



# A multicompetence perspective on the use of conjunction in writing in English as a second language for academic purposes

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## ABSTRACT

Following the multicompetence framework (Cook and Li, 2016; Ortega, 2016), this paper aims to (a) analyse differences in the use of conjunctions across the L1 Spanish and the L1/L2 Spanish groups and L1 English and L1/L2 English groups, and (b) determine the possible occurrence of crosslinguistic influence across groups. Findings revealed that no significant differences were found across the L1 Spanish and the L1/L2 Spanish groups, while the L1/L2 English group used more conjunctions than the L1 English group. No evidence of crosslinguistic influence was found. It seems that proficiency and training in academic writing may be more relevant than being a native or non-native academic writer.

*Keywords: conjunctions, academic writing, multicompetence, second language, crosslinguistic influence.*

## RESUMEN

Siguiendo el marco de multicompetencia (Cook y Li, 2016; Ortega, 2016), este artículo tiene como objetivo (a) analizar las diferencias en el uso de conjunciones entre los grupos de español L1 y español L1/L2 y los grupos de inglés L1 y de inglés L1/L2 y (b) determinar la posible aparición de influencia interlingüística entre los grupos. Los resultados revelaron que no se encontraron diferencias significativas entre los grupos de español L1 y español L1/L2, mientras que el grupo de inglés L1/L2 produjo más conjunciones que el grupo de inglés L1. No se encontró evidencia de influencia interlingüística. Parece que la competencia lingüística y la formación en escritura académica pueden ser más relevantes que ser un escritor académico nativo o no nativo.

*Palabras clave: conjunciones, escritura académica, multicompetencia, segunda lengua, influencia interlingüística.*

## 1. Introduction

This study looks into how L1 Spanish speakers, L1 English speakers and Spanish learners of L2 English use conjunctions in the context of academic writing with the aim of (a) analysing possible differences in the use of conjunctions across L1 English speakers and Spanish learners of English as a Second Language (L1/L2 English group) and across L1 Spanish speakers and L1 Spanish learners of English as a Second Language (L1/L2 Spanish group) and (b) determining the potential occurrence of crosslinguistic influence (CLI) across groups. With this purpose in mind, the learners' group data have been collected in both their L1 and their L2 and data have also been collected from two baseline native speaker control groups (Spanish L1 and English L1). Conjunctions in L2 academic writing have tended to be analysed by collecting data in the L2 or, in the best of cases, in both the L1 and the L2 but, to the best of our knowledge, no study has so far considered the analysis of conjunctions in the learners' total system, together with the analysis of baseline control groups from both native speakers of the L1 and native speakers of the language they are learning.

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The study has been divided as follows: Section 2 deals with conjunctions. Section 3 focuses on conjunctions in L2 academic writing. Section 4 is devoted to multicompetence and conjunctions. Finally, the empirical study is included in section 5.

## 2. Conjunctions

Written texts possess certain characteristic features. One of them is the use of grammatical and lexical linking to establish meaning relations. Cohesion provides lexical and grammatical links to an element with what has gone before or what follows. Halliday & Hasan (1976) divide cohesive devices into lexical and grammatical. This study focuses on grammatical cohesion, more specifically on conjunctions. The use of these elements requires understanding how meaning relations work in the structure of a text. Conjunctions can join complex sentences, and they tend to be idiosyncratic. For this reason, according to Martí (2018), they are difficult to acquire in a second language. Halliday & Hasan (1976) divide grammatical cohesion into four types: conjunction, ellipsis, reference and substitution. Thus, conjunctions are a part of grammatical cohesion. They can be defined as a type of cohesive relation that contributes to text cohesion. In their analysis of cohesion in English, Halliday & Hasan (1976) consider conjunctions “a specification of the way in which what is to follow is systematically connected to what has gone before” (Halliday & Hasan, 1976: 227). Conjunctions connect units which are structurally independent. They indicate textual relationships at different levels: word, clause and sentence. In contrast to the other types of grammatical cohesive relations, conjunctions are not cohesive per se, but by the specific meaning they convey. The use of the appropriate conjunctions in a text is in fact one of the indicators that the text is coherent and cohesive (Meyer, 2005, Murray & Geraldine, 2008, Williams, 2003)

As cohesive devices, conjunctions relate to other elements occurring in succession, which are not related by structural means. Halliday & Hasan divide conjunctions in English into four types according to their functions: additive, adversative, causal and temporal, which are exemplified below: (1976: 238-9).

*For the whole day he climbed up the steep mountainside, almost without stopping*

**And** all this time he met no one. (additive)

**Yet**, he was hardly aware of being tired (adversative)

**So** by night time the valley was far below him. (causal)

**Then**, as dusk fell, he sat down to rest (temporal)

Conjunctions are also known as connective adverbs (Huddleston & Pullum, 2002), connectors (Granger & Tyson, 1996) or discourse markers (Fraser, 1999, Parrot, 2000). Halliday and Hasan’s typology is used here as it has been widely used in the study of conjunctions in English both in the L1 and the L2. Their book, as the authors acknowledge: “originated as one of a series of studies of the English language and modern English texts” (p.vii). Their classification of conjunctions is idiosyncratic of the English language. For this reason, in the present paper, this classification has not been applied for the analysis of Spanish conjunctions. Instead, for the classification of Spanish conjunctions we have chosen the classification by Martí (2008). In Romance languages like Spanish there has been extensive research on discourse markers and conjunctions (e.g. Martín Zorraquino & Montolio, 1998; Montolio, 2001; Portolés, 2001) to name only a few. We have chosen to follow Martí’s classification as it has been widely cited in previous studies and it has proved to be a useful tool for teachers of Spanish and also for learners of Spanish as a L2. His classification considers the contents, functions and specific expressions of discourse markers in Spanish (Martí, 2008) In his typology conjunctions are called discourse connectors. For the sake of clarity, we will use the term conjunctions in this paper to refer to both conjunctions

in English and in Spanish. Martí divides them into argumentative and metadiscursive. Argumentative conjunctions have an internal function, i.e., they affect the different components of the message, but do not affect the message as a whole. For instance, in example 1, Estefanía wears uncomfortable shoes, not appropriate for running, and she is tired. The conjunction “incluso” (even) indicates a new argument or reason as to why she cannot participate in the race: she has a swollen ankle.

