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Research Paper

## **Evidence for the Linguistic Proximity Model in the Learning of English** Present Perfect Tense by Speakers of L1 Kirundi and L2 French

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#### **Abstract**

Studies that have employed the Linguistic Proximity Model to account for cross-linguistic influence in third language learning so far have used child simultaneous bilinguals as participants in their research designs. This study investigated adult sequential Kirundi-French bilinguals to uncover factors driving cross-linguistic influence in learning L3 English present perfect tense using the same Linguistic Proximity Model as a theoretical framework. To achieve that goal, ninety participants including thirty L1 Kirundi, thirty L1 French, and thirty L1 Kirundi-L2 French learners of English were recruited. Those participants were selected using a stratified random sampling technique that took into account their linguistic backgrounds and their scores on the proficiency measure. Data were elicited using a background questionnaire, a quick placement test, a grammaticality judgment task, and a translation task. Descriptive statistics, independent-samples Kruskal-Wallis tests, analysis of variance, and multiple comparisons served in the data analysis. The results showed that simultaneous facilitative and non-facilitative cross-linguistic influence from French and Kirundi were operational at both lower and advanced stages of L3 development, with lower-proficiency learners experiencing negative influence from L1 Kirundi during production. These findings further support the Linguistic Proximity Model as an underlying theory for cross-linguistic influence in third-language learning. They can also serve as a guide in planning pedagogical activities for third language learners at differing stages of the target language development.

Keywords: Crosslinguistic Influence, Foreign Language Learning, Parsing, Temporal Category, Linguistic Transfer

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The process of third language acquisition (L3A) involves a complex dynamic system in the nature of the learner's language knowledge over time. Part of the complexity of that system is the fact that it involves a constant interaction of all languages known to the learner throughout the third language (L3) development process (Nizigama, Fazilatfar, & Jabbari, 2023). Different theories have been proposed in the literature to account for factors driving cross-linguistic interaction, also referred to as cross-linguistic influence (CLI). One of the most recently proposed of those L3A theories is the Linguistic Proximity Model (LPM). The LPM proposes a research design in which the experimental trilingual group is compared to two bilingual control groups to determine which of the learners' previously acquired languages drives CLI during the L3A. Previous L3A studies in which that design was used were conducted on child simultaneous or heritage bilinguals acquiring a subsequent language (Kolb, Mitrofanova, & Westergaard, 2022; Jensen, Mitrofanova, Anderssen, Rodina, Slabakova, & Westergaard, 2021; Westergaard, Mitrofanova, Mykhaylyk, & Rodina, 2017). Controversies persist (see Bardel & Falk, 2021) over the profile of participants recruited in those studies with some critics arguing that those participants were monolinguals learning a second language (L2) rather than bilinguals acquiring an L3. To address that issue related to the profile of participants, it is worth considering L3A research designs with adult sequential bilinguals acquiring an L3, which this study seeks to contribute. Furthermore, the LPM has so far been checked in L3A contexts that did not control for learners' target language proficiency when there is evidence in the literature that language proficiency is one of the factors that drive CLI among L3 learners (Cal & Sypiańska, 2020; Sharifi & Lotfi, 2019; Sikogukira, 1993). The present study takes that factor into account to assess its impact on the L3 learners' performance on the target structure. Finally, concerning language combination and properties, only four languages including English, Russian, German, and Norwegian have been used in the L3A studies that have checked the LPM framework so far. The present study uses a rarely considered language combination made of Kirundi L1, French L2, and English L3 to investigate CLI in the L3 learners' acquisition of the present perfect tense structure.

### **Review of the Literature**

### L3A transfer models: An overview

Different theoretical models have been proposed in the literature to account for factors that drive cross-linguistic influence in L3A. The most commonly known theories



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include the L1-based theory, the L2 Status Factor Hypothesis (L2SFH), the Cumulative Enhancement Model (CEM), the Typological Primacy Model (TPM), and the Linguistic Proximity Model (LPM).

According to the L1-based theory (Mollaie, Jabbari, & Rezaie, 2016; Hermas, 2014), the L3 learner's L1 plays an exclusive role in L3A as only the UG is believed to determine which previous language does or does not transfer in the L3. As far as the L2SFH is concerned, it predicts the learner's second language as the primary source of crosslinguistic influence in the third language learning at the beginning and subsequent stages of the L3 development (Bardel & Sanchez, 2017; Falk & Bardel, 2011; Bardel & Falk, 2007). The CEM (Berkes & Flynn, 2012; Flynn, Foley & Vinnitskaya, 2004) argues that only positive transfer into L3 happens in a property-by-property fashion from either L1 or L2 or both. It adds that learners' previously acquired languages whose properties are not supportive of the acquisition of the L3 input will remain neutral throughout the target language development. As for the TPM, it contends that the language the parser finds to be typologically the closest to the target language will be wholly selected to transfer into the L3 at only the initial stages of its development (Rothman, 2010, 2011, 2015). Finally, the LPM argues that simultaneous positive and negative CLI in L3A occurs in a property-by-property manner during the whole target language learning process with all the learner's previously learned languages being disposed of for transfer into the target language (Westergaard, 2021; Westergaard et al., 2017; Mykhaylyk et al., 2015).

### Relevant L3 research

Concerning the third language learning studies that employed the Linguistic Proximity Model in their research designs, we can mention Kolb, Mitrofanova, and Westergaard (2022); Jensen, Mitrofanova, Anderssen, Rodina, Slabakova, and Westergaard (2021); and Westergaard, Mitrofanova, Mykhaylyk, and Rodina (2017). Westergaard et al. (2017) employed the Linguistic Proximity Model to investigate crosslinguistic influence on two samples of participants who were simultaneous bilinguals in Norwegian and Russian learning English as a foreign language. The target structures included subject-auxiliary inversion and adverb placement in declarative sentences. The findings indicated that crosslinguistic influence occurred through learners' parsing for inputs from both previously acquired languages regardless of their typological properties.



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Jensen et al. (2021) researched Norwegian-Russian simultaneous bilinguals who were acquiring English at a mean age of 11.5. They investigated seven target properties that belonged to syntactic, morphological, and syntactic-semantic categories. The results revealed simultaneous facilitative and non-facilitative CLI from both Norwegian and Russian; this finding was found to be due to, among other things, the fact that learners' previously acquired languages presented differing scenarios regarding the structures under investigation.

Finally, Kolb et al. (2022) evidenced the Linguistic Proximity Model on Russian-German heritage bilinguals who were learning English as an additional language. The target properties included non-subject-initial declaratives, adverb placement, determiner use, and subject-auxiliary inversion. The last two properties were structurally similar across English and German while the other first two were structurally equivalents in English and Russian. The results indicated that structural proximity was the major predictor of cross-linguistic influence with both previously acquired languages simultaneously playing facilitative and non-facilitative roles in the target language development.

