How Learners' Native Language Affects Them When Learning a New Language Online

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Introduction

Learners' L1 affects their performance during L2 acquisition. This is primarily due to L1 interference, which is caused by the transfer of structures from the L1 to the L2.

This is pedagogically significant, as increased awareness of interference facilitates learning and aids in the design of educational tools.

Previous studies used limited samples, necessitating a large-scale study of the subject.

Methodology

The **EFCAMDAT**

- ESL learner corpus.
- Based on texts graded and marked for a variety of errors (grammar, punctuation, spelling, etc.)

Sample

- 7 native languages
- 55,631 learners
- 358,751 texts
- Proficiency range (CEFR): A1-C1

Errors

- Articles
- Plurality
- Prepositions
- Capitalization

Feature values were derived using the World Atlas of Language Structures.

Data Analysis

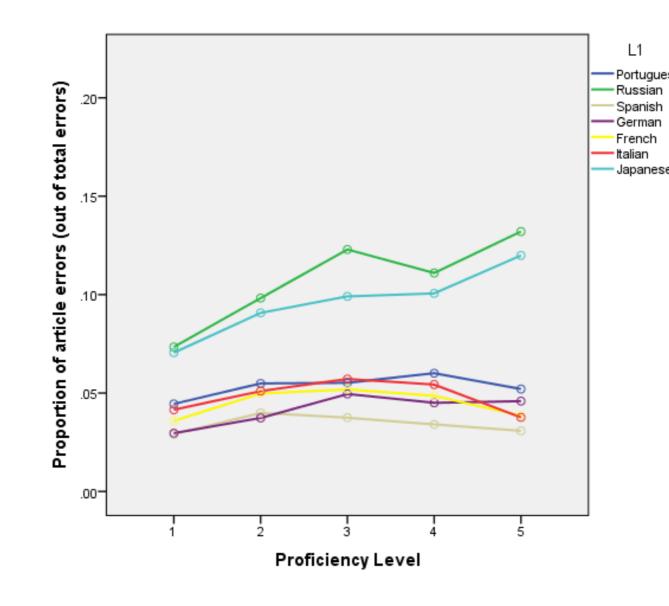
Difference in error proportion (out of all errors) per L1 and across proficiency levels.

Correlation between L2 proficiency and error proportion.

The results were contrasted with each L1s values for the features relevant to that error.

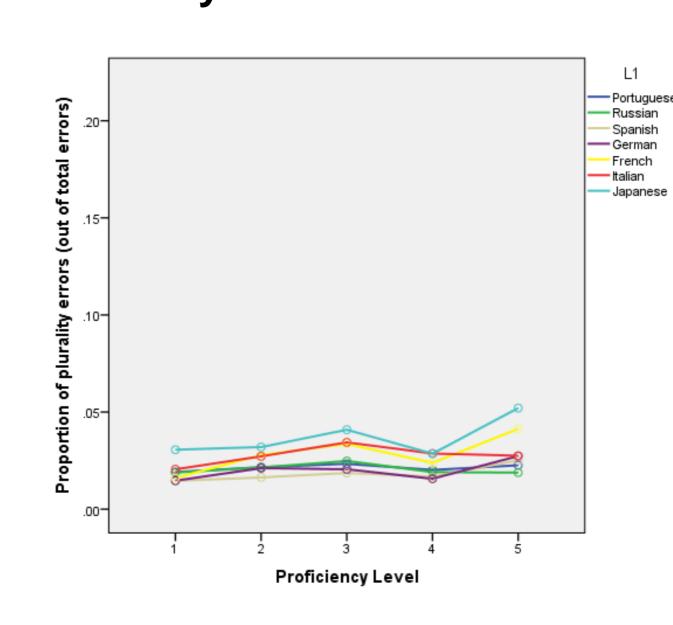
Results

Article Errors



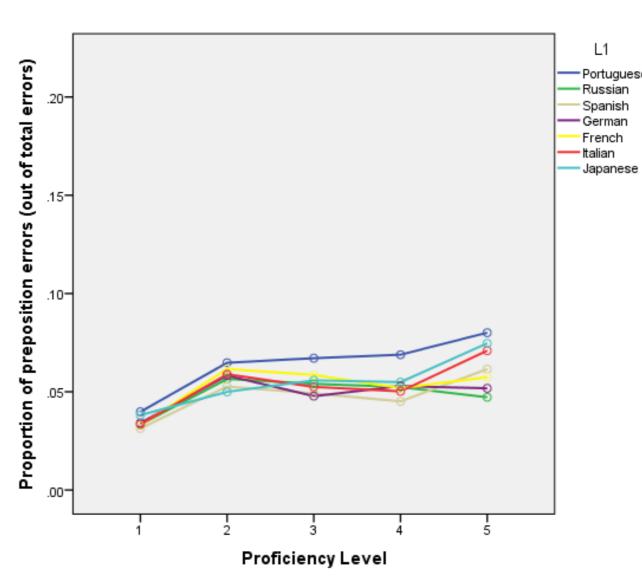
Feature	English	Portuguese, Spanish, German, French, Italian	Russian	Japanese
Definite articles	Distinct from demonstrative		None	None
Indefinite articles	Distinct from 'one'	Same as 'one'	None	