- (1) *Estefanía no puede participar en la carrera con esas chanclas y con lo cansada que está. Incluso tiene el tobillo hinchado* (2008:34) [Estefanía cannot participate in the race with those flippers and tired as she is. She **even** has a swollen ankle]

Metadiscursive conjunctions organize the message and mark the function of the different components, as in:

- (2) *En primer lugar, vinieron Margarita y Lidia. En segundo lugar, llegó Sara. Por último, se presentaron Noelia Elena y Paloma* [First, Margarita and Lidia came. Then, Sara came. Finally, Noelia, Elena and Paloma arrived] (2008:34)

Both types are divided into several subtypes. Argumentative conjunctions are classified into summative, counterargumentative and consecutive. Summatives add arguments towards the same conclusion, for example: además (also), también (too), incluso (even); counterargumentatives oppose arguments (e.g. no obstante (nevertheless), por el contrario (on the contrary), sin embargo (however). Finally, consecutives introduce conclusions derived from a previous argument (e.g. así pues (so), de esta manera (in this way), por lo tanto (thus). On the other hand, metadiscursive markers are divided into information markers, which help the speaker construct the message, as example 2 above shows, and reformulators refer to the markers that allow the speaker to go back to something that has been previously expressed (e.g. es decir (that is), o sea (that is).

The following table illustrates the different conjunctions analysed in both languages:

Halliday and Hasan's typology	Martí's typology	Martí's typology (subtypes)
Additive	Metaargumentative	Summative
Adversative		Countareargumentative
Casual		Consecutive
Temporal	Metadiscursive markers	Information markers
		Reformulators

Table 1. Conjunction types.

### 3. Conjunctions in L2 academic writing

The use of conjunctions in academic writing has been found to be a problematic issue not only for non-native English but also for native speakers. Nippold, Schwarz & Undlin (1992) investigated the comprehension and use of conjunctive devices in the readings and writings of American high school and university students. Students did better at reading, but found difficulties in writing. Some studies have also analysed the development of writing over time (Hayes & Flower, 198; Myhill, 2008). Most of these studies conclude that as writing develops the use of cohesive devices increases. Halliday & Hasan (1976) did not include in their study any pedagogical implications of their classification; however, other studies, such as Carrell (1982) did. His findings revealed that cohesive devices do not play a central role in composition writing, so they are secondary to the organisation of a text. Therefore, not much attention was paid to the teaching of conjunctions in writing at the

time. At present their teaching is considered to be relevant. It tends to focus on how cohesive devices are used and on their meanings. Attention has also been turned to connectivity and its relation with text organisation.

In second language acquisition, conjunctions have proved to be a difficult issue (e.g. Martínez, 2004; Heino, 2010) and they have also become a part of education syllabi in academic writing. Studies, such as Reid (1993), deal with the specific teaching of cohesive devices, as they vary between L1 and L2 writers. MacCarthy (1991) also acknowledges that cohesive devices need to be taught in L2 instruction since L2 writers may find difficulties in understanding how cohesion works. Following this same argument, Scott (1996) and Kroll (1991) also include possible transfer from L1 cohesion into the L2. Therefore, conjunctive devices are now considered relevant in the teaching of writing in a second language.

In recent years research has aimed at identifying the cohesion problems that arise in ESL writing. Narita, Sato & Sugiura (2004) carried out a corpus-based study with advanced Japanese learners of English. They found that the most commonly used devices were *moreover*, *in addition* and *of course* while the less frequently used were *then*, *yet* and *instead*. Wei-yu (2006) conducted a similar study with Taiwanese learners of L2 English and professional writers. He observed that L2 writers used additive conjunctions to a larger extent while professional writers preferred adversative conjunctions. In a recent study conducted with undergraduate Libyan students learning English as a L2, Hamed (2014) found that adversative conjunctions were the most difficult for the students. Wang & Sui (2006) found that it is hard for ESL learners to use conjunctions appropriately and they tend to resort to the most frequently used such as *and* or *but*. Other studies, such as Kang (2005), have shown that learners use significantly more conjunctions than native speakers. In addition, several longitudinal studies have analysed the development of cohesive devices in the L2 (Grant & Ginther (2000); Crossley et al. (2010); Yang & Sun (2012) related to essay quality. In a recent study Crossley et al. (2014) have shown that conjunctions correlate with essay quality. Other authors (Zhang, 2010, Martínez, 2015) have also pointed out that frequency of use of conjunctions in a text increases with writing performance.