All the above-reviewed studies employed the Linguistic Proximity Model to account for structural proximity as the major driver of cross-linguistic influence in third-language learning. One other thing they have in common is the fact that they all used participants who were child simultaneous bilinguals learning English as a subsequent language, which makes some scholars such as Bardel and Falk (2021) advance criticisms toward them arguing that they fall in the realm of L2 acquisition research and, therefore, do not qualify as L3 acquisition studies. In the perspective of bridging the gap, this article intended to use the LPM in uncovering the factors that drive cross-linguistic influence in the acquisition of an L3 structure presenting conflicting scenarios (L2=L3≠L1) by adult sequential bilinguals. Furthermore, while, the reviewed studies that used the LPM did not control for target language proficiency, the present study aims to measure its effect on CLI. This study's target structure is the present perfect tense, while the target participants are learners of English with prior knowledge of Kirundi and French.

## Presentation of the target structure across English, French, and Kirundi

The merge operations in a constituent follow a generalization proposed by the Extended Projection Principle (Radford, 2009) where the complement C and its head sister H merge forming the intermediate projection H'. Furthermore, the intermediate

projection H' merges with its sister constituent, namely the specifier Spec, to derive the maximal projection HP as illustrated in Figure 1.

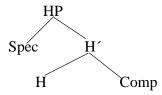


Figure 1. General theory of derivation in a phrase

The concepts of tense and grammatical aspects are used to express temporal relations. Tense is used for the characterization of the internal temporal properties of a situation, while the grammatical aspect is concerned with the temporal boundaries of that situation. Aspect defines a situation in terms of whether it is complete (perfective) or incomplete (imperfective). If we observe the general theory in Figure 1, we can argue that the tense and aspect in English are represented in the tense phase syntactically represented in Figure 2.

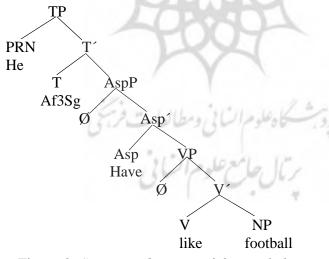


Figure 2. Syntactic diagram of the English present perfect tense

Our focus in this study is on cross-linguistic variation of the target structure, namely the present perfect tense. In English, the tense affix T attaches to the main verb, and *like* is the appropriate one in this case. As inflections in English are suffixed, the tense category becomes grammaticalized in the suffix position of the verb stem. Therefore, as

far as the present study's target structure (present perfect tense) is concerned, tense is grammaticalized through the singular third-person morpheme, which makes the aspect *Have* turn into *has* to derive the phrase *has liked*.

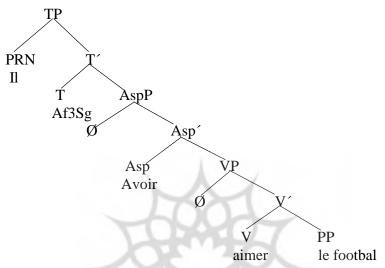


Figure 3. The present perfect tense in French with the aspect avoir: Syntactic tree

Concerning the present perfect tense in French, the third person singular present tense affix as shown in Figure 3 turns the aspect *avoir* into *a* to form the phrase *a aimé* 'has liked'. It is worth mentioning that, in French, some verbs are conjugated in the present perfect tense with the auxiliary *avoir* 'have' as an aspect as in Figure 3, while others take the auxiliary *être* 'be' as shown in Figure 4.

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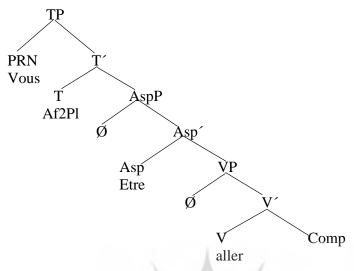


Figure 4. Representation of the present perfect tense in French with the aspect être

Speaking about the present perfect for verbs that go with the auxiliary *être* as aspect (see Figure 4), the grammaticalization of the tense category occurs through the second person plural pronoun *Vous* 'You' which turns the aspect *être* into *êtes* to form the structure *Vous êtes allés* 'You have gone'. With regard to the present perfect tense in Kirundi as can be seen in the sentence *Mutamvye cane* 'You have danced a lot' (see Figure 5), the tense (present) is morphosyntactically unmarked, thus the empty category symbol Ø in its position. Furthermore, the aspect in Kirundi is grammaticalized in the suffix position of the verb stem through the morpheme *ye*; in the sentence represented in Figure 5, the perfective aspect marker *ye* is moved to the suffix position of the verb *tamb* '(idea of) dance' to form the constituent *tamvye* 'have danced'. While verbs in English take an auxiliary verb to be conjugated in the present perfect tense, the same tense is achieved in Kirundi using only the main verb as seen in Figure 5.

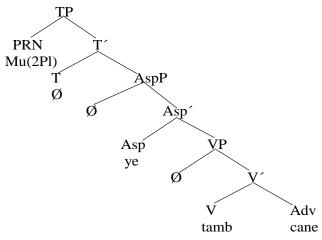


Figure 5. Representation of the Kirundi present perfect tense structure

Overall, the above cross-linguistic descriptions show that the present perfect tense has roughly the same structure in French and English while it shows a differing structure in Kirundi, thus the scenario L2=L3≠L1 in reference to the L3 learners.

### Research questions and predictions

The present research attempts to answer the questions below:

Question 1. Does learners' previous linguistic knowledge in Kirundi L1 and French L2 significantly influence their learning of L3 English present perfect tense?

Question 2. Is Kirundi L1, French L2, or both responsible for CLI in the learners' acquisition of the said tense?

Question 3. Does proficiency level significantly affect learners' acquisition of the L3 English present perfect tense?

The researchers initially set the predictions below in view of the cross-linguistic variation of the target structure:

Prediction 1. The French L1 group is predicted to outperform the Kirundi L1 group regarding the target structure ( $L2=L3\neq L1$ ), while it is expected to perform similarly to the L3 group. This suggests that the L3 group will benefit from the supportive influence of their French L2, and not their Kirundi L1, on their performance on the target structure. Therefore, the L2 Status Factor Hypothesis will win (through positive influence).



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*Prediction* 2. If lower proficiency learners in the L3 group produce this tense to a lesser extent than higher proficiency learners, in that case, the L1 Factor becomes a winner as non-facilitative CLI will be coming from Kirundi L1.

*Prediction 3.* Given that the English present perfect tense as acquired by the L3 group reflects the scenario L3=L2≠L1, that group is expected to perform similarly as the French L1 group on both grammatical and ungrammatical conditions, while both groups are predicted to have statistically higher mean scores than the Kirundi L1 group in both conditions. In other words, L3 learners will rely on their French L2 in parsing for items in both conditions. However, if lower-proficiency learners in the L3 group perform less than higher-proficiency learners on either grammatical or ungrammatical conditions or both, then negative influence from Kirundi L1 will be attested.

