

# The Challenges of Multilingual English Speakers Learning Catalan as a Third or Additional Language

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## Abstract

This study investigates the crosslinguistic influence (CLI) of various linguistic backgrounds of L1 English speakers on L3/Ln Catalan learning to better understand the acquisition of Catalan by English speakers. We analyzed 52 texts of learners from three different linguistic backgrounds: English-Spanish-Catalan (n=18), English-Spanish-Romance Language-Catalan (n=22), English-Spanish-Multiple Other Languages-Catalan (n=12), in order to explore the learners' written production in the target language (errors and tendencies). We analyzed different aspects of language production in writing: the linguistic aspects of errors, the modification types, intralinguistic causes, interlinguistic influences and communicative consequences (James 2013; Corder 1971; Ellis 2008). Results show various tendencies in terms of error types (linguistic aspects and modification types) depending on the learning path and previously learned languages. These results shed new light on the challenges of English speakers in the acquisition of minority languages such as Catalan.

## Keywords

multilingualism; crosslinguistic influence; minority languages; L2 learner corpora; Catalan

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## **Introduction**

Multilingualism can be perceived as an advantage in learning a third or additional language. However, in order for multilingualism to be beneficial, learners must be aware of and use their pre-existing linguistic and language learning knowledge (Haukås 2016). We know that in class, teachers tend to systematically correct all errors, while continually seeking more effective ways to support their learners (Arntzen et al. 2019). How can teachers prompt learners to use their linguistic background when learning a new language? Recent research has suggested that greater awareness of the associations between the languages learners already know could help them and their teachers to make more conscious, appropriate, and effective connections among languages in the classroom context (Orcasitas-Vicandi 2019). As a curriculum should be designed based on a needs analysis (Richards 2007) defined by the learners and situational needs, gaining more knowledge about the areas of language on which teachers could focus would be helpful. Furthermore, materials considering the learner's background in terms of languages previously learned are almost nonexistent for minority languages such as Catalan as opposed to other languages such as English and recent studies have highlighted a need to support minority language learners efficiently (Behney and Marsden 2021; Gujord 2021; Tracy-Ventura, Paquot, and Myles 2021). Considering all these factors, there is a need to support teachers in multilingual contexts in making effective decisions regarding aspects of the language they could focus on to increase their learners' level of proficiency and support language learning (Ferris 2008, 2010; Ferris et al. 2013). Therefore, this paper first describes the impact of multilingualism on

learning and the notion of crosslinguistic influence (the influence a known language may have on another language) on learning a third or additional language. Using the written production of intermediate learners of Catalan from different linguistic backgrounds, the study aims to better understand the acquisition of Catalan by English speakers with various linguistic backgrounds by exploring the different aspects of language production in writing, such as the linguistic aspects of errors, modification types, intralinguistic causes, interlinguistic influences, and communicative consequences (James 2013; Corder 1971; Ellis 2008). Teachers and minority language learners may be better equipped to face the challenges of learning in multilingual contexts by having a greater understanding of how previously learned languages can impact instructed learning settings.

### **The Impact of Multilingualism on Learning**

Knowing multiple languages can be advantageous when learning an additional language (Ln). A growing number of studies suggest that when learning an Ln, multilingual learners can take advantage of the direct transfer of prior knowledge and skills and the indirect influence of their multilingual backgrounds, such as metalinguistic awareness or orthographic network (Hirosh and Degani 2018).

In countries where a significant percentage of the population lives in a bilingual setting, there is a growing trend of multilingual school programs in which various languages are used to teach content (Lasagabaster 2017). Recent studies have highlighted an increasing interest in learning minority languages such as Catalan (mostly as a third or additional language) in the international academic community (Manuel-Oronich, Repiso-Puigdelliura, and Tudela-Isanta 2021; Tudela-Isanta et al. 2020). In bilingual settings, learning an additional language implies considering the linguistic background of learners. We also know that second language (L2) and third language (L3) learners differ significantly in terms of prior knowledge, that they have a different learning experience and that these factors will affect their acquisition processes (De Angelis 2007). However, in the field of second language acquisition, other factors may come into play and the study of the influence of a person's other known languages (crosslinguistic influence), as well as if and how the previously learned languages affect production in the target language when learning a third or additional language remains an under-researched area. This is especially true for the acquisition of minority languages such as Catalan. Supporting teachers' decisions regarding pedagogy and feedback in writing would promote learning, but more

