

# Editorial: Simple and Simplified Languages

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## Editorial on the Research Topic

### Simple and Simplified Languages

Language has always powerfully influenced people's lives (e.g., Fairclough, 2001). This influence is even more forceful in the current era, the Information Age, in which language-based products are abundantly available and extensively used, with information and communication constantly increasing their impact on our daily lives.

Managing this abundance of written or spoken information may pose a considerable challenge for specific populations. Language simplification is crucial for individuals with cognitive or sensory disabilities, language minorities, and economically or socially disadvantaged populations (e.g., migrant workers), for whom it may remove barriers to inclusive, equal, and independent participation in society (e.g., Uziel-Karl and Tenne-Rinde, 2018). Recognizing the social value of simplified language has led legislators and human rights organizations worldwide to promote laws and regulations on language simplification, e.g., the UN Convention on the Rights of Persons with Disabilities<sup>1</sup>. The benefit of language simplification for the general public has also been recognized in movements promoting "plain English" or "plain language." These campaigns have sought to make content accessible beyond specific disciplines, fighting increased complexity associated with highly technical language in legal, financial, or medical documentation to make it more understandable to laypersons<sup>2</sup>.

The practical need for language simplification crosses time. Throughout history, the need for communication between speakers of different languages for trade or administrative purposes led to the development of pidgin languages. These would sometimes grow into creoles, becoming the first language of later generations<sup>3</sup>. Recent globalization trends and the prevalent use of the World Wide Web further highlight the necessity of language simplification for practical purposes like foreign language learning, language contact, and situations where technical vocabulary must be tightly controlled to promote cooperation<sup>4</sup>.

Keeping up with the growing demand for simplified materials and adapting language and text simplification to diverse populations and settings requires efficient and fast methods of bulk simplification. This challenge creates fertile ground for research in the field. The papers in this Research Topic offer a broad perspective on current language simplification research encompassing numerous populations, typologically different languages, and various methodologies, addressing theoretical and practical questions.

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<sup>&</sup>lt;sup>1</sup>The UN Convention on the Rights of Persons with Disabilities (CRPD). https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html (accessed March 18, 2022).

<sup>&</sup>lt;sup>2</sup>http://www.plainenglish.co.uk/about-us.html; https://www.plainlanguage.gov/

<sup>&</sup>lt;sup>3</sup>https://www.britannica.com/topic/language/Pidgins-and-creoles; and see Arends et al. (1994).

<sup>4</sup>http://www.asd-ste100.org

Yakpo examines creole prosodic systems from a typological perspective. The author argues that tone is not simplified or eliminated in creoles and contact languages. Instead, he proposes an areal continuum of tone systems roughly conterminous with tone in the east (Africa) and stress in the west (Americas). Kornai offers a way to determine the simplest "core" layer of vocabulary. He argues that a valuable notion of core vocabulary must synthesize both definitional simplicity (basic) and high occurrence (frequency) of a word. He recommends Kolmogorov complexity as the best formal means to integrate both aspects.

The next three papers discuss simplification in the context of non-verbal communication. Yum et al. examined whether Cantonese Chinese augmentative and alternative communication (AAC) users are sensitive to different types of communication partners during naturalistic AAC conversations. They describe differences in AAC users' strategies to communicate with peers vs. Speech and Language Pathologists. They suggest considering the base language and the communication partner in studies on graphic-based AAC. Savaldi-Harussi and Fostick studied the impact of graphic symbol modality on message construction. They compare verbal vs. graphic symbol production by Hebrew-speaking preschoolers. They demonstrate a significant difference in favor of verbal speech across different syntactic structures, concluding that graphic representation of complex linguistic structures requires explicit instruction. Astell et al. examined the efficiency of a non-verbal method of communication (Adaptive Interaction) in simplifying the interaction between caregivers and patients with dementia who can no longer speak. Their results suggest that non-verbal communication methods can streamline and improve caregiver-patient interaction.

The next four papers present various aspects of automated text simplification (Siddharthan, 2014). Dmitrieva et al. examined whether texts simplified for different learner groups are equally simple by investigating linguistic properties and specific simplification strategies used in Russian texts for three groups of primary school children (Native, Foreign, and Bilingual). They report that all text types are similarly accessible to young readers. However, different strategies are used for adapting or creating texts for each type of audience. Brunato et al. reviewed existing parallel corpora for Automatic Text Simplification (ATS)

in different languages. They used Italian parallel corpora to compare different approaches to corpus building for ATS based on the methodology employed for their construction (manual vs. (semi)-automatic). They show that construction method affects original and simple corpora and report on differences between two variations of the manual corpora. Ebling et al. created a gold standard of sentence alignments based on four parallel corpora (standard/simplified German) compiled for evaluating automatic alignment methods on this gold standard. They note that one alignment method performs best on most data sources. They use two corpora as a basis for a sentence-based neural machine translation approach toward automatic simplification of German. They then extend the model to operate on multiple levels of simplified German. Harbusch and Steinmetz developed a computer-assisted writing tool for an extended version of Easyto-Read German (LS) to enable LS readers to produce texts independently. They illustrate how to make dialogues of the automated tool intuitive and easy to use, reporting how well the software performs with different user groups.

Finally, Borghardt et al. examined how different online methods (eye-tracking, EEG, and fMRI) work in investigating the empirical validity of the Easy-Language guidelines by evaluating cognitive processing efficiency. They conclude that only examination of online methods combined with data triangulation in Easy Language research provides profound insights into the cognitive processing of simplified languages.

The papers presented here provide important insights into some major theoretical, technological, and practical questions in language simplification, and point to the challenges that still lie ahead.

## **AUTHOR CONTRIBUTIONS**

The author confirms being the sole contributor of this work and has approved it for publication.

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