracy here?
- b. Develop an Optimality-theoretic analysis of these forms, stating your constraints (with prose explication) and giving tableaux for all forms at the end of the homework. Put prose explanations for what is going on immediately after each tableau. Explain crucial constraint rankings.

The appropriate strategy here is to characterize Ilokano phonotactics in a coherent set of constraints, then specify how recalcitrant underlying forms (created by suffixation) are rendered compatible with the phonotactics, by ranking specific Faithfulness constraints low enough.

Be sure to include your grammar all Faithfulness constraints that get violated.

I have given a set of representative forms below which you may use as the basis of your analysis. Be sure to cover at least these. I also included a number of crucial ill-formed rival candidates for each output form; be sure to include enough constraints to rule out the ill-formed candidates given here. You might also like to be creative and think of other plausible candidates.

Phonetic symbols: [a̠], [e̠], and [o̠] are *glides* that are homorganic with the vowels /a/, /e/, and /o/, respectively. They differ from their corresponding vowels only in the feature [syllabic].

- c. Draw a "Hasse diagram" of the rankings you found (i.e. a diagram in which an arrow links the members of each necessarily-ranked pair).
- d. At least one of the candidates I provide below is *harmonically bounded*; i.e. can never win because it has a superset of the violations of another candidate (which is said to bound it). List a harmonically bounded candidate and a rival candidate that bounds it.
- e. The surface form \*[abut] would not be possible in Ilokano. Your analysis should guarantee this. Show how this works in your analysis by including an appropriate tableau.
- f. Occasionally May Abad would produce forms like [ma.sah.ɛ̠an] instead of [ma.sah.jan], and similarly with other mid-vowel stems like [maneh̠an] (but forms like /basa-en/ always came out with a glottal stop; never \*[bas̠ɛ̠en].) Sketch out a way that your grammar might be modified to

generate this free variation. Bear in mind that the variation is entirely free: Abad would produce one, then the other, more or less at random.

g. This is a more open-ended question. There are no forms in Ilokano that have [ɛ], other than forms like [ma.sah.ɛan], which are suffixed forms of stems ending in [e]. How might one exclude [ɛ] in monomorphemic forms?

|                 |   |
|-----------------|---|
| <b>Inputs:</b>  | /babawi-en/   |
| <b>Outputs:</b> | [ba.baw.jen]  |
| <b>Rivals:</b>  | *[ba.ba.wi.ʔen],<br>*[ba.ba.wi.en],<br>*[ba.ba.win], *[ba.ba.wen],<br>*[ba.baw.ɛen] |

|                 |   |
|-----------------|---|
| <b>Inputs:</b>  | /basa-en/   |
| <b>Outputs:</b> | [ba.sa.ʔen]   |
| <b>Rivals:</b>  | *[bas.ɛen], <sup>2</sup> *[ba.sa.en],<br>*[ba.sen], *[ba.san], *[ba.sa.ten] |

|                 |  |
|-----------------|--|
| <b>Inputs:</b>  | /masahe-an/  |
| <b>Outputs:</b> | [ma.sah.jan]   |
| <b>Rivals:</b>  | *[ma.sa.he.ʔan], *[ma.sah.ɛan],<br>*[ma.sa.he.an], *[ma.sa.han],<br>*[ma.sa.hen] |

<sup>2</sup> There are no instances of \*[ɛ] anywhere in Ilokano.