research is needed to establish the links between research and practice as such studies are lacking in second language acquisition (Gironzetti and Koike 2016; Haukås 2016). In sum, there is a need to gain more insight into Catalan learning to support Catalan multilingual learners and teachers (Comajoan-Colomé 2021), especially in multilingual settings, considering that these learners are often multilingual learners. Recent research shows that university-level learners of Catalan master an average of 2.4 languages before learning Catalan (Tudela-Isanta et al. 2020).

### Crosslinguistic Influence and Third and Additional Language Learning

The concept of *crosslinguistic influence* (CLI) has been widely investigated in second language research. The notion of CLI between a speaker's languages refers to "the influence of a person's knowledge of one language on that person's knowledge or use of another language" (Jarvis and Pavlenko 2008, 1). According to this definition, CLI implies that the influence of language can occur in any direction as the L1 may potentially influence the L2 or an additional language. It also means that another language (Ln) known by the speaker may influence another Ln. Therefore, we can consider that the influence of a previously learned language may occur in any direction. As a result, in terms of CLI, we may suppose (1) that there is no transfer from previously learned languages, (2) that there will be transfer only from the L1, (3) that transfer may come from the L2, the L3, or (4) that transfer can come from any previously learned language.

Traditionally, the L1 has been identified as a factor that may influence or interfere in second language acquisition. Recently, Gujord (2021) identified three views of CLI in SLA research. The first view is known as "The traditional view." In this case, CLI involves transferring knowledge from one language, generally a previously learned language such as the L1, to the second language. The interlingual connections made by learners are generally considered unconscious mental associations between features of languages (Ringbom 2007). The second view considers CLI to be a communicative strategy. CLI is perceived as a tool that learners utilize temporarily when they lack knowledge of the target language (Alonso Alonso 2002; Jarvis and Pavlenko 2008). The final view defines transfer as "inert outcome" (Jarvis 2000, 250). Within this view, the "transfer effect arises from the learner's exhibition of a specific knowledge base when the learner has not made any

interlingual identification or conscious comparison of the languages in question” (Gujord 2021, 346). This knowledge base refers to the linguistic structure and information organization found in the language’s structural properties, such as organizing, conceptualizing, and verbalizing in the target language.

In sum, there are different views on investigating the role of previously learned languages in language learning. CLI can be positive or not; it can cause errors; the transfer can be facilitative or non-facilitative, as a new language may also influence a previously learned language, and the influence can occur in any direction (Herdina and Jessner 2002; Jessner 2008).

### Errors and Crosslinguistic Influences

Errors in the target language are used to better understand the underlying cognitive processes in language learning. Errors are sometimes associated with CLI of previously learned languages. As a result, error analysis (EA) has been used in second language learning research to investigate CLI and identify learners’ underlying mechanisms and strategies to understand the cause of errors to support learning.

The concepts of *errors* and *mistakes* have been distinguished in second language research by Corder (1967). He defined the concept of *errors* as deviations from the norm and *mistakes* as non-systematic errors due to various factors such as fatigue. Selinker (1972) coined the term *interlanguage* to refer to learners’ linguistic system when expressing meanings in the target language. The interlanguage would be distinct from the L1 and the target language while simultaneously being related to both systems. Classifying errors would help researchers to understand CLI. Díez-Bedmar (2021) suggested that the classification of errors can be done by using an error-tagging system and a combination of four-way classification: (1) the linguistic category of errors, (2) the taxonomy of errors (omission, addition, misselection, and misordering), (3) the taxonomy of the cause of errors, and (4) the communicative consequence.