#### 4. Conjunctions and multicompetence

Most of the above mentioned studies indicate that L2 learners should be taught the difference in the use of conjunctions and their functions between the L1 and the L2; however, none of them includes in their data analysis the conjunctions produced by learners in both their L1 and L2. Neither do they include the comparison of how native speakers of the L1 and the target language use conjunctions in academic writing in their respective L1s. In recent studies on second language acquisition, Cook (2012) and Cook & Li (2016) have proposed the multicompetence framework. This refers to the knowledge of more than one language in the same mind (2012:3768). As multiple languages co-exist in the mind of the L2 user, it is necessary to consider the learner's total system, i.e., L1-L2. Analysing the learner's total system is more time consuming for the researcher. It means more coding and analysis than simply analysing the L2. However, it has a great number of benefits, as Ortega (2016) acknowledges. One of them is to overcome the deficit orientation. If evidence is only analysed in the L2, the conclusion obtained misses relevant information from the other languages in the learners' total system. Thus, data should include evidence from the same participants in their L1 and L2 and sample control groups of native speakers both in the L1 and the L2 (cf. Ortega, 2016). Studies that do not consider the total system may conclude that there is crosslinguistic influence (CLI), but actually it is not proven. Using Odlin's (1989) definition CLI refers to the influence that not only the L1 but also any previously acquired language exerts on a new language. CLI can take different directions and occur for example from L2 to L1 or from L3 to Ln and vice versa. In order to know whether CLI is at work, data should be collected in the different languages used by the learners;

otherwise, it is assumed rather than proved. Taking all this into account, the following research questions are addressed:

1. Will there be differences in the use of conjunctions across L1 Spanish and L1 English groups, across L1 English and L1/L2 English groups and across L1 Spanish and L1/L2 Spanish groups?
2. Will there be differences in the use of additive, adversative, causal and temporal conjunctions between L1 English and L1/L2 English groups?
3. Will there be differences in the use of summative, counterargumentative, consecutive, information markers and reformulator conjunctions between L1 Spanish and L1/L2 Spanish groups?
4. Will there be evidence of crosslinguistic influence across groups?

Conjunctions across the four groups have been compared only in terms of frequency of use. No comparison of the different types of conjunctions has been offered between conjunctions in English and in Spanish since in these two languages they are categorized in different subtypes, as Halliday & Hasan's and Martí's typologies show. However, comparisons of the different conjunction types have been carried out between a) English L1 and English L2 and b) Spanish monolinguals and Spanish learners' of L2 English in their L1 (Spanish) to compare groups who speak the same language.

## 5. The study

### 5.1. Participants

Twenty-four Spanish speakers learning English as a L2 took part in this study, together with two monolingual groups: 24 L1 English and 24 L1 Spanish speakers. These subjects participated in two studies, the study conducted by Alonso (2019) and the present study. They were all University students. L1 English speakers studied English Linguistics at an American University. L1 Spanish speakers studied Spanish Philology at a Spanish University: Spanish speakers learning English as an L2 studied Foreign Languages at a Spanish University. Only speakers familiar with the genre of academic writing took part in the study as some studies suggest that writing experience or academic literacy may be more influential for academic writing than being a native speaker (cf. Zhao, 2017). They all took academic writing courses in their respective universities. They were all familiar with composition writing. In short, data were collected from three groups: L1 English, L1 Spanish and in the case of the learners' group, data were collected from the same group but in both their L1 and L2. In order to make reading easier these groups are named L1/L2 Spanish and L1/L2 English, as Table 2 illustrates.

Speakers	Languages	Group
L1 English speakers	English	L1 English
L1 Spanish speakers	Spanish	L1 Spanish
L1 Spanish speakers learning English as a L2 (in their L1 Spanish)	Spanish L1	L1/L2 Spanish
L1 Spanish speakers learning English as a L2 (in their L2 English)	English L2	L1/L2 English

Table 2. Groups of participants and languages analysed.

All groups answered a questionnaire in order to know whether they had attended academic writing courses and were familiar with composition/essay writing. They all reported having attended a one-semester academic writing course in their respective universities and being familiar with composition and essay writing. Moreover, the L2 group carried out the Oxford Quick Placement test (2001). It showed their level was B2 according to the Common European Framework of Reference for Languages. They were all native speakers of Spanish. They all attended a course on academic writing taught by a native speaker of English. The contents focused on academic writing in English. As their teacher was a monolingual native speaker of English, he made no comparisons between English and Spanish in his teaching. This group undertook the task both in English and in Spanish.

The monolingual native control groups answered a short language background questionnaire in order to obtain information on their language usage. In a multilingual society it is difficult to find monolingual subjects, so the selected subjects are “minimally bilingual”, as stated in Cook (2003:14). The learners’ group also answered the test on language use by Gullberg & Indefrey (2003). The results indicated that they used English daily at the university, they wrote all their papers and exams in English, and they studied English a mean of 2 hours a week on their own.

L1 English speakers were a mean age of 20.4 years old. There were 14 males and 10 females. They did not speak any foreign language and they have never been in a Spanish-speaking country. As regards L1 Spanish speakers, they were a mean age of 18.9, and there were 6 males and 18 females. None of them was bilingual or showed an intermediate or advanced level of proficiency in English. They have never lived in an English speaking country, and they are not doing any English course at present. With regard to L2 learners their mean age was 19.3, and there were 4 males and 20 females.

## 5.2. Material and procedures

The participants in this study were asked to produce a written argument for a given topic of 250 words. The topic they were given was: “Some people believe the aim of university education is to help graduates get better jobs. Others believe there are much wider benefits of university education for both individuals and society. Discuss both views and give your opinion”. This task is similar to the writing tasks used in the International English Language Testing System.

They produced the writing outside of class hours and they were allotted one hour to write the composition. They did it in a quiet room in their respective universities, English speakers in an American university and Spanish students in a Spanish university. Participants were not allowed to use dictionaries or any other materials. The language order was counterbalanced for the learner group. First they produced the task in English and three weeks later they wrote the same task in their L1 (Spanish) with the aim of avoiding language mode effects (Grosjean, 1998:132). The monolingual groups undertook the task only in their L1.