### Method

### **Participants**

Ninety male and female learners of English as a third language aged between 15 and 23 (M=17.7, SD=1.7) were selected as participants from Kings' School and Discovery School, both located in Bujumbura, Burundi. The participants were selected through the stratified random sampling technique considering their linguistic background and their scores on the English proficiency measure. In view of their responses to a background questionnaire, they were distributed across three language groups of thirty learners each, namely the Kirundi L1-French L2-English L3 group, the Kirundi L1-English L2 group, and the French L1-English L2 group. Based on their scores on the English proficiency measure, participants in each language group were found to belong to four proficiency levels: pre-intermediate, lower-intermediate, upper-intermediate, and advanced.

### **Instruments**

### The background questionnaire

The background questionnaire (BQ) adapted from Moghtadi (2014) was used to gather information about participants' demographics and linguistic backgrounds. This instrument, comprising fourteen items, allowed us to gather information that further helped categorize participants in the three language groups. The BQ was designed in the participants' native language in order to avoid any possible negative influence of weak foreign language proficiency on their ability to complete the instrument.



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### The quick placement test

Proposed by the University of Cambridge Local Examination Syndicate and the Oxford University Press, the 60-item quick placement test (QPT) has two main parts, namely the first part with 40 items which is done by all candidates, and the 20-item second part which is only reserved for candidates who complete the first part with ease, i.e., those who get 60% or above on it. The QPT was previously used by researchers in foreign language learning (e.g. Jabbari, Archardd-Bayle & Abrali, 2018; Jabbari, 2014; Tahriri & Yamini, 2012) who found it a reliable measure of English language proficiency. That instrument was used in the present study to help ensure the assumption of homogeneity with regard to general linguistic competence within groups.

### The grammaticality judgment task

The grammaticality judgment task (GJT) is a measure used to tap into participants' linguistic competence by prompting them to make judgments on the grammaticality and ungrammaticality of sentences (Schmid, 2011). It is among the research tools that have gained much popularity in language acquisition research and was previously used in studies such as Jensen et al. (2021), Westergaard et al. (2015), and Jabbari and Salimi (2015), among others. The GJT was used for the specific purpose of the present study as a measure of learners' ability to comprehend the target structure, namely the present perfect tense. It had fifteen items including ten target items and five distractors, with half of the target items, i.e. 5 items being grammatical while another half were ungrammatical. The sample tokens of the task were as follows:

Grammatical sentence token: He has worked in this company for twenty months.

*Ungrammatical sentence token*: He taught this course for twenty months.

Participants had to have a look at the items and state if the presented sentence was grammatical or ungrammatical.

To ensure the GJT's internal consistency reliability, we used the Cronbach alpha coefficient. The coefficient for the 10 target items was found to be .511 with a range for the inter-item correlation of .412. That coefficient was judged acceptable for the purpose of the present study in view of the considerations that follow. According to Pallant (2011, p. 97), Cronbach alpha coefficient should ideally be above .7. She adds: "Cronbach alpha values are, however, quite sensitive to the number of items in the scale. With short scales...it is common to find quite low Cronbach values (e.g. .5)". In case of low Cronbach



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values, an optimal range of .2 to .4 for the inter-item correlation is recommended (Briggs & Cheek, 1986).

### The translation task

The translation task (TT) was a production task aimed at measuring the impact of previous language knowledge in the production of the target structure. It consisted of 16 items including 10 target items and 6 distractors. For the Kirundi L1-English L2 group, participants were asked to translate the 16 items from Kirundi into English while the French L1-English L2 group had to translate the items from French into English. The trilingual group had to translate half of the items, i.e. 8 items comprising 5 target items and 3 distractors, from Kirundi into English, and another half from French into English.

### **Procedure**

Before presenting the instruments to participants, the authors had to get permission to collect data from the selected target schools (see *Section 4.1*). Thus, in the first week, the first author went to the two schools to seek their approval, which he was granted. He was also presented with an experienced school teacher who was to assist him during all the data elicitation sessions. After the permission was granted, the BQ was presented to participants in the second week. The data collected through that instrument allowed, among other things, to categorize participants in different language groups which later constituted independent variables during data analysis. During the third week, The QPT was presented to participants and took them 40 minutes to complete. As the QPT had 60 items, its total score was 60, which implies that the correct answer from learners scored 1 while the wrong answer scored 0. The participants' scores on this instrument were determinant in distributing them across different proficiency groups (see Table 1).

Table 1. *Participants as distributed into groups* 

	Pre-Interm	Lower-Interm	Upper-Interm	Advanced	Total
	group	group	group	group	
Kirundi L1 group	6	7	11	6	30
French L1 group	6	7	11	6	30
L3 group	6	7	11	6	30
Total	18	21	33	18	90



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During administering each of the instruments mentioned above, instructions were given to participants on how to complete the tasks in their native language. They were also encouraged to feel free when completing the tasks, as it was made clear that their scores in the presented tasks had nothing to do with their academic grades.

#### **Results**

Except for the TT data in the L3 group, which were analyzed using ANOVA because they were found to be normally distributed, the overall GJT and TT data were analyzed using the non-parametric Kruskal-Wallis statistics as they violated the assumption of normality: the p-value for the overall GJT was <.001 while the p-value for the overall TT was .005 (see Table 2).

Table 2. *Results of tests of normality* 

Tests	Kolmogorov-Smirnov		Shapiro-V	14		
	Statistic	df	Sig.	Statistic	df	Sig.
GJT	.193	90	.000	.904	90	.000
TT	.131	90	.001	.958	90	.005

### Results from the grammaticality judgment task (GJT)

### Effect of CLI on learners' performance in the GJT

The Kruskal-Wallis test was conducted on the scores from language groups to measure the effect of language group or CLI on the GJT scores. The results in Table 3 indicated that the overall mean scores of language groups on the GJT were highly statistically different (H(2)=24.122, p<.001).

Table 3. *GJT Results of the Kruskal-Wallis test by language groups: Test statistic* 

	GJT
Kruskal-Wallis H	24.122
df	2
Asymp. Sig.	.000

Based on this finding, the null hypothesis that crosslinguistic influence could not exert a significant influence in the learning of L3 present perfect by speakers of Kirundi L1 and French L2 during comprehension was not supported.



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## Comparing language groups' scores in the GJT

Kruskal-Wallis post-hoc tests were conducted between pairs of language groups to determine which specific groups were significantly different from each other. To prevent Type 1 errors, a Bonferroni adjustment to the alpha values was applied taking into account the number (3) of group comparison tests performed (see Table 4). Thus, a stricter significant alpha was set at .05/3=.017.