In second language learning research, various models have been used to explain CLI, such as the Absolute L1 transfer, suggesting that the L1 would be the primary source of transfer in L3/Ln language learning (e.g. Bley-Vroman 2009; de Bot 2004; Hermas 2010). Another model called the L2 status factor hypothesis suggests that the second language would be more active in L3/Ln language learning as it would share more features with a third or additional language than the L1 (e.g. De Angelis and Selinker 2001; Falk and Bardel 2011; Williams and Hammarberg 1998). On the other

hand, the Cumulative-Enhanced Model (CEM) claims that all previously learned languages would be available for transfer to facilitate the acquisition of an L3 feature (e.g. Berkes and Flynn 2012; Flynn, Foley, and Vinnitskaya 2004), while the Typological Primacy Model (TPM) (García Mayo and Rothman 2012; Rothman 2011; Rothman and Cabrelli Amaro 2010) suggests that typological proximity will influence the transfer. In the last decade, new theories such as the Scalpel Model of Third Language Acquisition (Slabakova 2017) and the Linguistic Proximity Model (Westergaard et al. 2017) consider typological proximity to explain the CLI as well as the influence of all the other languages a learner knows. As a result, recently, there seems to be a consensus to consider the CLI of any previously learned language in subsequent language learning, highlighting the influence of transfers from both the L1, the L2, or from any previously learned language for L3/Ln acquisition. Assuming that the influence of language can occur in any direction, in this study, we consider that L1 may influence L2 or another language, but also that any previously learned language (for example, L2) may also influence subsequent language learning.

### **Crosslinguistic Influences and Multilingualism**

Studies on CLI of previously learned languages to support teachers' pedagogy and feedback in writing are scarce. Studies have shown that third or additional language acquisition differs from second language acquisition (De Angelis 2007) as learners do not rely only on one but on several systems of linguistic representation when learning an L3/Ln. Studies in the last decades have also shown that the interlanguage, the cognitive space between the L1 and the language being learned (Selinker 2014), might be different for the L2 and the L3; the source of transfer varies in these two situations (Perić and Mijić 2017). In a meta-analysis of 71 studies by 48 researchers investigating CLI on L3/Ln acquisition, Puig-Mayenco and his colleagues found that 92.5% of studies highlighted facilitative and non-facilitative transfers from previously learned languages (Puig-Mayenco et al. 2020).

Recently, to better understand CLI, research has focused on exploring when transfers occur and which areas of language are involved in the phenomenon. Certain variables have been identified to explain CLI and their roles in L3/Ln language learning, such as typological proximity (similarity between languages), level of attainment or proficiency level (in previously learned languages and in the target language), recency effect (exposure to the language), and

learning mechanisms (González Alonso et al. 2017; Perić and Mijić 2017; Puig-Mayenco et al. 2018; Salaberry and Kunitz 2020).

Traditionally, relatedness (language families) and formal similarities (similarities between language components) have also been pointed out as factors influencing CLI (De Angelis 2007). Individual factors, such as working memory, language aptitude, the L1, or even the initial level in the target language (Gagné et al., 2022), may also come into play and influence language learning. Another aspect to consider in instructed second language learning contexts is the role of the instructed environment. Depending on the learning context in which learning occurs, the nature of input or the kinds of interactions in which learners participate may impact learning (Cremades Cortiella 2021; Ellis 2015). Some studies in vocabulary learning have highlighted that new associations that differ from established patterns are better remembered than those that do not (Bovolenta and Marsden 2021; Brod, Hasselhorn, and Bunge 2018; De Loof et al. 2018; Greve et al. 2017; Greve et al. 2019). Studies have also suggested that developing metalinguistic awareness would support learners (Ferris and Kurzer 2019; Hyland 2022; Jessner 2008; Nassaji and Kartchava 2021). However, most studies to date have targeted languages such as English, Brazilian Portuguese, Spanish, or French (Behney and Marsden 2021; Gujord 2021; Tracy-Ventura, Paquot, and Myles 2021), leaving virtually unexplored minority languages, such as Catalan, as an L3/Ln.

### Research Questions

To support learners and teachers in instructed second language learning contexts, this study aims to analyze different aspects of language production (morphological, syntactic, and lexical) using an error-tagging system based on a four-way classification, (1) the linguistic category of errors, (2) modification types of errors, (3) the etiology of errors, and (4) the communicative consequences of errors. By analyzing the written production of English learners of Catalan as an L3/Ln with different linguistic backgrounds, this study will explore how previously learned languages display facilitative or non-facilitative transfers in learning Catalan as an L3/Ln. As a result, the research questions are:

- What are the most frequent errors English learners of L3/Ln Catalan make in writing at the intermediate level (linguistic aspects, modification types)?
- Are there differences between learners when comparing their linguistic background (previously learned languages)?