Based on the compositions produced, the following number of compositions was analysed: 24 compositions by English L1 speakers, 24 compositions by Spanish L1 speakers and 48 compositions by Spanish learners of L2 English, 24 in their Spanish L1 and 24 in their English L2.

## 5.3. Results

For the global analysis of the data chi-square tests were used as they compare two variables in order to observe if they are related. In all analyses the value of  $p$  taken to be significant is  $p < 0.05$ . Moreover, frequencies have

also been analysed by individual essay. Means and standard deviations have been calculated for the groups and conjunctions types and compared using a 2 x 2 ANOVA test with interaction.

The number of conjunctions produced by the monolingual speakers of L1 Spanish and L1 English and the conjunctions used in Spanish and in English by the bilingual group are presented in Table 3. The total number of words each group produced is also stated. Then, we explain the results of the chi-square test comparing the L1 Spanish and L1/L2 Spanish groups, the L1 English and the L1/L2 English groups, the L1 English and the L1 Spanish groups. Effect size has also been included.

	L1 Spanish	L1/L2 Spanish	L1 English	L1/L2 English	Total
Number of words	6615	6271	4125	5213	22224
Number of conjunctions	98	113	137	231	578

Table 3. Total number of words and conjunctions produced by the four groups.

Chi-square tests comparing the L1 Spanish group and the L1/L2 Spanish group revealed no significant differences across both groups in the number of conjunctions produced. As regards the L1/L2 English group and English L1 speakers, the L1/L2 English group produced more conjunctions in English than English speakers ( $\chi^2$  6.54321,  $p < 0.05$ ) did. L1 English speakers also showed significant differences with regard to L1 Spanish speakers, i.e., English speakers produced more conjunctions than their Spanish counterparts ( $\chi^2$  38.656,  $p < 0.05$ ). Finally, the L1/L2 English group produced more conjunctions in the compositions they wrote in English than in the compositions they wrote in their L1 Spanish ( $\chi^2$  66.823,  $p < 0.05$ ). In other words, the same group of speakers used more conjunctions in their L2 than in their L1. In order to observe whether the differences across groups are large or small, the effect size has been measured. It was calculated by means of Cramer's V (0-0.10= no effect, 0.10-0.30= small effect, 0.30-0.50= moderate effect, 0.50-1.00=large effect). The Spanish L1 and L1/L2 Spanish group showed no effect (Cramer's V=0.010), the L1 English and L1/L2 English groups showed small effect (Cramer's V=0.025), the L1 English and L2 Spanish group showed moderate effect (Cramer's V= 0.059). Finally, the L1/L2 English and L1/L2 Spanish group showed a strong effect (Cramer's V=0.075).

These results indicate frequencies for groups. Frequencies for individual essays have also been analysed in order to observe variability. Individual results for each group are included in Tables 5, 6, 7 and 8. Due to the length of the tables, they have been included in an appendix. In order to address our research questions, comparisons have been established between the L1 English and the L1/L2 English group, and the L1 Spanish and the L1/L2 Spanish group. Table 4 provides the means and standard deviations of each group. Figure 1 shows the results of the comparison between the L1 English and the L1/L2 English groups. Figure 2 indicates the results of the comparison between the L1 Spanish and the L1/L2 Spanish group. As can clearly be seen in Table 4, the L1/L2 English group produced almost twice the number of conjunctions than the other groups.

	L1 English	L1/L2 English	L1 Spanish	L1/L2 Spanish
Means	5.71	9.63	4.08	4.71
Standard deviations	3.56	3.05	2.92	2.22

Table 4. Means and standard deviations of each group.

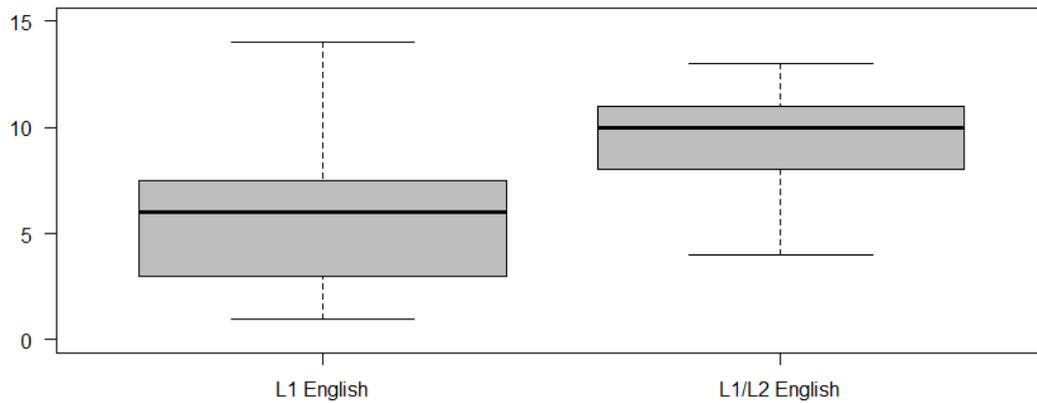


Figure 1. Comparison between the L1 English and L1/L2 English groups.