Table 4. Pairwise Comparisons of Language Groups on the GJT

Group 1-Group 2	Test Statistic	Std. Error	Std. Test Stat	istic Sig.	Adj. Sig.	
L1 Kirundi-L1 French	-25.117	6.627	-3.790	.000	.000	
L1 Kirundi-L3 Group	-30.483	6.627	-4.600	.000	.000	
L1 French-L3 Group	-5.367	6.627	810	.418	1.000	

The results displayed in Table 4 indicated that the Kirundi L1 group (M=5.60) was statistically different from both French L1 (p<.001) and L3 (p<.001) groups in the GJT while the L3 group (M=7.90) performed similarly as the French L1 group (M=7.60) in the same task (p=.418). This finding showed that the L3 group relied on French L2 knowledge rather than Kirundi L1 in learning English L3 present perfect tense.

## Effect of proficiency on the participants' scores in the GJT

Regarding proficiency level, the Kruskal-Wallis test was run to compare the scores of proficiency groups on the GJT. The results in Table 5 revealed that the overall mean scores of proficiency groups were largely statistically different (H(3)=19.425, p<.001). Based on this finding, the alternative hypothesis that target language proficiency could produce a significant influence on learners' acquisition of the English present perfect tense during comprehension was supported.

Table 5. *GJT Results of the Kruskal-Wallis test by proficiency groups: Test statistic* 

	GJT
Kruskal-Wallis H	19.425
df	3
Asymp. Sig.	.000

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## Comparing proficiency groups' scores in the GJT

Post-hoc tests were run between pairs of proficiency groups to identify which specific proficiency groups were significantly different from each other. To avoid the Type 1 errors, a Bonferroni adjustment to the alpha values was applied. Therefore, a stricter significant alpha of 05/6=.008 was set.

Table 6.

Pairwise Comparisons of proficiency groups on the GJT

Group 1-Group 2	Test Statistic	Std. Error	Std. Test Sta	ntistic Sig.	Adj. Sig.
PreInterm-LowerInterm	-4.238	8.244	514	.607	1.000
PreInterm-UpperInterm	-18.833	7.520	-2.504	.012	.074
PreInterm-Advanced	-33.028	8.555	-3.861	.000	.001
LowerInterm-UpperInterm	-14.595	7.164	-2.037	.042	.250
LowerInterm-Advanced	-28.790	8.244	-3.492	.000	.003
UpperInterm-Advanced	-14.194	7.520	-1.888	.059	.355

Given the results in Table 6 and also considering the Bonferroni-adjusted p-value of .008, we can realize that all the pre-intermediate and lower-intermediate (p=.607), pre-intermediate and upper-intermediate (p=.012), lower-intermediate and upper-intermediate (p=.042), and upper-intermediate and advanced (p=.059) pairs of groups performed similarly. However, the advanced proficiency group performed more highly than both the lower-intermediate (p<.001) and pre-intermediate (p<.001) groups. It was initially predicted that, if lower-proficiency learners in the L3 group scored significantly less than their higher-proficiency counterparts, then their Kirundi L1, rather than their French L2, would be driving negative CLI. To test the veracity of that prediction, the non-parametric Kruskal-Wallis statistics were run on the L3 group's GJT data given that the latter failed to meet the normality assumption: the p-value for the Shapiro-Wilk test was .014 (see Table 7) which supports the null hypothesis that the GJT data in the L3 group were not normal.

Table 7.

Tests of Normality of GJT data in the L3 group

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
GJT	.196	30	.005	.909	30	.014



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The results from the Kruskal-Wallis H test (Table 8) showed that the mean scores of proficiency groups in the L3 group were significantly different (H(3)=8.090, p=.044). A series of post-hoc tests were run to identify which specific groups were significantly different. A Bonferroni adjustment to the Alpha value was set at .05/6=.008 to prevent the Type 1 error from occurring.

Table 8. Kruskal-Wallis test on L3 groups'GJT data: Test statistic

	GJT	
Kruskal-Wallis H	8.090	
df	3	
Asymp. Sig.	.044	

Given that the significance was set at .008 after the Bonferroni adjustment, the post-hoc results (Table 9) indicated that no significant difference was reached between the different pairs of proficiency groups. Based on this result, it was concluded that the null hypothesis that lower-proficiency learners in the L3 group would not be significantly different from higher-proficiency learners in their scores on the present perfect tense was supported. Consequently, this finding allowed us to rule out the prediction that the Kirundi L1 would exert a negative influence on the learning of English L3 present perfect tense if lower-proficiency learners in the experimental (L3) group had a significantly lower performance than higher-proficiency ones on that tense.

Table 9.

L3 group's performance in the GJT: Pairwise comparisons of proficiency groups

Group 1-Group 2	Test Statistic	Std. Error	Std. Test St	atistic Sig.	Adj. Sig.
PreInterm-LowerInterm	-1.012	4.746	213	.831	1.000
PreInterm-UpperInterm	-9.129	4.329	-2.109	.035	.210
PreInterm-Advanced	-10.000	4.925	-2.031	.042	.254
LowerInterm-UpperInterm	-8.117	4.124	-1.968	.049	.294
LowerInterm-Advanced	-8.988	4.746	-1.894	.058	.349
UpperInterm-Advanced	871	4.329	201	.841	1.000

### Effect of grammaticality status of items on participants' scores in the GJT

The Kruskal-Wallis H test was run to check to what extent the grammatical and ungrammatical conditions affected learners' performance in the GJT. The results displayed in Table 10 indicated that the mean scores of the Kirundi L1 (M=3.00), French

L1 (M=3.80), and L3 (M=4.06) groups on the grammatical condition were significantly different (H (2)=12.169, p=.002). Furthermore, the scores obtained by the Kirundi L1 (M=2.60), French L1 (M=3.80), and L3 (M=3.83) groups on the ungrammatical condition were highly different (H(2)=18.650, p>.001).

Table 10.

Language groups' scores on grammatical vs. ungrammatical conditions: Kruskal-Wallis test Statistics

	Grammatical	Ungrammatical
Kruskal-Wallis H	12.169	18.650
df	2	2
Asymp. Sig.	.002	.000

The above findings allowed us to reject the null hypothesis that the grammatical and ungrammatical conditions could not significantly affect the learners' accuracy in their performance on the GJT. Considering the structural proximity between French and English concerning the present perfect tense, the L3 group was predicted to perform similarly to the French L1 group, and the two groups would outperform the Kirundi L1 group. In order to test the prediction and, therefore, determine the location of the significance, a series of Kruskal-Wallis pairwise comparison tests were conducted. A Bonferroni adjustment of the alpha value was applied, and a stricter alpha was set at .05/3=.017 to prevent the occurrence of Type 1 error.

Table 11.

Pairwise Comparisons of language groups on grammatical condition

	4.17		4 44		
Group 1-Group 2	Test Statistic	Std. Error	Std. Test Sta	tistic Sig.	Adj. Sig.
L1 Kirundi-L1 French	-15.550	6.508	-2.389	.017	.051
L1 Kirundi-L3 Group	-22.100	6.508	-3.396	.001	.002
L1 French-L3 Group	-6.550	6.508	-1.006	.314	.943

The results in Table 11 showed that the L3 group and the French L1 group had a statistically similar performance (p=.314) on the grammatical condition, while the Kirundi L1 group had a statistically lower mean score than both French L1 group (p=.017) and L3 group (p=.002) on the same condition.