- Which errors cause miscommunication?
- What are the intralinguistic causes of the errors?
- What are the interlinguistic influences explaining the errors?

Given that recent research has shown that previously learned languages may affect target production (Puig-Mayenco et al. 2020), resulting in positive or negative transfer, we hypothesize that English learners will vary in target language production depending on the languages they know. Considering various factors, such as typological proximity, proficiency level, recency effect, as well as learning mechanisms may have an impact on third and additional language learning (González Alonso et al. 2017; Perić and Mijić 2017; Puig-Mayenco et al. 2018; Salaberry and Kunitz 2020), we also hypothesize that all the languages a learner knows will impact various aspects of writing. The transfers will be positive or negative depending on the linguistic aspect and each linguistic path.

### **Method**

This research is part of a larger project called “BlaBla Corpus” (Joan Casademont 2020), focusing on crosslinguistic influence and learning Catalan as a third or additional language. The corpus explores various learning paths of different L1 learners to identify the learning and teaching challenges. We used the data of three different typical learning paths of L1 English intermediate (B1) adult learners of L<sub>n</sub> Catalan (English-Spanish-Catalan [n=18], English-Spanish-Romance languages-Catalan [n=22], English-Spanish-multiple other languages-Catalan [n=12]). The texts were taken from a Catalan standardized exam from the Institut Ramon Llull. Learners took the exam in the United Kingdom and in the United States between 2009 and 2018. They had to write a letter to a friend describing their habits and environment, arrival in the country, weather, studies, new friends, and the challenges of living abroad using a postcard format. This text type elicits descriptions, language structures, and verb tenses targeted at the intermediate level. The average length of the texts was 249 words.



Table 1

*Participants' data (groups)*

	SP group [n=18]	SP+Romance group [n=22]	SP+OtherL group [n=12]
<b>Gender</b>			
Male ( <i>f</i> )	4	8	4
Female ( <i>f</i> )	14	14	8
<b>Age</b>			
<i>M</i>	23	22	24
Range	20–42	20–28	21–46
Average length of texts (tokens)	239	244	264

We propose an error-tagging system based on a combination of four-way classification that includes a description of the linguistic factors/modification types and the annotation of the communicative consequences and error etiology. We used nodes associated with the different categories and tags for each error for subsequent analysis to obtain both general and specific information for each error. The error codification and nodes are shown in Table 2.

The analysis was conducted using Nvivo qualitative analysis software. Texts were thoroughly read, and nodes were created in the process of generating a general and specific analysis for each language path. We generated a data set including all the variables and calculated basic descriptive statistics. All analyses were carried out using SPSS.

