SENTENCE PLANNING IN L2: AN EYE-TRACKING STUDY

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Producing an utterance involves a series of complex operations, which requires the generation of preverbal message (message formulation), and then transforms it into linguistic representation through lexical selection and structural assembly (linguistic encoding) . Two leading theories of these processes-hierarchical incrementality and linear incrementality in L1 make different assumptions about these processes of message-to-language mapping. However, the coordination and real-time unfolding of these processes have received relatively little attention in L2 sentence production, despite their crucial role in achieving fluent speech during second language acquisition. Thus, this study is to examine how Chinese-English speakers plan their L2 utterances, focusing on their syntactic choices and fixation patterns using eye-tracking techniques.

We begin by employing visual cueing paradigm to examine the effect of visual salience on speakers' choices in picture descriptions. We calculate the difficulty of event apprehension (event codability) and the ease of character naming (character codability) to analyze the time course of message generation and structural assembly. Specifically, the event codability represents the difficulty of encoding relational information at message-level (action encoding, i.e. 0-400 ms) and sentence-level (verb encoding, i.e. 400-2000 ms). Character codability represents the ease of lexical retrieval at linguistic level. We also consider whether their L2 language proficiency would predict how they coordinate message-level and sentence-level encoding. In this study, participants completed a questionnaire about language history, LexTale test as well as The Oxford Test of English.

In sum, our findings indicate no significant effect of visual salience on the selection of syntactic choices between less proficient L2 speaker and more proficient L2 speakers. However, the analysis of eye movement across early and late time windows (pre - and post -400 ms) suggests that less proficient L2 speakers rely more relational information at both message level and linguistic level than more proficient L2 speakers. To conclude, speakers indeed prefer to separate message-level from sentence-level encoding and to prioritize encoding of relational information when planning L2 sentences, in line with hierarchical incrementality account. Furthermore, language proficiency was found to modulate this tendency, with higher proficiency associated with a shift towards a more linear incremental strategy.