Comparative Analysis of Conceptualisations of the Future in English, Russian and Georgian: Speech and Co-Speech Hand Gesture

Keywords Comparative analysis; gesture studies; corpus linguistics; multimodal analysis

Our paper compares linear conceptualisations of the future in oral communication in English, Russian and Georgian by focusing on speech and co-speech hand gesture using a corpus-driven analysis of ecologically valid media data. There are corpus studies on temporal co-speech gestures in English (Valenzuela et al. 2020) and Russian (Grishina 2017), but to the best of our knowledge, there are no studies on co-speech gestures in Georgian.

We researched depictions of the future through empirical data-driven analysis of TV talk-shows. Two coders annotated data (English, Russian Georgian) in ELAN (Wittenburg et al. 2006) for speech and co-speech gestural units marking future. Six categories of speech units were identified which mark future contextually for all three languages: 1) verbs in the "simple future" (future tense/*will*-future); 2) conditional clauses and counterfactuals; 3) modal verbs; 4) time expressions, including future expression, and expressions and adverbs marking future in the context; 5) verbs in the present tense with future references; 6) words with 'future' semantics.

We analysed: 138 speech and 231 gestural units for English; 54 speech and 65 gestural units for Russian, and 68 speech and 90 gestural units for Georgian. The majority of analysed instances were produced by one host with the assumption that her multilingualism did not influence the way she conceptualised the future in communication in a specific language (including gesture) (see Azar/Backus/Özyürek 2020). Nevertheless, we performed small-scale comparisons using speech-gesture occurrences by other hosts (native speakers of the languages under study) to check for potential interference between languages.

Our comparative analysis focused on the parameters of axis, direction and orientation of hand gesture co-occurring with speech 'future' units from the above-mentioned 6 categories. On these parameters it revealed no difference in how English, Russian, or Georgian speakers use co-speech temporal hand gestures in oral communication in TV shows. A particular gestural trait marking the future was found to be common to all three languages. We view this as a significant observation since English and Russian belong to different language groups and Georgian, unlike English and Russian, does not belong to the Indo- European language family.

The paper discusses the findings in the light of Kita/Özyürek's (2003) "Interface Hypothesis".

References

Azar, Zeynep/Backus, Ad/Özyürek, Asli (2020): Language contact does not drive gesture transfer: Heritage speakers maintain language specific gesture patterns in each language. In: Bilingualism: Language and Cognition 23, pp. 414–428.

Grishina, Elena (2017): Russkaya zhestikulyatsiya s lingvisticheskoi tochki zreniya. Moscow: Yazyki slavyanskikh kul'tur.

Haspelmath, Martin (1997): From space to time: Temporal adverbials in the world's languages. Munich/Newcastle: Lincom Europa.

Kita, Sotaro/Özyürek, Asli (2003): What does cross-linguistic variation in semantic coordination of speech and gesture reveal?: Evidence for an interface representation of spatial thinking and speaking. In: Journal of Memory and Language 48, 16–23.

Radden, Günther (2003): The metaphor TIME AS SPACE across languages. In: Zeitschrift für interkulturellen Fremdsprachenunterricht 8 (2/3), pp. 225–239.

Valenzuela, Javier/Pagán Cánovas, Cristóbal/Olza, Inés/Alcaraz Carrión, Daniel (2020): Gesturing in the wild: Evidence for a flexible mental timeline. In: Review of Cognitive Linguistics 18 (2), pp. 289–315.

Wittenburg, Peter/Brugman, Hennie/Russel, Albert/Klassmann, Alex/Sloetjes, Han (2006):. ELAN: A professional framework for multimodality research. *Proceedings of LREC 2006, Fifth International Conference on Language Resources and Evaluation*. Genoa, Italy: ELRA, 1556–1559.

Acknowledgements

This study was made possible thanks to AHRC-DFG research funding.