Table 2

**Classification: Error-tagging system, definitions and examples for L1 English learners of Catalan**

<b>Linguistic Aspects</b> (Alexopoulou 2006; Corder 1973; Ellis 1997)	
<b>Orthographic</b> (how a word is written)	<i>aburrit</i> [avorrit; boring]
<b>Morphological</b> (word formation, affixes and root word)	<i>El pis és molt <u>moderne</u> i asolellat</i> [ <i>El pis és molt modern i asolellat;</i> <i>the flat is very modern and sunny</i> ]
<b>Syntactic</b> (related to the presence or absence of mandatory elements and their sequence in a sentence)	<i>He decidit <u>a</u>...</i> [ <i>he decidit de...; I have decided to...</i> ]
<b>Lexical-semantic</b> (misuse of a word to express a specific meaning; use of a foreign word)	<i>podrem xatejar</i> [podrem xerrar; <i>we will be able to talk</i> ]
<b>Cohesion and coherence</b> (above the sentence level, where it can affect the sequencing of sentences and the coherence and/or cohesion of the text)	<i>Som dos nois i tres <u>noies</u> vivim davant d'un forn de pa</i> [ <i>Som dos nois i tres noies que vivim davant d'un forn de pa; we are two boys and three girls living in front of a baker shop</i> ]
<b>Pragmatic</b> (in discourse; e.g. conventions, implications, innuendos)	<i>Benvolguda Katia, [...] Com estàs?</i> [ <i>Estimada/Hola Katia, [...] Com estàs?; Dear Katia... How are you doing?</i> ]
<b>Typographic</b> (conventions)	Unnecessary capital letters
<b>Modification Types</b> (Alexopoulou 2006; Fernández Jodar 2006; James 1998, 2013)	
<b>Omission</b> (a necessary element is missing)	<i>Tots els caps de <u>semana</u> són lliures</i> [ <i>Tots els caps de setmana són lliures; all weekends are free</i> ]
<b>Overinclusion</b> (an extra element is present)	<i>No <u>l'</u>has conegut <u>a ell</u> perquè...</i> [ <i>No l'has conegut perquè...; you have him not met him because...</i> ]
<b>Misselection</b> (an incorrect element is used)	<i>molt a prop <u>a</u> la universitat</i> [ <i>molt a prop de la universitat; close to the university</i> ]
<b>Misordering</b> (elements are correct but in the wrong sequence)	<i>14 Carrer Anselm Clavé</i> [ <i>Carrer Anselm Clavé, 14; address</i> ]
<b>Interlinguistic Influences</b> (Alexopoulou 2006; Dulay, Burt and Krashen 1982; Fernández Jodar 2006; James 1998, 2013)	
<b>L1</b>	<i>pot quedar amb nosaltres sense <u>*problem</u></i> [ <i>pot quedar amb nosaltres sense problemes; he can meet with us without problems</i> ]

Table 2 (cont.)

<b>Other L</b>	<i>maravillosa</i> [ <i>meravellosa</i> ; <i>marvellous</i> ], <i>biblioteca</i> [ <i>biblioteca</i> ; <i>library</i> ]
<b>L1 and other L</b>	<i>el <u>programa</u> de negocis és molta feina</i> [ <i>el programa de negocis és molta feina</i> ; <i>the business program is a lot of work</i> ]
<b>Multiple other L</b>	<i>pan</i> [ <i>pa</i> ; <i>bread</i> ]
<b>Interlinguistic N.A.</b>	No possible other language influences are detected during annotation
<b>Intralinguistic Causes</b> (Alexopoulou 2006; Dulay, Burt and Krashen 1982; Fernández Jodar 2006; James 1998, 2013)	
<b>Incomplete application of rules</b> (rules are only partially applied or not applied at all)	<i>ell <u>comparta</u></i> [ <i>ell comparteix</i> ; <i>he shares</i> ]
<b>Non-application of exceptions to rules</b> (exceptions to rules are not applied)	<i>vivíem davant d'un forn de <u>pa</u></i> [ <i>vivíem davant d'un forn de pa</i> ; <i>we lived in front of a baker shop</i> ]
<b>False analogy</b> (misuse of a rule when it does not apply; a word or expression that is incorrect in context)	<i>jogar</i> [ <i>jugar</i> ; <i>to play</i> ]
<b>Intralinguistic N.A.</b>	No possible interference with what has already been learned in the target language (Catalan) is detected during annotation
<b>Communicative Consequences</b> (Dulay et al. 1982; Gozali 2018)	
<b>Causing miscommunication</b>	<i>Ella és un <u>company</u> de la universitat</i> [ <i>Ella és una companya de la universitat</i> ; <i>she is a colleague from university</i> ]
<b>Not causing miscommunication</b>	<i>Després em va donar el seu <u>numero</u></i> [ <i>Després em va donar el seu número</i> ; <i>afterwards, he gave me his number</i> ]

## Results

We first analyzed the entire group and then split the data into subgroups corresponding to the different language paths: English-

Spanish-Catalan (n=18), English-Spanish-Romance languages-Catalan (n=22), English-Spanish-multiple other languages-Catalan (n=12). Table 3 shows the total number of errors and the percentage for each linguistic aspect. Results show that the most frequent ones (orthographic, syntactic errors, and cohesive/coherence errors) account for 73.79% of the corpus's total number of annotated errors. As for the modifications causing errors in the texts, misselection and omission are the most common (Table 4).