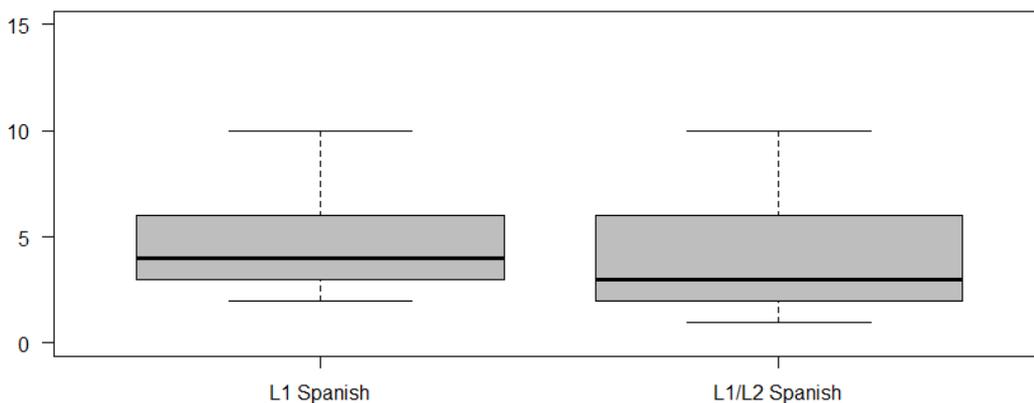


Figure 2. Comparison between the L1 Spanish and the L1/L2 Spanish groups.

In the following section, we focus on the results across groups. The different types of conjunctions used by the L1 English and the L1/L2 English group are shown, as well as those produced by the L1 Spanish and L1/L2 Spanish groups.

### 5.3.1. Results across groups

#### 5.3.1.1. L1 English and L1/L2 English groups

The different types of conjunctions used by speakers of L1 English and L1/L2 English are shown in Table 9. Frequencies are indicated between brackets. Means and standard deviations are included in Table 10.

L1 ENGLISH		L1/L2 ENGLISH	
<b>Additive (106)</b>		<b>Additive (152)</b>	
Also	(18)	Also	(18)
And	(66)	And	(92)
For example	(3)	For example	(5)
For instance	(1)	For instance	(2)
I mean	(1)	Besides	(2)
In fact	(1)	But	(21)
Or	(16)	For the other hand	(1)
		Furthermore	(1)
		In addition	(2)
		In the same way	(1)
		Moreover	(2)
		On the other hand	(3)
		On the other side	(1)
		Similarly	(1)
<b>Adversative (25)</b>		<b>Adversative (42)</b>	
But	(14)	But	(31)
Despite	(1)	Despite	(2)
However	(8)	However	(5)
Either way	(1)	In contrast	(1)
On the contrary	(1)	Nevertheless	(2)
		Rather	(1)
<b>Causal (4)</b>		<b>Causal (21)</b>	
So	(3)	So	(14)
Therefore	(1)	Therefore	(3)
		As a result	(1)
		As a consequence	(1)
		For this reason	(1)
		For that reason	(1)
<b>Temporal (2)</b>		<b>Temporal (16)</b>	
First	(2)	First	(2)
		At the end	(1)
		Finally	(6)
		First	(2)
		First of all	(1)
		Second	(1)
		Then	(1)
		To conclude	(1)
		To sum up	(1)

Table 9. Conjunctions produced by the L1 English group and the L1/L2 English group.

MEANS AND STANDARD DEVIATIONS				
Types	L1 English		L1/L2 English	
	Mean	SD	Mean	SD
Additive	4.42	3.23	6.33	2.46
Adversative	1.04	0.95	1.75	1.29
Causal	0.17	0.38	0.88	1.03
Temporal	0.08	0.28	0.67	0.82
<b>Total</b>	<b>1.43</b>	<b>2.44</b>	<b>2.41</b>	<b>2.77</b>

Table 10. Means and standard deviations of the different types of conjunctions used by the L1 English and the L1/L2 English groups.

A 2x2 ANOVA test with interaction was conducted so as to distinguish the differences between both groups. It considered the type of conjunction used and the possible interaction between group and conjunction type. The results revealed that the L1/L2 English group used more conjunctions than the L1 English group did ( $p < 0.05$ ), as can be observed in Figure 1 above. It also showed that significant differences were found in the use of additive conjunctions when compared with the rest of conjunctions. Both groups used additive conjunctions to a larger extent ( $p < 0.05$ ). Finally, the interaction between group and conjunction type proved to be non-significant ( $p > 0.05$ ). The type of conjunction used does not depend on the group (L1 English or L1/L2 English). Figure 3 shows the distribution of conjunctions in both groups.

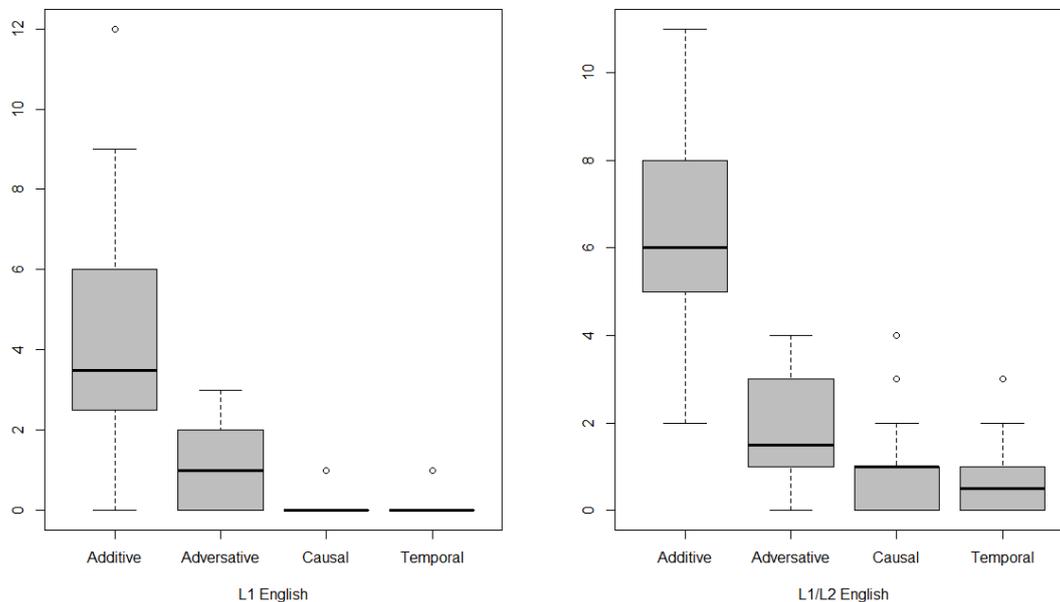


Figure 3. Distribution of the different types of conjunctions used by the L1 English group and the L1/L2 English group.

