

Introducing the special issue: Empirical translation and interpreting studies

This special issue of the *SKASE Journal of Translation and Interpretation* is a thematic issue devoted to empirical translation and interpreting studies. It brings together a selection of eleven papers originally presented at the *Translation in Transition 2024* conference in Batumi, Georgia.

The special issue places particular emphasis on two directions: on the one hand, low-resourced and less-researched language pairs, which present unique challenges due to the scarcity of data and limited existing research, and, on the other hand, an interplay between different methods and data types. This special issue combines corpus-based product research with experimental process research in translation studies. Together, these directions aim to push the boundaries of translation studies by integrating innovative research methodologies.

The contributions of this special issue are grouped into four thematic sections. The first section, Machine Translation and further AI tools in Translation Studies, includes three studies that explore the role of machine translation and artificial intelligence in translation processes and outputs. They address questions of evaluation, simplification, and tool use across different groups of translators and learners.

Longhui Zou and **Ali Saeedi** compare GPT-4o and Google Translate using the American Translators Association (ATA) certification framework for English–Chinese and English–Arabic. Combining automatic evaluation with human assessment, their study shows how performance varies across systems and languages and highlights the value of human judgment in capturing nuanced issues such as idiomaticity and rhetorical expression.

Sarah Ahrens, **Silvana Deilen**, **Sergio Hernández Garrido**, **Ekaterina Lapshinova-Koltunski** and **Christiane Maaß** evaluate intralingual machine translation into Plain German in the health domain. By comparing MT outputs with human translations and original texts, they demonstrate that domain- and task-specific fine-tuning improves quality, while general-purpose systems such as ChatGPT perform less reliably.

Athanasios Breskas, **Silvia Hansen-Schirra** and **Dimitrios Kapnas** investigate how school pupils and university students use machine translation tools and AI systems like ChatGPT in translation tasks. Collecting keylogging data, they show that students deploy tools more strategically and effectively than pupils, underlining that language competence remains essential for evaluating and using AI outputs.

The studies in the second section, Cognitive Studies of Translation, examine how translators' behaviour, ideology, and directionality shape cognitive load and translation processes.

Michael Carl, **Takanori Mizowaki**, **Aishvarya Ray** and **Masaru Yamada** introduce the concept of a Behavioural Translation Style Space (BTSS), a hierarchical structure that maps observable behaviour such as gaze and keystroke patterns to higher-level cognitive and affective processes. The model also serves as a foundation for computational agents that simulate the temporal dynamics of human translation.

Fatemeh Parham and **Mina Mirzaee** investigate the potential effect of translators' ideology and cognitive abilities on cognitive load during the translation process. Using eye-tracking and pupil-diameter measures, they show both ideology and cognitive ability significantly influence average pupil diameter, suggesting that translators experience higher cognitive load when their ideological stance aligns with the translation brief, and when they possess higher cognitive capacity.

Zoë Miljanović, Fabio Alves, Celina Brost and Stella Neumann study directionality effects in English–German translation using keystroke-logged data. Their results reveal that translations into the L1 involve more extensive editing procedures than translations into the L2, while pause patterns vary by register.

The third section of this special issue consists of three corpus-based studies of translation.

Khatuna Beridze analyses image metaphors in two English translations of Shota Rustaveli's 12th-century Georgian poem. Drawing on, amongst others, cognitive linguistics and anthropology, she frames translation as cultural-cognitive evolution. The study contributes to Cognitive Metaphor Studies, as well as corpus-based Cognitive Translation Studies, situating translation as an act of cultural and cognitive evolution.

Mirela Imamovic, Silvana Deilen, Dylan Glynn and Ekaterina Lapshinova-Koltunski examine the translation of evaluative expressions from English to German in TED talk subtitles. Using Appraisal Theory and manual annotation, they find a general preference for equivalence in the translation of evaluative expressions, alongside signs of both “shining-through” from English and adaptation to German linguistic norms. Their study contributes to understanding the role of evaluative language in translation and complement existing research on translation strategies of evaluative language.

Olga Davis, Muhammad Ahmed Saeed, Dimitris Asimakoulas and Sabine Braun explore the under-researched practice of extended audio description. Combining natural language processing, qualitative user research, and think-aloud protocols, they show how so-called paused commentaries has the potential to offer a more informative viewing experience to conventional user groups and an opportunity to repurpose audio description as assistive commentaries for a wider range of audiences.

The special issue concludes with a section on interpreting.

Christina Pollkläsener, Maria Kunilovskaya and Elke Teich investigate the occurrence of filler particles in English–German interpreting. Their findings show that surprisal of following words is a good predictor of filler particles in interpreting.

The special issue winds up with a contribution by **Adeleh Mirzaee, Razavi Mousavi, Saeed Mir, Fatemeh Parham and Mehrdad Dadgostar**, who examine the impact of automatic speech recognition (ASR) on interpreters' cognitive load using fNIRS measures. Their results indicate that using ASR reduces processing effort compared to unaided interpreting, though interpreters' subjective perceptions do not always align with neural data.

The guest editors

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