Table 3

*Linguistic Aspects: Number and Percentage of Errors*

Linguistic Aspects	<i>n</i>	%
Cohesive and Coherence	337	<b>21.18</b>
Lexical-Semantic	150	9.43
Morphologic	155	9.74
Orthographic	474	<b>29.79</b>
Pragmatic	56	3.52
Syntactic	363	<b>22.82</b>
Typographic	56	3.52
Total	1591	100.0

Table 4

*Modification Types: Percentage of Errors*

Modification Type	%
Blends	6.10
Misordering	1.51
Misselection	<b>37.77</b>
Omission	<b>39.03</b>
Overinclusion	15.59
Total	100.0

A generalized estimating equation was used to determine whether there was a difference in error types between the groups. The distribution of linguistic aspects was significantly different between the three groups. Then, pairwise comparisons were carried out. The three groups did not differ significantly with regard to error distribution. However, some interlinguistic influences were found to be significant, depending on the linguistic background. For example, participants who learned Romance languages other than Spanish tend to produce fewer errors using the apostrophe (writing *l'arquitectura* instead of *\*la arquitectura* for “the architecture”; using a French structure). On the other hand, we note that participants who only learned Spanish tend to produce more errors linked to the past tense ending of some verbs, a potential influence of the Spanish language (writing *\*estaba* instead of *estava* for “I was”). For this group, we also note the omission of accents (e.g. hiatus) that do not exist in Spanish (for example, *\*familia* instead of *família* for “family”).

Next, we used a crosstab to determine the most frequent combination of errors depending on the linguistic aspects (LA) and modification types (MT). We created the LAMT categories presented in the first column of Table 5, which represent the most frequent combinations of errors for the whole group. They account for 84.29% of all errors.

Table 5

*Linguistic aspects (LA) and modification types (MT) and communicative consequences*

Aspect*Modification with communicative consequences (%)	Causing miscommunication	Not causing miscommunication
Other errors	4.53	11.19
<b>Cohesive and Coherence*Misselection</b>	<b>4.71</b>	1.51
Cohesive and Coherence*Omission	0.50	12.45
<b>Lexical-Semantic*Misselection</b>	<b>6.03</b>	2.58
<b>Morphological*Misselection</b>	<b>3.39</b>	3.33
Orthographic*Misselection	1.01	6.73
Orthographic*Omission	1.26	13.07
Orthographic*Overinclusion	1.32	4.02
<b>Syntactic*Misselection</b>	<b>2.77</b>	4.78
Syntactic*Omission	1.45	4.84
Syntactic*Overinclusion	0.88	4.59
Syntactic*Blends	0.88	2.20
Total	28.72	71.28

Although the groups did not differ significantly in terms of errors causing miscommunication, we wanted to explore these errors in greater depth. Table 5 shows that 28.72% of overall errors do cause miscommunication. Specifically, we can see that the errors that impact communication are cohesive-coherence misselections, lexical-semantic misselections, morphological misselections, and syntactic misselections. To illustrate the error types, Table 6 presents different examples of the most frequent categories of errors that impact communication.

Table 6

*Misselection error types and examples*

Misselection error types	Examples and explanations
Cohesive and Coherence	<i>Aquesta nit, els ciutadans van encendre fogueres per celebrar la vida del rei, i encara ho fem avui dia!</i> Use of time references and/or verb tenses that do not fit ( <i>this night vs that night citizens lit fires to celebrate the king's life, and we still do so nowadays!</i> ).
Morphological	<i>Quan trobi un vol barat compra un bitllet!</i> 3 <sup>rd</sup> person present subjunctive instead of 2 <sup>nd</sup> person present subjunctive. Use of the wrong verb ending ( <i>when I found a cheap flight, buy it!</i> ).
Syntactic	<i>Has de continuar a viure.</i> Another language's influence usually causes the use of a syntactic construction that does not exist in the target language (using "to continue + preposition + infinitive" instead of the phrasal form "to continue + gerund"; <i>you must continue living</i> ).
Lexical-Semantic	<i>Ho entenc pero no cal amargar-sa el cap sota l'ala.</i> Wrong word choice (use of <i>amargar</i> [to bitter] instead of <i>amagar</i> [to hide]) ← <i>amagar el cap sota l'ala = to bury one's head in the sand.</i>

Subsequently, to better understand the influences of other languages known by the English speakers, we explored the interlinguistic influences. The analysis shows that most of the time, the influence of the L1 (English) does not have a negative impact on the production (syntax and morphology), but that relying on other languages they know (such as Spanish, for example) may cause a negative transfer (lexical-semantic) in the target language (using *\*setmana* instead of *setmana* or *\*centro* instead of *centre*; "week" and "centre," respectively).

