Actual similarity as a determinant for similarity perceptions in inflectional morphology

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Detecting familiar items or features in a formerly unknown language is the first step towards both comprehension and acquisition. Little, however, is known about the determinants of similarity perceptions and the process of detecting similarity.

The paper aims to shed light on the role of actual (surface) similarity in the process of perceiving similarity between Estonian and Finnish inflectional morphology. We report the results of a study comparing the actual similarity in terms of the Levenshtein Distance (LD) with the results of similarity perceptions measured by Perceived Similarity Index (PSI developed by the authors). The aim is to find out to what extent LD predicts perceived similarity.

A test of 48 word pairs was constructed to contain different levels of actual similarity between the languages in terms of LD. Two L1 groups (Estonian n = 109, Finnish n = 119) and two L2 groups with L1 Russian, L2 Estonian (n = 80) and L1 Swedish, L2 Finnish (n = 108) respectively were recruited for the study on similarity perceptions, all groups with no knowledge of and no exposure to the target language. To calculate PSI value the participants were asked to rate each pair of words as similar, somewhat similar, or not similar. Correlations between LD and PSI values were calculated and when significant, regression analysis was applied.

Significant correlations between LD and PSI were found in the results of Finns and Finnish Swedes, but not in the results of Estonians and Estonian Russians. The best predictor for the perceptions of Finns and Finnish Swedes was LD of morphological form as a whole (56 % and 66 % respectively). These results will be discussed in terms of pragmatic and paradigmatic L1/L2 awareness in the light of comments provided by the participants.

Keywords: Levenhstein Distance, Perceived similarity Index, cross-linguistic similarity, Estonian, Finnish.