

Sonority Contour in Northern Philippine Languages

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Speakers of the Bayanin dialect of Ifugao exhibit a strong preference for words in which vowel sonority rises (e.g., *i...a* or *u...e*) or remains level (e.g., *i...u* or *e...o*), while they strongly disprefer words with falling vowel sonority (*a...i* or *e...u*). In preliminary field tests¹, Ifugao speakers were asked to come up with examples of words with all possible vowel combinations in the first two syllables. There was a strong tendency for the first vowel to be less sonorous than the second. Exceptions to this rule included only proper nouns and morphologically complex words. Anecdotal evidence in hand, we posed the research question: Is it the case that Bayanin Ifugao (and related Philippine languages) actually adopts such a sonority preference as a fundamental organizing principle of the phonology? If so, how can such a pattern be found, adequately described, and quantified?

Using text and lexical corpora from a dozen languages of the Philippines, we applied statistical tools to count the words of each sonority contour class: rising, falling, and level. A number of languages for which we analyzed corpora, including several dialects of Ifugao as well as Ilocano, Pampango and Kagayanen exhibited extremely strong and statistically significant preferences for vowel sequences with rising sonority. Figure 1 shows the breakdown by sonority contour in Kagayanen when vowel pairs within a word are considered only if their sonority level differs.

While graphs of the type in Figure 1 make counting simple, they do not provide any information about the relationship between variable sonority contours and level ones. In order to include level sonority in the typology, we compared the prevalence of each sonority contour to the expected number of words of that type given the vowel frequency distribution of the language in question. The new comparisons supported the claim that some languages exhibit a PHONOLOGICAL preference for rising sonority. The new tool was also discriminating enough to sort the languages into two more subtle classes: languages preferring rising sonority to falling sonority and having the expected number of words with level sonority (Amganad Ifugao, Figure 2), vs. those preferring level sonority to any other contour (Mayaoyao Ifugao, Figure 3). An additional class of languages showed no preferences.

¹ Harold C. Conklin and K. David Harrison, unpublished field notes, 2001.