Finally, we wanted to understand the intralinguistic causes of these errors. Results show that errors causing miscommunication are often associated with an incomplete application of rules (for example, the non-application of gender accordance such in *\*Ella és un company*, instead of *ell* or *companya*, depending on the gender of the person that the writer is referring to; “he/she is a colleague”).

## Discussion

The objective of this study was to explore three different learning paths of L1 English learners of Catalan as a third or additional language in an attempt to better understand multilingualism and its implications for teaching writing. We hypothesized that English learners will vary in target language production depending on their previously learned languages.

First, we explored the most frequent errors English learners of Catalan as an L3/Ln make in writing at the intermediate level, namely in terms of linguistic aspects and modification types. We found that the challenges English learners face in learning Catalan as an L3/Ln are mainly related to word selection (lexical-semantic errors) followed by the grammatical arrangement of words in a sentence. These results are consistent with previous research findings showing that lexical-semantic errors are frequent and more common than grammatical ones (Bouvy 2000; Jiménez Catalán 1992; Meara 1984).

When we explored the learning paths in greater depth (Question 2), we found no significant differences in terms of errors in the target language between English learners with different linguistic backgrounds. Although the groups did not differ significantly with regard to the distribution of errors, some tendencies were found in terms of interlinguistic influences. Next, the analysis of communicative consequences highlighted four categories of misselections as being the most frequent: cohesive and coherence, morphological, syntactic, and lexical-semantic.

When exploring the intralinguistic causes and interlinguistic influences to explain these findings, we noticed some tendencies in line with previous research findings showing that a learner’s other known languages may result in a transfer that can be positive or negative depending on the linguistic aspects and modification types. As a result, the groups did not differ in terms of error categories (LAMT) when considering their linguistic background, but some interlinguistic influences were found (negative and positive transfers). These findings are consistent with the Typological Primacy Model (TPM) (Rothman 2015, 2011). Our results suggest that, at this level, CLI “will come from the background language that the

learner's internal mechanisms perceive" (Rothman 2010, 246) to be the most similar to the target language. This can lead to positive or negative transfers. Kellerman's (1983) notion of psychotypology how learners perceive differences and similarities between languages (see also De Angelis 2019) can explain that in this specific case, learners would perceive Catalan as more closely related to Spanish than to the other languages they know, likely because Catalan is mainly spoken in the Iberian Peninsula. This perception is probably rooted in sociolinguistic beliefs, as most Catalan speakers are in Spain (Diaubalick, Eibensteiner, and Salaberry 2020; Gujord 2021; Westergaard et al. 2017). For English speakers, when learning Catalan, this would result in relying on a related language such as Spanish.

Results also show that this can be an advantage for learners at the syntactic level because Catalan shares common features in terms of structure, such as morphology and syntax, with other Ibero-Romance languages such as Spanish. However, learners do not always make accurate predictions if they rely on Spanish in terms of lexicon because Catalan's lexicon is closer to Gallo-Romance languages such as French. Geographical realities may explain this phenomenon. Spanish words are usually closer to the older variety of Latin, a variety spoken when Rome conquered the Iberian Peninsula (Penny 2009). As Catalonia was closer to Rome than the rest of the Peninsula, the Catalan language evolved differently in terms of its lexicon. Therefore, it is closer to Occitan than Castilian (Argenter and Lüdtke 2020; Ferrando and Nicolás, 2011). The perceived relatedness of Spanish and Catalan may then explain some of the learners' misselections.

Current results show that L3/Ln learners do not rely exclusively on their L1 but on several systems of linguistic representation that they perceive to be related to the target language (Puig-Mayenco et al. 2020). In this specific case, relying on Spanish seems to be a strategy various learners use. This reliance on Spanish led to a positive transfer in terms of syntax but to a negative transfer when it came to lexical-semantic choices; the similarities influencing the nature of the transfer (De Angelis 2007; González Alonso et al. 2017; Perić and Mijić 2017; Puig-Mayenco et al. 2018; Salaberry and Kunitz 2020).