Plurality Errors



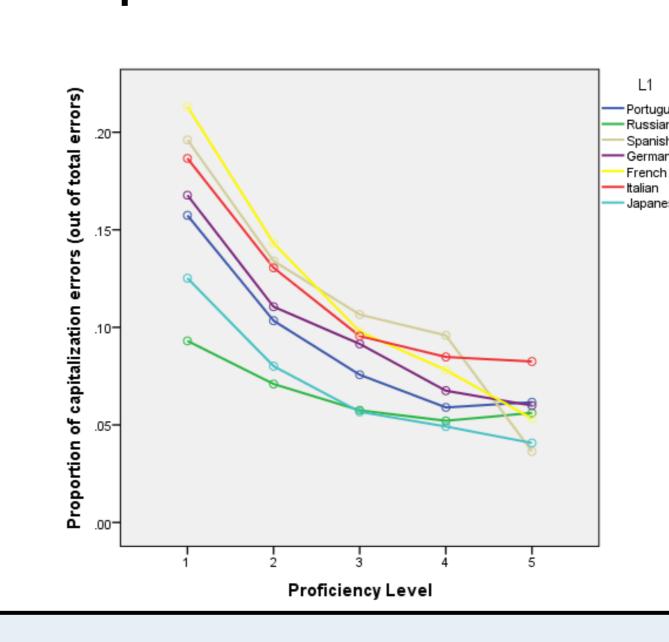
Feature	English	Portuguese, Italian	Russian, French	Spanish	German	Japanese
Coding of nominal plurality	Plural suffix					
Occurrence of nominal plurality	All nouns, always obligatory					Only human nouns, optional
Plurality in independent personal pronouns	Person- number stem	Missing value in WALS	Person- number stem + nominal plural affix	Person-number stem + pronominal plural affix		Person stem - nominal plura affix
The associative plural	No associative plural				Unique periphrastic associative plural	Associative same as additive plura

Preposition Errors



Feature	English	Portuguese, Russian, Spanish, French, Italian	German	Japanese
Order of adposition and noun phrase	Prepositions			Postpositions
Relationship between the order of object and verb and the order of adposition and noun phrase	VO and prepositions		Lacks a dominant order	OV and postpositions

Capitalization Errors



Feature	English	Portuguese, Spanish, French, Italian	German	Russian	Japanese
Script	Latin	Latin	Latin	Cyrillic	Mixed
Capitalization	Large number of word classes	To a smaller degree	All nouns	To a smaller degree	Appears in Romanized versions

Conclusions

Structural dissimilarity increases interference when relevant features in the L2 are absent from the L1. When this occurs, learners struggle with the subject even as their L2 proficiency improves.

However, structural similarity may also increase interference. When this occurs, learners cope well with the subject as their L2 proficiency improves.

Selected References

Bennui, P. (2008). A Study of L1 Intereference in the Writing of Thai EFL Students. *Malaysian Journal of ELT Research*, *4*, 72–104. Benson, C. (2002). Transfer / Cross-linguistic influence. *ELT Journal*, *56*(1), 68–70.

Bhela, B. (1999). Native language interference in learning a second language: Exploratory case studies of native language interference with target language usage. *International Education Journal*, 1(1), 22–31.

Biberauer, T., Holmberg, A., & Roberts, I. (2014). A syntactic universal and its consequences, *Linguistic Inquiry*, 45(2), 169–225.

Borin, L., & Prütz, K. (2004). New wine in old skins: A corpus investigation of L1 syntactic transfer in learner language. *Corpora and Language Learners*, 17, 67–87. Darus, S., & Ching, K. H. (2009). Common Errors in Written English Essays of Form One Chinese Students: A Case Study. *European Journal of Social Sciences*, 10(2), 242–

253.

Dryer, M. S., & Haspelmath, M. (2013). The World Atlas of Language Structures Online. Leipzig: Max Planck Institute for Evolutionary Anthropology.

Farghaly, A., & Shaalan, K. (2009). Arabic Natural Language Processing: Challenges and Solutions. *ACM Transactions on Asian Language Information Processing*, *8*(4), 1–22. Geertzen, J., Alexopoulou, T., & Korhonen, A. (2014). Automatic Linguistic Annotation of Large Scale L2 Databases: The EF-Cambridge Open Language Database (EFCamDat). In R. T. Miller & E. Al. (Eds.), *Selected Proceedings of the 2012 Second Language Research Forum* (pp. 240–254). Somerville, MA: Cascadilla.

Jiang, X., Guo, Y., Geertzen, J., Alexopoulou, D., Sun, L., & Korhonen, A. (2014). Native Language Identification Using Large, Longitudinal Data. In *Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC'14)* (pp. 3309–3312). European Language Resources Association (ELRA).

Lekova, B. (2010). Language Interference and Methods of Its Overcoming in Foreign Language Teaching. *Trakia Journal of Sciences*, *8*, 320–324.

Römer, U. (2009). The inseparability of lexis and grammar. Corpus linguistic perspectives. *Annual Review of Cognitive Linguistics*, *7*(1), 140–162.

Sersen, W. J. (2011). Improving Writing Skills of Thai EFL Students by Recognition of and Compensation for Factors of L1 to L2 Negative Transfer. *US-China Education Review*, 3, 339–345.

Yuan, H.-C. (2014). A Corpus-based Study on the Influence of L1 on EFL Learners' Use of Prepositions. *Theory and Practice in Language Studies*, 4(12), 2513–2521.