## Mapping colour: BLUE category in Estonian

In order to visualize how informants divided and named 55 test stimuli, we used multidimensional scaling (MDS) solutions to create an empirical colour map from the data results of sorting and naming tasks.

In an exception to Berlin and Kay's universal colour-term theory Russian has two Basic Color Terms, *sinij* and *goluboj*. We examine the possibility that linguistic contact with Russian has destabilized the BLUE category in Estonian and elevated modified forms *hele-sinine* "light blue" or *tume-sinine* "dark blue" to 'basic' status. Free-sorting (grouping) and color-naming data were elicited from 39 Estonian subjects with varying bilingual fluency in Russian, who sorted 55 colour samples concentrated in the green-blue-purple neighbourhood of colour space. Free-listing data were also replicated. However, few participants created and named *hele-sinine* or *tume-sinine* groups in the free-sorting task. The consensus clustering and multidimensional scaling (MDS) solutions do not provide evidence for subcategories either. They indicate that participants were attending to lightness as a criterion for sorting, but delimiting their groups at varying lightness thresholds, so that the empirical colour map from MDS possessed a lightness dimension but was not polarized into concentrated groups of light or dark blue. In the colour naming task, *hele-sinine* did attain dominance, but so did two unequivocally non-basic terms *tumelilla* and *helelilla*, 'dark and light purple'.

Facility in Russian did significantly affect the participants' access to the modified terms – but in the opposite direction from that predicted by the hypothesis that linguistic 'intrusion' is creating an incipient subcategory. <u>Fewer</u> participants with some knowledge or second-language command of Russian used the modified terms than those with only basic knowledge. Overall, there was little evidence of the Estonian blue category splitting into sub-concepts.

## References:

- Borg, I., Groenen, P. J. F., & Mair, P. (2012). *Applied Multidimensional Scaling*. Springer-Verlag Berlin and Heidelberg GmbH & Co. K.
- Roberson, D., Davies, I. R. L., Corbett, G. G., & Vandervyver, M. (2005). Free-sorting of colors across cultures: Are there universal grounds for grouping? *Journal of Cognition and Culture*, 5(3), 349–386. Retrieved from http://epubs.surrey.ac.uk/1304/1/fulltext.pdf
- Uusküla, Mari. Forthcoming. "Linguistic categorisation of blue in Standard Italian," in *PICS2012*, C. P. Biggam, C. Hough, C. Kay and D. Simmons eds. (John Benjamins, 2013), pp. xx xx.