To sum up, differences emerged across both groups in the number of conjunctions used with the L1/L2 English group producing more conjunctions in the four different types. Differences were also found in the use of additive conjunctions. They were used more frequently than any other conjunction type in both groups. The interaction between group and conjunction type was not significant, it revealed that the group (L1 English or L1/L2 English) did not influence the type of conjunction used.

### 5.3.1.2. L1 Spanish and L1/L2 Spanish

The different types of conjunctions used by these groups are detailed in Table 11. Frequencies are indicated between brackets. Means and standard deviations are shown in Table 12.

L1 ENGLISH	L1/L2 ENGLISH	
<b>Consecutive (26)</b>	<b>Consecutive (24)</b>	
Como consecuencia (As a consequence)	(1) Así (So)	(5)
De esta forma (In this way)	(1) Así pues (So)	(1)
De esta manera (In this way)	(2) Así que (So)	(1)
Entonces (So)	(3) En consecuencia (As a consequence)	(1)
Por ello (For this)	(2) Por ello (For this)	(3)
Por esto (For this)	(2) Por esto (For this)	(1)
Por eso (For this)	(3) Por esta razón (For this reason)	(1)
Por lo que (For this reason)	(3)	
Por lo tanto (So)	(3) Por lo tanto (So)	(1)
Por tanto (So)	(2) Por tanto (So)	(2)
Pues (So)	(4) Pues (So)	(7)
	Por consiguiente (So)	(1)
<b>Counterargumentative (16)</b>	<b>Counterargumentative (24)</b>	
Ahora bien (However)	(1) Aún así (Even so)	(1)
De otro modo (In another way)	(1) Con todo (Yet)	(2)
Más bien (Rather)	(1) Más bien (Rather)	(1)
No obstante (However)	(3) No obstante (However)	(2)
Sin embargo (However)	(9) Sin embargo (However)	(17)
Por el contrario (On the contrary)	(1) Si bien (However)	(1)
<b>Information markers (13)</b>	<b>Information markers (25)</b>	
Ante esto (Seeing this)	(1) De igual forma (In the same way)	(1)
Después (After)	(2) Después (After)	(1)
Por otra parte (On the other hand)	(3) Por otra parte (On the other hand)	(5)
Por otro lado (On the other hand)	(4) Por otro lado (On the other hand)	(9)
Por un lado (On the other hand)	(1)	
Por una parte (On the one hand)	(2) Por una parte (On the one hand)	(3)
	Por último (Last)	(1)
	En primer lugar (Firstly)	(2)
	En segundo lugar (Secondly)	(3)
<b>Reformulators (4)</b>	<b>Reformulators (8)</b>	
Al fin (In the end)	(1) En realidad (In reality)	(4)
Es decir (That is)	(1) Es decir (That is)	(4)
En otras palabras (In other words)	(1)	
Por decirlo de una manera (So to speak)	(1)	
<b>Summative (39)</b>	<b>Summative (32)</b>	
Además (Also)	(10) Además (Also)	(11)

L1 ENGLISH	L1/L2 ENGLISH	
Aparte (Apart from that)	(2)	Aparte (Apart from that) (1)
Así como (As well as)	(2)	Es más (What is more) (1)
Aún más (Even)	(1)	Incluso (Even) (2)
También (Also)	(18)	También (Also) (17)
Hasta (Until)	(1)	
Incluso (Even)	(3)	
Del mismo modo (In the same way)	(1)	
Tampoco (Neither)	(1)	

Table 11. Conjunctions produced by the L1 Spanish group and the L1/L2 Spanish group.

MEANS AND STANDARD DEVIATIONS					
Types	L1 Spanish		L1/L2 Spanish		
	Mean	SD	Mean	SD	
Consecutive	1.08	1.47	1.00	1.06	
Counterargumentative	0.67	0.92	1.00	1.25	
Information	0.54	1.02	1.04	0.95	
Reformulator	0.17	0.48	0.33	0.56	
Summative	1.63	1.95	1.33	1.27	
<b>Total</b>	<b>0.82</b>	<b>1.35</b>	<b>0.94</b>	<b>1.09</b>	

Table 12. Means and standard deviations for each type of conjunction in the L1 Spanish and the L1/L2 Spanish groups.

In order to test if the interaction between group and conjunction type was significant a 2X2 ANOVA test with interaction was conducted. No significant differences were found between both groups in the number of conjunctions produced ( $p>0.05$ ), i.e., none of the groups produced significantly more conjunctions than the other. Significant differences were found in the use of summative conjunctions, they were used more often than the other conjunction types in both groups ( $p<0.05$ ). Finally, the interaction was found to be non significant ( $p>0.05$ ). i.e., the group did not influence the type of conjunction used. Figure 4 shows the distribution of each conjunction type in both groups.

