

Cross-linguistic variation in Saterland Frisian vowels

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This study investigates the vowel space of trilingual speakers of Saterland Frisian, Low German, and High German. The three vowel systems show differences in the number of distinct categories but share the majority of vowel qualities. To examine whether the dispersion and size of the vowel space correlates with the number of vowel categories to enhance perceptual distance (c.f. *Theory of Adaptive Dispersion*, LINDBLOM 1986, LILJENCANTS & LINDBLOM 1972) speakers were instructed to read vowels of all three languages in a /hVt/ frame. Measurements of mid-vowel F1 and F2 and durations of monophthongs did neither reveal cross-linguistic differences in the size of the vowel spaces nor a positive correlation of dispersion with inventory size. Furthermore, Saterland Frisian and Low German monophthongs were found to be merged with respect to formant frequencies and durations. Only High German showed systematic differences in the phonetic realization of corresponding vowels. These results suggest that the trilingual subjects may use the same base-of-articulation (cf. Bradlow 1995) for Saterland Frisian and Low German but not for High German.

References

- BRADLOW, A., (1995). "A comparative acoustic study of English and Spanish vowels". *Journal of the Acoustic Society of America*, Vol. 97 (3), 1916-1924.
- LILJENCANTS, J. & LINDBLOM, B. (1972). "Numerical simulations of vowel quality systems: The role of perceptual contrast". *Language* 48, 839-862.
- LINDBLOM, B. (1986). "Phonetic universals in vowel systems". In: Ohala, J. & Jaeger, J. (eds.), *Experimental Phonology*. Orlando: Academic Press, 13-44.

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