Table 12.

Pairwise Comparisons of language groups on ungrammatical condition

Group 1-Group 2	Test Statistic	Std. Error	Std. Test Star	tistic Sig.	Adj. Sig.	
L1 Kirundi-L1 French	-23.650	6.512	-3.632	.000	.001	
L1 Kirundi-L3 Group	-25.000	6.512	-3.839	.000	.000	
L1 French-L3 Group	-1.350	6.512	207	.836	1.000	

Furthermore, results displayed in Table 12 revealed that the French L1 and L3 groups performed similarly on the ungrammatical condition (p=.836), while L1 Kirundi group had a highly significantly lower mean score than both French L1 group (p>.001) and L3 group (p>.001) on that condition. The above findings support the initially set prediction that the L3 group would behave similarly to the French L1 group and differently from the Kirundi L1 group on both grammatical and ungrammatical conditions.

The non-facilitative influence was further predicted in case lower-proficiency learners in the L3 group performed significantly less than higher-proficiency learners on either grammatical or ungrammatical conditions or both. To test that prediction, a Kruskal-Wallis test was run to compare the scores of proficiency groups in the L3 group on the grammatical and ungrammatical conditions. The results in Table 13 revealed that the mean scores of proficiency groups on the grammatical condition were statistically equal (H(3)=3.612, p=.307). Moreover, the same results (Table 13) showed that proficiency groups had statistically similar mean scores on the ungrammatical condition (H(3)=3.450, p=.327).

Table 13.

Proficiency groups' scores on grammatical and ungrammatical conditions in the L3 group: Kruskal-Wallis Test Statistics

		1 - 1 - 1 - 1 - 1 - 1	
	Grammatical	Ungrammatical	
Kruskal-Wallis H	3.612	3.450	
df	3	3	
Asymp. Sig.	.307	.327	

Based on the above findings from the GJT data, the predicted negative influence from Kirundi into the L3 was not supported as proficiency groups in the L3 group performed similarly on both grammatical and ungrammatical conditions.



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### **Results from the translation task (TT)**

## Effect of CLI on the learners' scores in the TT

A Kruskal-Wallis H test was launched to determine whether there was a difference between the mean scores of language groups in the TT. The results (Table 14) indicated that the overall mean scores of language groups on the TT were statistically different (H(2)=12.167, p=.002). Therefore, the alternative hypothesis that previous linguistic knowledge could have a significant effect on learners' production of the L3 English present perfect tense was supported.

Table 14.

Kruskal-Wallis test on the TT by Language groups: Test Statistics

	, , , , , ,
	TT
Kruskal-Wallis H	12.167
df	2
Asymp. Sig.	.002

## Comparing language groups' scores in the TT

To determine the location of the significance observed in Table 14, Kruskal-Wallis pairwise comparisons of language groups were performed. To prevent the occurrence of Type 1 error, a Bonferroni adjustment of .05/3=.017 to the alpha value was applied. The results in Table 15 indicated that the French L1 group (M=6.53) had a significantly higher mean than the Kirundi L1 group (M=5.00) in the TT (p=.003). The L3 group (M=6.57) also had a statistically higher mean than the Kirundi L1 group (p=.002), while it showed a statistically similar mean score as the French L1 group (p=.901) on the task.

Table 15.

Pairwise Comparisons of Language Groups on the TT

Group 1-Group 2	Test Statistic	Std. Error	Std. Test St	Std. Test Statistic Sig.	
L1 Kirundi-L1 French	-19.733	6.675	-2.956	.003	.009
L1 Kirundi-L3 Group	-20.567	6.675	-3.081	.002	.006
L1 French-L3 Group	833	6.675	125	.901	1.000

These results showed that the L3 and French L1 groups behaved similarly, while the two groups performed significantly differently from the L1 French group on the TT. In other words, French L2, rather than Kirundi L1, played a facilitative role in the L3 group's performance on the target structure. However, the research initially predicted that, if



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lower-proficiency learners in the L3 group had a statistically lower performance than higher-proficiency learners, the Kirundi L1 would negatively influence the L3 learners' performance in the TT. To test this prediction, a one-way ANOVA was performed on the L3 learners' scores to measure the effect of proficiency level on their performance. ANOVA was an appropriate test here because the TT data in the L3 group were found to be normally distributed with the Shapiro-Wilk test's p-value of .196. The ANOVA results (Table 16) revealed that the overall mean scores of proficiency groups were statistically different (F(3, 26)=8.208, p=.001).

Table 16. *ANOVA: Effect of proficiency level on the TT in the L3 group* 

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	57.090	3	19.030	8.208	.001
Within Groups	60.277	26	2.318		
Total	117.367	29			

Turkey's HSD Test for multiple comparisons (Table 17) indicated that the mean scores of the lower-intermediate and pre-intermediate groups (p=.380), the lower-intermediate and upper-intermediate groups (p=.051), the upper-intermediate and advanced groups (p=1.000), and the advanced and lower-intermediate groups (p=.123) were statistically equal. However, the pre-intermediate group had a statistically lower mean score than both the upper-intermediate (p=.001, 95% CI = [-5.51, -1.27]) and advanced (p=.004, 95% CI = [-5.74, -0.92) groups. Based on this finding, the prediction of the non-facilitative influence from Kirundi L1 in the L3 group was supported.

Table 17.

Multiple Comparisons: Effect of proficiency level on the TT in the L3 group

1 1	00 01	3.4	05% Con	95% Confidence Interval		
		Mean			93% COII	ndence interval
		Difference	e (I-		Lower	
(I) Proficiency	(J) Proficiency	J)	Std. Error	Sig.	Bound	Upper Bound
PreInterm	LowerInterm	-1.381	.847	.380	-3.70	.94
	UpperInterm	-3.394	.773	.001	-5.51	-1.27
	Advanced	-3.333	.879	.004	-5.74	92
LowerInterm	PreInterm	1.381	.847	.380	94	3.70
	UpperInterm	-2.013	.736	.051	-4.03	.01
	Advanced	-1.952	.847	.123	-4.28	.37
UpperInterm	PreInterm	3.394	.773	.001	1.27	5.51
	LowerInterm	2.013	.736	.051	01	4.03



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		Mean			95% Confidence Interval		
		Differenc	Difference (I-				
(I) Proficiency	(J) Proficiency	J)	Std. Error	Sig.	Bound	Upper Bound	
	Advanced	.061	.773	1.000	-2.06	2.18	
Advanced	PreInterm	3.333	.879	.004	.92	5.74	
	LowerInterm	1.952	.847	.123	37	4.28	
	UpperInterm	061	.773	1.000	-2.18	2.06	

## Effect of proficiency level on participants' scores in the TT

A Kruskal-Wallis H test was run to compare the mean scores of proficiency groups on the TT. The results (Table 18) showed a highly significant difference between the mean scores of the four proficiency groups (H(3)=28.963, p<.001). Based on the above finding, the null hypothesis stating that proficiency level could not significantly influence the learners' production of the L3 English present perfect tense was rejected.

