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Acoustic properties of the interdental approximant in Kagayanen

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This paper describes the acoustic properties of the interdental approximant, a rare speech sound reported to date only in a dozen languages in the Philippines. The measurements analyzed here are based on recordings of one female speaker of Kagayanen. The interdental approximant exhibits acoustic characteristics typical of semi-vowels: the formant pattern is similar to that of vowels, and the formant transitions with adjoining vowels have a long duration, usually 35 ms or more. The values of F2 and F3 are analogous to those of the Kagayanen [l], a prototypical voiced alveolar lateral; the only significant formant value difference between the two sounds involves F1: the interdental approximant has a mean of 508 Hz (n=9), whereas the mean for [l] is 368 Hz (n=9). On the other hand, while these two segments sound impressionistically similar, the interdental approximant differs acoustically from [l] in several other respects as well: there is no abrupt change in the formant pattern at the junctures with adjoining vowels, the higher formants (F6 and above) are not reduced in intensity, and F3 is not enhanced in intensity compared to semi-vowels.