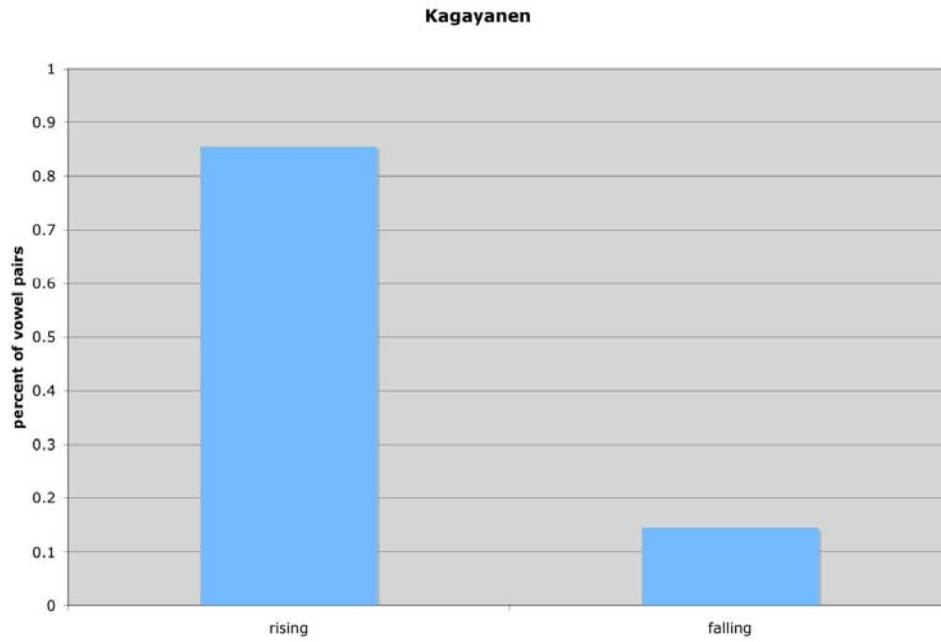


Figure 2

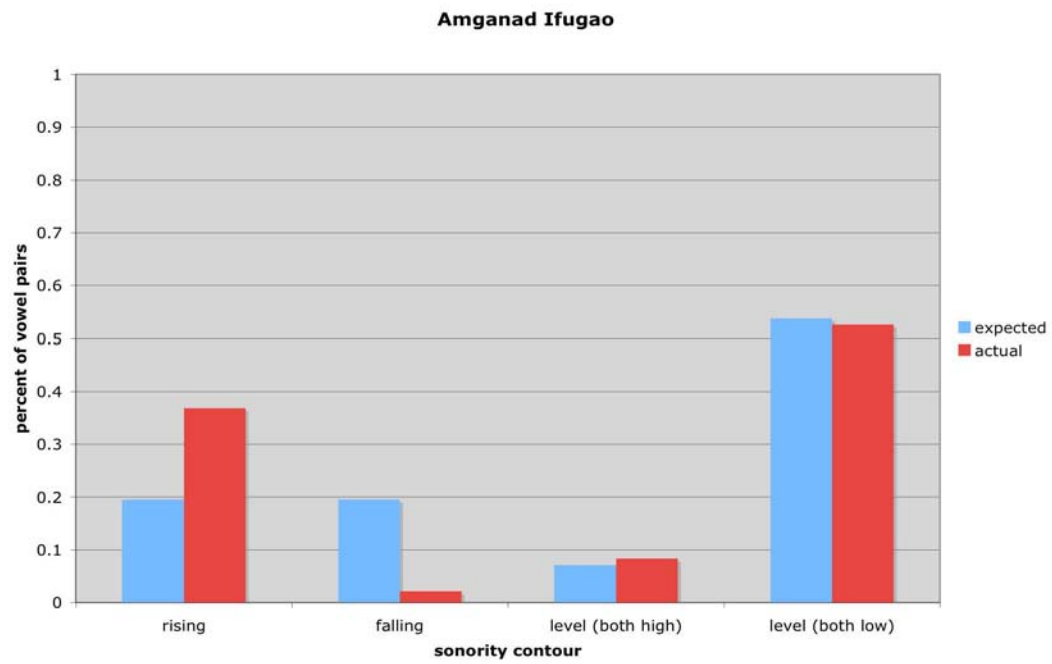
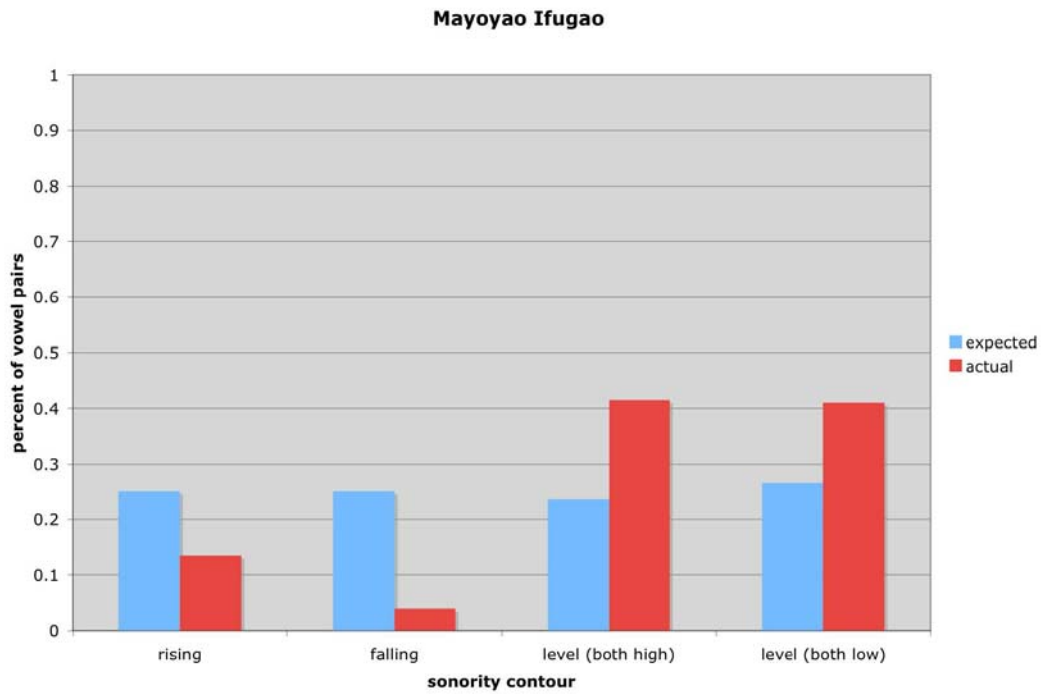


Figure 3



This presentation is devoted largely to a discussion of the challenges of applying statistical methods to the data presented above. Although it is easy to apply tests to data to determine whether attested patterns are statistically significant, no claim can be made about the link between statistical tests and speaker perception and acquisition without further linguistic and psychological research.

The observed sonority contours in Ifugao and other Philippine languages provide an ideal laboratory for testing probability-based models of pattern perception and learnability.