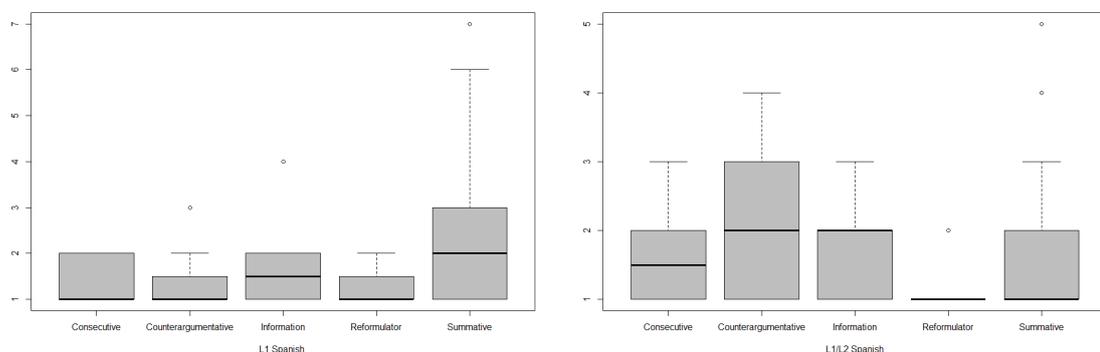


Figure 4. Distribution of conjunction types in the L1 Spanish and the L1/L2 Spanish groups.

In short, no significant differences were observed in the number of conjunctions used across both groups and both of them used summative conjunctions to a larger extent. The interaction also proved that the group (L1 Spanish or L1/L2 Spanish) did not influence the type of conjunction used.

## 6. Discussion

Our first research question aimed at finding out whether there would be differences in the frequency of use of conjunctions across the three groups. In the global comparison of groups, chi-squared analysis revealed that there were significant differences across Spanish speakers and English speakers, and across English speakers and L1/L2 English speakers. In contrast, no differences were found between the L1 Spanish and the L1/L2 Spanish group. The L1/L2 English group produced more conjunctions in their L2 English than English L1 speakers did, and they also produced more conjunctions in their L2 (English) than in their L1 (Spanish). However, these results only show accumulative frequencies for group. The number of conjunctions used were tabulated for individual essays and their means and standard deviations were compared using a 2x2 ANOVA test with interaction. This analysis revealed a more detailed and reliable picture of their use of conjunctions. It showed that the group does not determine the type of conjunction used. This is explained in the answers to research questions 2-4.

Our second research question addressed any possible differences in the use of conjunctions in L1 English and L1/L2 English. Findings revealed that the L1/L2 English group used more conjunctions than the L1 English group did. These results support the findings in previous studies (e.g Milton & Tsang, 1993; Zhang, 2000; Narita, Sato & Sugiura, 2004; Kang 2005; Yang & Sun, 2012, Lee, 2013). In some cases the more frequent use of connectors is attributed to L1 influence or to the lack of one-to-one correspondence between two languages, such as Korean and English, or to the lack of attention to connectors in writing instruction (e.g Lee, 2013). Others attribute the more frequent use to the lack of knowledge of the differences in usage between conjunctions and adverbial connectors, for example, in Japanese and English (Narita et al. 2004). A possible explanation for the L1/L2 English group larger use of conjunctions in the present study may be the lack of attention paid to the teaching of connectors. Conjunctions were part of the syllabus, but their teacher focused on issues which he considered more difficult (personal communication) such as hedging or the use of verbal tenses. He only mentioned the different types of conjunctions that could be found in a text. In other words, it may be the case that they received enough teaching input to know the different types of conjunctions, but it was not specific enough to understand their frequency of use, and how they were used across English and Spanish. Lee (2003) also observed this lack of specific attention to connectors in his study. He considered this to be a possible reason to explain why L2 learners produced more conjunctions than native speakers did. This is also related to the issue of what is more relevant in academic writing, being a native speaker, or having the specific training and expertise required to write in academic contexts. Römer (2009) conducted a study on the use of phraseological items comparing native and non-native writers of English by means of three corpora: the Cologne-Hanover Advanced Learner Corpus (Römer, 2007), the Michigan Corpus of Upper-level Student Papers (<http://elicorpora.info>) and the Hyland Corpus (Hyland, 1998). Her study concluded that when dealing with advanced-level academic writing, the distinction between native/non-native does not apply as much as experience or expertise. These seem to be more important than nativeness. It may be the case, as Römer (2009) suggests, that specific training and expertise in academic writing is more important than nativelikeness. The L1/L2 English group knew what conjunctions to use in spite of not having a large teaching input on their use. But they had a one-year training in academic writing. Although their training in conjunctions was limited, their experience in academic writing seems to be useful. In fact, in our study the 2X2 ANOVA test with interaction revealed that being a L1 native speaker or a L2 learner of English did not influence the type of conjunction used. However, at the same time, that limited training in conjunctions may have influenced the number of conjunctions used.

Moreover, in our study the L1 was not used in the classroom since the teacher was a monolingual speaker of English. However, the students were L2 users. They might have benefited from using their first language and

becoming aware of the similarities and differences of the use of conjunctions across languages. Using the L1 in the classroom has a number of benefits, one of them being a better understanding of grammar learning and use (Timor, 2012; Matsumoto, 2014).

Findings also revealed that both the L1 English and the L1/L2 English group used additive conjunctions more often than the rest of conjunction types. This supports the results found in other studies (e.g. Centonze, 2013) where additive conjunctions tend to be privileged. This can be due to conjunctive elements such as “and” being some of the most common conjunctions used (Halliday & Hasan, 1976) while causal or temporal conjunctions are less frequently occurring.

