

The Complexity–Accuracy Relationship at the Phrasal Level: Evidence from French Noun Phrases in Undergraduate L2 Writing

This study investigates the relationship between two central dimensions of second language performance – complexity and accuracy – within the CAF (Complexity, Accuracy, Fluency) framework, focusing specifically on noun phrases in written French. Within this framework, complexity refers to the range and sophistication of linguistic structures employed by learners (Ortega, 2003), while accuracy captures the extent to which language use conforms to target-like norms, typically measured through error-free production (Foster & Skehan, 1996). An important question in L2 research concerns the extent to which these dimensions interact. According to Skehan’s Trade-Off Hypothesis (Skehan, 2009), limitations in learners’ attentional and cognitive resources may constrain their ability to produce language that is both structurally complex and grammatically accurate at the same time.

While recent research has increasingly shifted from clausal to phrasal analyses – particularly toward the internal complexity of noun phrases – relatively few studies have examined the complexity–accuracy relationship at the phrasal level. In contrast, most research has examined this relationship at the clausal level (e.g., Skehan & Foster, 1997; Kuiken et al., 2005; Gunnarsson, 2012; Ferrari, 2012; Sample & Michel, 2014; Vercellotti, 2017). Moreover, existing work has predominantly focused on L2 English and intermediate to advanced learners, leaving lower-proficiency learners and other target languages understudied. This study addresses these gaps by examining NP development in L2 French across undergraduate learners with varying proficiency levels.

The data consist of 71 argumentative essays written under timed classroom conditions by students enrolled in a French language and literature program at the University of Belgrade. Participants include both learners with prior exposure to French and complete beginners. Lexical noun phrases were automatically extracted using the spaCy NLP library and subsequently analyzed for both structural complexity and morphosyntactic accuracy. NP complexity is operationalized through three measures: length (in words), number of modifiers, and degree of internal embedding. Accuracy is defined in terms of error-free noun phrases, while also taking into account the frequency and type of morphosyntactic errors, including determiner-noun agreement and adjective-noun agreement.

The study aims to determine (1) whether increased NP complexity is associated with gains or losses in accuracy, (2) whether this relationship varies across proficiency levels, and (3) whether different aspects of NP complexity show distinct relationships with accuracy. By focusing on French – a language with rich morphological agreement and syntactic constraints – this research contributes to a more nuanced understanding of the complexity–accuracy interface at the phrasal level. The findings contribute to our understanding of how complexity and accuracy interact in L2 development and may inform teaching practices that aim to promote more complex language use without compromising accuracy.

Keywords: complexity–accuracy trade-off, noun phrase complexity, morphosyntactic accuracy, L2 French writing, phrasal complexity

References:

- Ferrari, S. (2012). A longitudinal study of complexity, accuracy and fluency variation in second language development. *Dimensions of L2 performance and proficiency: Complexity, accuracy and fluency in SLA*, 32, 277-297.
- Foster, P., & Skehan, P. (1996). The influence of planning and task type on second language performance. *Studies in Second language acquisition*, 18(3), 299-323.
- Gunnarsson, C. (2012). The development of complexity, accuracy and fluency in the written production of L2 French. *Dimensions of L2 performance and proficiency: Complexity, accuracy and fluency in SLA*, 247-276.
- Kuiken, F., Mos, M., & Vedder, I. (2005). Cognitive task complexity and second language writing performance. *Eurosla yearbook*, 5(1), 195-222.
- Ortega, L. (2003). Syntactic complexity measures and their relationship to L2 proficiency: A research synthesis of college-level L2 writing. *Applied linguistics*, 24(4), 492-518.
- Sample, E., & Michel, M. (2014). An exploratory study into trade-off effects of complexity, accuracy, and fluency on young learners' oral task repetition. *TESL Canada Journal*, 23-23.
- Skehan, P., & Foster, P. (1997). Task type and task processing conditions as influences on foreign language performance. *Language teaching research*, 1(3), 185-211.
- Skehan, P. (2009). Modelling second language performance: Integrating complexity, accuracy, fluency, and lexis. *Applied linguistics*, 30(4), 510-532.
- Vercellotti, M. L. (2017). The development of complexity, accuracy, and fluency in second language performance: A longitudinal study. *Applied linguistics*, 38(1), 90-111.

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