Table 18. Kruskal-Wallis Test on the proficiency groups' scores in the TT: Test Statistics

	TT	
Kruskal-Wallis H	28.963	
df	3	Α
Asymp. Sig.	.000	W

## Comparing the performance of proficiency groups' scores in the TT

A Kruskal-Wallis test was run to determine the significance's location between pairs of proficiency groups. To prevent the occurrence of Type 1 error, a Bonferroni-adjusted p-value of .05/6=.008 was set. The results from the post-hoc test (Table 19) indicated that the scores of the lower-intermediate and pre-intermediate proficiency groups were statistically equal (p=.252). Likewise, the results demonstrated that the advanced and upper-intermediate groups had similar scores on the TT (p=.379). However, the upper-intermediate proficiency group had a statistically higher mean score than the lower-intermediate (p=.003) and pre-intermediate (p<.001) proficiency groups. The advanced proficiency group also scored statistically highly than both the lower-intermediate (p=.001) and pre-intermediate (p<.001) groups.



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Table 19.

Pairwise Comparisons of Proficiency Groups on the TT

Group 1-Group 2	Test Statistic	Std. Error	Std. Test Sta	Std. Test Statistic Sig.	
PreInterm-LowerInterm	-9.516	8.303	-1.146	.252	1.000
PreInterm-UpperInterm	-31.278	7.575	-4.129	.000	.000
PreInterme-Advanced	-37.944	8.617	-4.403	.000	.000
LowerInterm-UpperInterm	-21.762	7.216	-3.016	.003	.015
LowerInterm-Advanced	-28.429	8.303	-3.424	.001	.004
UpperInterm-Advanced	-6.667	7.575	880	.379	1.000

#### **Discussion**

With regard to the first research question as to whether previous linguistic knowledge was having a significant effect in L3A, the existence of CLI was confirmed as language groups showed a largely significant difference in their performance on both the comprehension (GJT) and production (TT) tasks. The research design put forward by the Linguistic Proximity Model for investigating CLI in the L3A contends that the experimental trilingual group is compared with two bilingual control groups, with the target language kept constant, in order to observe which subtracted language is driving CLI (Westergaard, 2021; Westergaard et al., 2022). Therefore, multiple comparison tests were run to identify which and to what extent specific groups were different from each other, and this was also in order to answer the second research question.

Concerning the second research question as to what was the source language for CLI, the prediction was made that positive cross-linguistic influence was going to come from French L2 during the English L3 learning process as the structure for the target tense, namely the present perfect, is the same in both French and English. This prediction was confirmed in both the GJT and TT data: the L3 group and the French L1 group behaved similarly on both the GJT and TT while the two groups performed significantly highly than the Kirundi L1 group, thus the facilitative influence from French L2 among L3ers. This finding was also confirmed in the analysis of language groups' accuracy scores on the grammatical and ungrammatical stimuli: Given the structural similarity between French L2 and English L3 with regard to the target structure(L2=L3≠L1), the grammaticality status (grammatical vs. ungrammatical conditions) of items was expected to affect CLI in view of that structural proximity. Therefore, it was predicted that the L3 group would behave similarly to the French L1 group and that the two would perform significantly more than the Kirundi L1 group on both grammatical and ungrammatical conditions. The results confirmed this prediction: L3ers were leaning on their French L2



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in their sensitivity to items in both grammatical and ungrammatical conditions. This implies that the grammaticality status of items had a significant effect in causing French L2-based CLI among L3 learners, which further supports instances of property-by-property CLI in the L3A based on the factor of structural similarity. These findings corroborate the argument by the LPM framework (see Westergaard, 2021, 2022) that structural similarity is the main determining factor of property-by-property-based CLI in the L3A. Non-facilitative CLI was further predicted in the GJT in case lower-proficiency learners in the L3 group would perform significantly less than higher-proficiency learners. No negative influence from Kirundi was observed on the GJT data, as there was no significant difference between proficiency groups in their performance on the task. The findings from the comprehension task (GJT) about the effect of CLI also fit the argument put forward by the Cumulative Enhancement Model, which supports exclusively facilitative CLI in the L3A whereby the language unable to transfer positively remains neutral (Flynn, Foley &Vinnitskaya, 2004; Berkes & Flynn, 2012).

However, with the TT data, Kirundi was observed to exert a negative influence among lower-proficiency learners since the latter had a significantly lower performance than higher-proficiency ones on the task. This finding suggests that CLI was affecting the L3A process differently depending on whether L3ers were faced with target language comprehension or production: while French L2 was a constant facilitator of CLI across both comprehension and production of the target language, Kirundi was found to remain neutral during target language comprehension, while it acted as a debilitative factor during target language production.

On the effect of proficiency in the L3A process, which is the concern of the third research question, the results from both the GJT and TT revealed a highly significant effect with higher-proficiency learners performing significantly highly than lower-proficiency ones. Evidence of the effect of target language proficiency was also observed in other L3A studies such as Ghezlou et al. (2019) though they did not specifically check the LPM in their research designs. The argument that L3 learners' accuracy in the target language increases as their proficiency grows higher, which was also found operational in Ghezlou et al. (2019), is supported by the present study's findings. Afhami and Khaghaninejad (2022), in their study that sought to uncover the effects of different types of explicit syntactic markers in sentence comprehension by Iranian EFL learners, also demonstrated the significant effect of language proficiency: they found that parsing for

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English as a foreign language input was associated with learners' proficiency level in the target language.

Overall, the findings in the present research revealed the existence of simultaneous facilitative and non-facilitative CLI from French and Kirundi at the low and advanced stages of the English L3 development, and these are characteristic features of the LPM as an explanatory model of CLI in the L3A process. Though the findings from the comprehension task, GJT, are obviously in support of the Cumulative Enhancement Model as it predicts exclusively property-by-property facilitative CLI from previously acquired languages, the overall results from both comprehension and production tasks (GJT and TT) are clear evidence for the LPM in the L3A. With regard to the effect of proficiency, while higher-proficiency learners were found to take advantage of their increased experience with the target language in order to strategically parse for its input, lower-proficiency learners, due to their reduced familiarity with the L3, were found to easily give in to the interference of Kirundi which reduced their sensitivity to cross-linguistic structural similarity during target language production.

