

How to Measure Real Pitch Jumps in Praat: An Example Study from Korean

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Pitch doubling and halving occur when the F0 pitch contour does not follow a consistent curve but rather ‘jumps’ in pitch are observed. Often these pitch jumps are deemed as pitch tracking ‘errors’, due to the initial seemingly inconsistent nature of the jumps. This phenomenon often co-occurs with creak, thus leading to further complications in automatic measurements in pitch-tracking software.

However, a visual investigation into Seoul Korean instead suggests that doubling and halving effects in ‘fortis’ plosives are not ‘errors’, but rather constitute an inherent characteristic of this kind of stops. Previous research often tried to ‘correct’ for such pitch tracking jumps by ignoring tokens below a certain F0 threshold, and as a result likely did not provide a complete overview. The ‘true’ pitch contour of Korean fortis stops can be established through adjustment of specific settings in Praat, upon which it becomes clear that Korean fortis stops often come with creaky voice and *true* pitch halving during the initial part of the following vowel.

We conclude that (1) pitch jumps should not automatically be assumed as software or measurement errors, (2) Praat is able to handle pitch jumps and visualize them systematically, and (3) selectively leaving out tokens to avoid pitch jumps is unnecessary and can even misrepresent the phonetic data.