### **Learning and Teaching Challenges of English Speakers**

The implications of our findings can be useful at different levels when teaching a third or additional language. We know that teachers



cannot consider every factor related to previously learned languages, especially in heterogeneous contexts. However, in a homogeneous context, explicitly emphasizing similarities with other languages to strengthen crosslinguistic comparison strategies would be an interesting option. Another option would be to focus on the most frequent errors learners make at this level. Current results can provide valuable information for teachers as an emphasis on lexical selection, appropriate time reference (coherence), and morphology would benefit the learners by targeting the most frequent errors encountered at this level.

To prevent the negative influence of the L1, an idea rooted in contrastive analysis, teachers tend to use only the target language in the classroom, keeping the other languages outside of the classroom. An interesting alternative would be to exploit the potential cooperation between languages to take advantage of previously learned languages. Research indicates that learners who manipulate their languages in various contexts become more aware of the languages' formal and functional aspects (Woll 2017), suggesting that raising metalinguistic awareness would benefit multilingual learners (Jessner 2008). In applied linguistics research focusing on SLA in instructed settings, "researchers tend to conceptualize metalinguistic awareness in terms of explicit knowledge about language" (Roehr-Brackin 2018). Therefore, learners' metalinguistic ability is often considered "the capacity to use knowledge about language instead of the capacity to use language" (Bialystok 2001).

Metalinguistic awareness is an asset in terms of acquisition of various aspects of language production such as phonology (Marx and Mehlhorn 2010), syntax (Bardel and Falk 2007), lexicon (Dressler et al. 2011), as well as reading (Peyer, Kayser, and Berthele 2010) and writing (Cenoz and Gorter 2011). Teachers could ask students to manipulate the target structure to raise metalinguistic awareness. By asking them to explain or justify their choices in terms of word selection or verb tense, students would become aware of correspondences between unknown target items and related background vocabulary.

Multilingual learners seem to develop analytical abilities to infer meaning based on crosslinguistic correspondences with previously acquired languages. As a result, activities in class such as searching for semantic or syntactic cues in concurrent sentences or establishing links with other learning events would also promote strategies often associated with accurate prediction and positive transfer.

In sum, teachers should take advantage of learners' multilingual background and focus on specific aspects such as word selection and sentence structure at lower levels. This would probably help lower

intermediate students, such as the English L1 learners in the current study, to improve on significant aspects causing miscommunication.

On the other hand, research has shown that teachers do not feel competent choosing materials, techniques, and methods when planning lessons in multilingual settings (Haukås 2016). To consider multilingualism in preservice programs would be an interesting option to support teachers, especially when teaching minority languages for which very limited resources are available.

### **Limitations and Future Research**

Current research is not without its limitations. Multilingualism is a complex phenomenon and many factors must be considered when exploring the impact of previously learned languages on a target language. It would have been helpful to know more about the age of onset, the learning context, and the linguistic background of participants (level of proficiency in all previously learned languages) to investigate whether these factors might impact the nature of CLI on the target language. Future research should explore the performance of learners of the same target language with different language paths to better understand CLI, as well as to address the potential impact of techniques on L3/Ln learning for learners of different backgrounds (same target language) to find effective methods that can be used daily in a classroom context.

### **Conclusion**

Current results showing that previously learned languages may lead to facilitative and non-facilitative transfers add to the overall picture of the impact of other languages on additional language learning, especially for minority languages such as Catalan. Our results show that English learners tend to rely on the language they perceive to be the closest to the target language (in this case, Spanish). Teachers need to take the learners' linguistic background into account, especially in multilingual settings. As there is an increasing interest in Catalan learning (as an additional language) in the international academic community (Manuel-Oronich, Repiso-Puigdelliura, and Tudela-Isanta 2021; Tudela-Isanta et al. 2020), this study highlighted some challenges English speakers encounter when learning Catalan in an attempt to support teachers' decisions. Although multilingual learners with the same L1 may share strengths and weaknesses in the target language, more studies are needed to better understand multilingual learning in minority language learning and, most

importantly, the best teaching strategies when learning in L3/Ln teaching.

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