## Conclusion

This research set out to uncover the factors that drive cross-linguistic influence in the learning of the English L3 present perfect tense by learners with prior knowledge in Kirundi L1 and French L2 and employed the L3A research design proposed by the LPM. While quantitative data analysis of both comprehension (GJT) and production (TT) data revealed the existence of facilitative CLI from French L2, lower-proficiency learners were found to experience a relative debilitative influence from L1 Kirundi during target language production. While the LPM's structural similarity is considered to be the main factor of CLI in L3A, this study provided empirical evidence that L3 learners' ability to detect that similarity and effectively make use of it in parsing for the L3 input may also depend on their proficiency in the target language.

The present study's findings add to the existing body of literature that provides evidence for the LPM as an explanatory model of CLI in L3A. They can also guide professionals in multilingual acquisition contexts who may find them useful when making decisions on imparting comprehension and production skills to learners with varying proficiency levels in the target language. While the effect of proficiency in both previously acquired languages is a factor worth measuring, this article did not check the influence of learners' proficiency in their L2 as all the investigated L3 learners had



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advanced knowledge in their French L2. Future L3A research checking the LPM would come up with even more interesting findings by including learners with varying proficiency levels in L2 and controlling for the effect of their interaction with target language proficiency. Future research may also find it interesting to employ designs with larger sample sizes as well as with different language combinations.

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## References

- Afhami, M. Khaghaninejad, M.S. (2022). The effects of different explicit syntactic marker types on sentence comprehension of EFL learners, TESL Quarterly, 41(3), 1-25. https://doi.org/10.22099/tesl.2022.43083.3098
- Bardel, C. and Falk, Y. (2007). The role of the second language in third language acquisition: The case of Germanic syntax. *Second Language Research* 23(4), 459–484. <a href="https://doi.org/10.1177/0267658307080557">https://doi.org/10.1177/0267658307080557</a>
- Bardel, C., & Falk, Y. (2021). L1, L2, and L3: Same or different? *Second Language Research*, https://doi.org/10.1177/0267658320941033
- Bardel, C., & Sánchez, L. (2017). The L2 status factor hypothesis revisited. *L3 Syntactic Transfer: Models, New Developments and Implications; Angelovska, T., Hahn, A., Eds,* 85-101.
- Berkes, É., & Flynn, S. (2012). Multilingualism: New perspectives on syntactic development. *The handbook of bilingualism and multilingualism*, 137-167. <a href="https://doi.org/10.1002/9781118332382.ch6">https://doi.org/10.1002/9781118332382.ch6</a>
- Briggs, S.R. & Cheek, J.M. (1986). The role of factor analysis in the development and evaluation of personality scales. *Journal of Personality*, *54*, 106–48. https://doi.org/10.1111/j.1467-6494.1986.tb00391.x

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#### EVIDENCE FOR THE LINGUISTIC PROXIMITY MODEL

- Cal, Z., & Sypiańska, J. (2020). The interaction of L2 and L3 levels of proficiency in third Language acquisition. *Poznan Studies in Contemporary Linguistics*, 56(4), 577-603. <a href="https://doi.org/10.1515/psicl-2020-0019">https://doi.org/10.1515/psicl-2020-0019</a>
- Falk, Y., & Bardel, C. (2011). Object pronouns in German L3 syntax: Evidence for the L2 status factor. Second Language Research, 27(1), 59-82. https://doi.org/10.1177/0267658310386
- Flynn, S.; Foley, C. and Vinnitskaya, I. (2004). The cumulative-enhancement model for language acquisition:
- Comparing adults' and children's patterns of development in first, second and third language acquisition. *International Journal of Multilingualism* 1(1):3–16. <a href="https://doi.org/10.1080/14790710408668175">https://doi.org/10.1080/14790710408668175</a>
- Ghezlou, M., Koosha, M., & Lotfi, A. R. (2019). Cross-Linguistic Influence in the L3 Acquisition of English Adjective Properties by Azeri-Persian Bilinguals. *International Journal of Instruction*, 12(1), 1299-1318. <a href="https://doi.org/10.29333/iji.2019.12183a">https://doi.org/10.29333/iji.2019.12183a</a>.
- Hermas, A. (2014). Multilingual transfer: L1 morphosyntax in L3 English. *International Journal of Language Studies*, 8(2), 1-24.
- Jabbari. A. A. (2014). Collocational differences in Persian and English and their effect on learners' production. International Journal of Educational Investigations, 1, 172-190.
- Jabbari, A. A., & Salimi, H. (2015). L3 acquisition of simple and present progressive tenses by Iranian EFL learners. *SAGE open*, *5*(4), 1-9. https://doi.org/10.1177/2158244015615163
- Jabbari, A. A., Achard-Bayle, G. & Ablali, D. (2018) Acquisition of L3 French wh-question structure by Persian- English bilinguals, Cogent Education, 5:1. https://doi.org/10.1080/2331186X.2018.1524551.
- Jensen, I. N., Mitrofanova, N., Anderssen, M., Rodina, Y., Slabakova, R., & Westergaard, M.(2021).
- Crosslinguistic influence in L3 acquisition across linguistic modules. *International Journal of Multilingualism*, 1-18. <a href="https://doi.org/10.1080/14790718.2021.1985127">https://doi.org/10.1080/14790718.2021.1985127</a>
- Kolb, N., Mitrofanova, N., & Westergaard, M. (2022). Crosslinguistic influence in child L3
- English: An empirical study on Russian-German heritage bilinguals. *International Journal of Bilingualism*. <a href="https://doi.org/10.1177/1367006921105">https://doi.org/10.1177/1367006921105</a>
- Moghtadi, L. (2014). The effect of bilingualism on the acquisition of English syntactic structures: evidence from relative clause. PhD dissertation, Isfahan Azad University
- Mollaie, A., Jabbari, A., & Rezaie, J.M. (2016). The acquisition of French (L3) wh- question by Persian (L1) learners of English (L2) as a foreign language: Optionality theory. *International Journal of English Linguistics*, 6(7), 36-47. <a href="https://doi.org/10.5539/ijel.v6n7p36">https://doi.org/10.5539/ijel.v6n7p36</a>
- Mykhaylyk, R., Mitrofanova, N., Rodina, Y., & Westergaard, M. (2015). The Linguistic Proximity Model: The case of verb-second revisited. In *Proceedings of BUCLD* (Vol. 39, pp. 337-349).
- Nizigama, E., Fazilatfar, A., & Jabbari, A. (2023). Motivation in Simultaneous Multiple Foreign Language Learning in Burundi: A Complex Dynamic Systems Theory Perspective. Teaching English as a Second Language Quarterly (Formerly Journal of Teaching Language Skills), 42(3), 147-169. https://doi.org/10.22099/tesl.2023.47924.3201

