

## **Phonetic variation across three closely related Ju lects**

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*The number of contrasting click types in Ju languages (formerly known as the Northern Khoesan family) is very interesting because relatively few languages have such a large number of contrasting coronal stop consonants. We thus expect such contrasts to be even rarer in clicks. The IPA and Ladefoged & Maddieson's (1996:248) survey of click phonetics distinguish four types of clicks with coronal constrictions (not counting the bilabial ɸ). Ju languages, however, have sometimes been documented as having five contrastive coronal clicks (Doke 1925, Miller-Ockhuizen & Sands 2000). We present data collected in Namibia on three closely related Ju lects: Ju!'hoansi, Mangetti Dune !Xung and Grootfontein !Xung. We use palatography and linguography, described in Ladefoged (2003), to present results of contrastive clicks in these lects. Our palatography and linguography results show what part of the tongue and palate are used in making these clicks. We describe the phonetic variation across these lects, such as the laminal vs. apico-laminal difference which exists when producing words that have a dental click. We also describe the phonetic variation across speakers within these lects. Our findings differ from earlier literature. The word 'water' in Grootfontein !Xung is apical post-alveolar, which contrasts with Doke (1925)'s claim that it is sublaminal retroflex. Our findings underscore the need for more IPA symbols.*