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A Corpus-Based Study on the Lexical, Syntactic and Sequential Features across Interpreting Types

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Abstract : Among the various modes of interpreting, simultaneous interpreting (SI) is regarded as a 'complex' and 'extreme condition' of cognitive tasks while consecutive interpreters (CI) do not have to share processing capacity between tasks. Given that SI exerts great cognitive demand, it makes sense to posit that the output of SI may be more compromised than that of CI in the linguistic features. The bulk of the research has stressed the varying cognitive demand and processes involved in different modes of interpreting; however, related empirical research is sparse. In keeping with our interest in investigating the quantitative linguistic factors discriminating between SI and CI, the current study seeks to examine the potential lexical simplification, syntactic complexity and sequential organization mechanism with a self-made inter-model corpus of transcribed simultaneous and consecutive interpretation, translated speech and original speech texts with a total running word of 321960. The lexical features are extracted in terms of the lexical density, list head coverage, hapax legomena, and type-token ratio, as well as core vocabulary percentage. Dependency distance, an index for syntactic complexity and reflective of processing demand is employed. Frequency motif is a non-grammatically-bound sequential unit and is also used to visualize the local function distribution of interpreting the output. While SI is generally regarded as multitasking with high cognitive load, our findings evidently show that CI may impose heavier or taxing cognitive resource differently and hence yields more lexically and syntactically simplified output. In addition, the sequential features manifest that SI and CI organize the sequences from the source text in different ways into the output, to minimize the cognitive load respectively. We reasoned the results in the framework that cognitive demand is exerted both on maintaining and coordinating component of Working Memory. On the one hand, the information maintained in CI is inherently larger in volume compared to SI. On the other hand, time constraints directly influence the sentence reformulation process. The temporal pressure from the input in SI makes the interpreters only keep a small chunk of information in the focus of attention. Thus, SI interpreters usually produce the output by largely retaining the source structure so as to relieve the information from the working memory immediately after formulated in the target language. Conversely, CI interpreters receive at least a few sentences before reformulation, when they are more self-paced. CI interpreters may thus tend to retain and generate the information in a way to lessen the demand. In other words, interpreters cope with the high demand in the reformulation phase of CI by generating output with densely distributed function words, more content words of higher frequency values and fewer variations, simpler structures and more frequently used language sequences. We consequently propose a revised effort model based on the result for a better illustration of cognitive demand during both interpreting types.

Keywords : cognitive demand, corpus-based, dependency distance, frequency motif, interpreting types, lexical simplification, sequential units distribution, syntactic complexity
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