43(1), Winter 2024, pp. 29-57

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#### EVIDENCE FOR THE LINGUISTIC PROXIMITY MODEL

- Pallant, J. (2011). SPSS survival manual: A step-by-step guide to data analysis using SPSS (4<sup>th</sup> Ed.). Maidenhead: Open University Press/McGraw-Hill.
- Radford, A. (2009). *Analysing English sentences: A minimalist approach*. Cambridge University Press.
- Rothman, J. (2010). On the typological economy of syntactic transfer: Word order and relative clause high/low attachment preference in L3 Brazilian Portuguese. *IRAL-International Review of Applied Linguistics in Language Teaching*, 48(2-3), 245-273. https://doi.org/10.1515/iral.2010.011
- Rothman, J. (2011). L3 syntactic transfer selectivity and typological determinacy: The typological primacy model. *Second language research*, 27(1), 107-127. <a href="https://doi.org/10.1177/0267658310386439">https://doi.org/10.1177/0267658310386439</a>
- Rothman, J. (2015). Linguistic and cognitive motivations for the Typological Primacy Model (TPM) of third language (L3) transfer: Timing of acquisition and proficiency considered. Bilingualism: language and cognition, 18(2), 179-190. https://doi.org/10.1017/S136672891300059X
- Schmid, M. S. (2011). Language attrition. Cambridge University Press.
- Sharifi, M. M., & Lotfi, A. (2019). Relationship between Iranian EFL High School Students' Knowledge of Universal Grammar and their Performance on Standardized General English Proficiency Tests. *International Journal of Foreign Language Teaching and Research*, 7(28), 57-73.
- Sikogukira, M. (1993). Influence of Languages Other than the L1 on a Foreign Language: A Case of Transfer from L2 to L3. *Edinburgh working papers in Applied Linguistics*, 4, 110-132.
- Tahriri, A., & Yamini, M. (2012). On teaching to diversity: Investigating the effectiveness of MI-inspired instruction in an EFL context. *Teaching English as a Second Language Quarterly (Formerly Journal of Teaching Language Skills)*, 29(1), 165-183. <a href="https://doi.org/10.22099/jtls.2012.405">https://doi.org/10.22099/jtls.2012.405</a>
- Westergaard, M., Mitrofanova, N., Mykhaylyk, R., & Rodina, Y. (2017). Cross-linguistic influence in the acquisition of a third language: The Linguistic Proximity Model. *International Journal of Bilingualism* 21(6), 666–682. <a href="https://doi.org/10.1177/1367006916648859">https://doi.org/10.1177/1367006916648859</a>
- Westergaard, M. (2021). Microvariation in multilingual situations: The importance of
- property-by-property acquisition. *Second Language Research*, *37*(3), 379-407. <a href="https://doi.org/10.1177/0267658319884116">https://doi.org/10.1177/0267658319884116</a>
- Westergaard, M., Mitrofanova, N., Rodina, Y., & Slabakova, R. (2022). Full Transfer Potential in L3/Ln acquisition: Crosslinguistic influence as a property-by-property process. *The Cambridge handbook of third language acquisition and processing*.



Example:

## Teaching English as a Second Language Quarterly (TESLQ) (Formerly Journal of Teaching Language Skills)

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### **Appendices**

### I. Grammaticality Judgment Task

React on the grammaticality of the sentences below by ticking the correct option. For the ungrammatical sentence, provide its grammatically correct version as in the example below.

c. I don't know

#### If she meet you, she will be happy. a. grammatical b. ungrammatical ✓ c. I don't know 1. His father has worked in this school for ten years. a. grammatical b. ungrammatical c. I don't know 2. He taught at university for ten years. a. grammatical b. ungrammatical c. I don't know 3. It is difficult to pass an exam which you didn't prepare. a. grammatical b. ungrammatical c. I don't know 4. We have not cleaned the sitting room yet. a. grammatical b. ungrammatical c. I don't know

6. Daniel and John have studied in that university since 2018.

5. He already sent me my copybook.

a. grammatical

a. grammatical b. ungrammatical c. I don't know

b. ungrammatical

- 7. My best friend failed the national exam two times now.
- a. grammatical b. ungrammatical c. I don't know
- 8. The world may face many challenges in the future.
- a. grammatical b. ungrammatical c. I don't know
- 9. My high school friend and I haven't seen each other since 2015.
- a. grammatical b. ungrammatical c. I don't know
- 10. I owned this book since I was a small boy.
- a. grammatical b. ungrammatical c. I don't know

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#### EVIDENCE FOR THE LINGUISTIC PROXIMITY MODEL

- 11. Countries can learn from their differences to strengthen cooperation.
- a. grammatical
- b. ungrammatical
- c. I don't know
- 12. I have never repeated a class in my entire education.
- a. grammatical
- b. ungrammatical
- c. I don't know
- 13. Humans' motivations for war will always be a complex subject.
- a. grammatical
- b. ungrammatical
- c. I don't know
- 14. My brother watched this movie since he was in primary school.
- a. grammatical
- b. ungrammatical
- c. I don't know
- 15. Most of my siblings enjoy reading about philosophy.
- a. grammatical
- b. ungrammatical
- c. I don't know

#### **II. Translation Task**

#### From French into English

- 1. Ils sont venus pour une visite.
- 2. Pendant les vacances, j'irai visiter le nord du Burundi.
- 3. Nous avons fait tous les exercices.
- 4. Ils sont partis en vacances.
- 5. Il a déjà terminé ses études.
- 6. La lecture est importante pour développer son intelligence.
- 7. Nous avons eu de bonnes notes dans le cours de Français.
- 8. Pour mieux travailler, il faut aussi se reposer.
- 9. Il a déjà gagné plusieurs prix dans cette compétition.
- 10. Je voudrais voyager dans beaucoup de pays.
- 11. Ils sont devenus amis depuis longtemps.
- 12. J'ai obtenu de bonnes notes dans le cours de géographie.
- 13. Il est important de respecter les autres élèves.
- 14. Tu es devenu l'homme le plus célèbre de notre établissement.
- 15. Vous avez tous réussi à l'Examen d'Etat.
- 16. Nous viendrons vous rendre visite la semaine prochaine.

#### From Kirundi into English

- 1. Babaye mw'iyi nzu imyaka cumi.
- 2. Amazi ni ubuzima.
- 3. Abantu benshi bashitse ubu nyene.
- 4. Mutamvye neza.
- 5. Bamaze imyaka ibiri muri iri shirahamwe.

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### EVIDENCE FOR THE LINGUISTIC PROXIMITY MODEL

- 6. Abana bararyoherwa n'ugukina.
- 7. Iyi nzu ayubatse mu myaka itanu.
- 8. Kazoza gategurwa muri kubu.
- 9. Iyo ukoze neza urabishimirwa.
- 10. Mwige neza kugira muzoronke amanota meza
- 11. Anyoye amazi akanye cane.
- 12. Uvuze ikintu ciza cane.
- 13. Ugusoma birafasha mu guca ubwenge
- 14. Bashitse ubu nyene.
- 15. Bashitse mu kanya gaheze.
- 16. Gutembera bituma umenya utuntu n'utundi.