Our third research question analysed whether there would be differences in the use of summative, counterargumentative, consecutive, information markers and reformulator conjunctions between L1 Spanish and L1/L2 Spanish. Some studies indicate that being a multicompetent user can lead to the L2 influencing the L1 (Jarvis & Pavlenko, 2008). The purpose of including this research question was to analyse whether speaking two languages (Spanish and English) and thus having two languages in the learners’ minds would have an effect in the use of conjunctions in their L1 Spanish. Findings revealed that no significant differences were found across these two groups. In other words, the L1/L2 Spanish group used conjunctions in the same way as L1 Spanish speakers did. However, Spanish bilinguals and Spanish monolinguals tend to show differences in the L1. For example, in a recent study conducted by Alonso (2019) it was observed that in academic writing Spanish bilinguals differed from Spanish monolinguals in the use of adverbs as hedging devices. They also differed from L1 monolingual speakers of English. This provides evidence of convergence, which Pavlenko (2004) defined as the merging of L1 and L2 concepts leading to a single form that is different from both the L1 and the L2 one. In the case of conjunctions no such evidence was found. This may happen because conjunctions are easier to acquire than hedging devices and the latter require more training. In fact, even native speakers of English require specific training in the use of hedges in academic writing, and it is difficult both in L1 and L2 writing (Hyland & Milton, 1997)

Findings also showed that summative conjunctions, which roughly correspond to additive conjunctions in English, were used more frequently than any other type of conjunction in both groups. These results are parallel to those found in the L1 English and the L1/L2 English groups. It is probably due to the same reason: summative conjunctions are more common than other conjunction types.

This takes us to our fourth research question, which focused on the possible influence of CLI across groups. No influence of CLI was observed, neither from the L1 to the L2, nor from the L2 to the L1. This does not mean that the same speakers will not show CLI in other aspects of their writing; however, it indicates that the L1 is not a relevant factor in their use of conjunctions. Some studies indicate that proficiency level both in the L1 and the L2 may affect the nature and extent of CLI (Odlin & Jarvis, 2004; Jarvis & Pavlenko, 2008). The L1/L2 English group shows an advanced level of English (B2). As indicated above, it may be that their proficiency level inhibits CLI.

## **7. Conclusion**

Using a study design based on the multicompetence framework has enabled us to establish multiple comparisons (monolingual L1-bilingual L1, L1-L2, L2-L1) and analyse crosslinguistic influence between the learners’ L2 and L1 going in both directions. Findings revealed that all groups used additive/summative conjunctions more frequently as they are more common in writing than other conjunction types. They also revealed that the L1/L2

English group used more conjunctions than the L1 English group, probably due to lack of specific training in the use of conjunctions. The L1/L2 English group training in conjunctions in academic writing was probably not specific enough to understand how they are used across English and Spanish. This may have led the L1/L2 English group to use more conjunctions. It seems that training in academic writing may matter more than being a native or non-native speaker of English. The comparison between the L1 Spanish and L1/L2 Spanish groups indicated that being bilingual does not affect the use of conjunctions in the native language. Finally, using the multicompetence framework has enabled us to determine that CLI does not apply in the use of conjunctions across groups, neither from the L1 to the L2, nor from the L2 to the L1. This indicates that the participants' proficiency level seems to inhibit the occurrence of CLI.

Some pedagogical implications can be drawn from this study. Training on the use of conjunctions seems to be necessary and it may be advisable to use the L1 and the L2 in the classroom. L2 learners show a multicompetent mind and only resorting to the L2 may prohibit learners from benefitting from the advantages of knowing two languages. It would also be advisable to compare groups of L2 learners who receive training in academic writing with those who do not. This would help to see whether the results in the present study are replicated.

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## Appendix

Table 5 indicates the individual frequencies of conjunctions produced by L1 Spanish speakers, while table 6 shows the ones produced by L1/L2 Spanish speakers. Table 7 and 8 show the results of individual frequencies for L1 Spanish and L1/L2 Spanish groups respectively.

Subject	Consecutive	Counterargumentative	Information marker	Reformulator	Summative
1		1	1		3
2	2				
3	2		2		6
4					3
5	1	3			
6	2	3		1	
7	7	1			
8	2			2	5
9					2
10	1		1		1
11	1	1	1		7
12		2			1
13					1
14	1	1			
15					2
16	1		4		2
17					1
18	2	1		1	2
19	1		2		1
20	1				
21		1			
22	1	1			1
23	1				
24		1	2		1
Total	26	16	13	4	39

Table 5. Individual results for the L1 Spanish group.

Subject	Consecutive	Counterargumentative	Information marker	Reformulator	Summative
1	2			2	2
2	2	3	1	1	3
3	2		1		
4	4	1	2		1

Subject	Consecutive	Counterargumentative	Information marker	Reformulator	Summative
5		1	2		
6	1		1	1	
7	1		2		1
8	1		2	1	
9		1		1	1
10		3	2		1
11	1	3	1		1
12		4	2		1
13		1			1
14			1	1	5
15	2		2		2
16	2	2	1		2
17			2	1	1
18	2				
19	1	2			
20		2	3		1
21					2
22	2				4
23					2
24	1	1			1
Total	24	24	25	8	32

Table 6. Individual results for the L1/L2 Spanish group.

Subject	Additive	Adversative	Casual	Temporal
1	12	1	1	
2	5	3		
3	7	1		
4	12	1		
5	6			
6	3	2		1
7	1			
8	6			
9	3		1	
10	1			
11	3			
12	1			
13		1		
14	3	1		
15	4	1		
16	7	1		

Subject	Additive	Adversative	Casual	Temporal
17	5	1		1
18	4	3		
19	9	2		
20	2	1		
21	3	2	1	
22	5	2		
23	3		1	
24	1	2		
<b>Total</b>	<b>106</b>	<b>25</b>	<b>4</b>	<b>2</b>

Table 7. Individual results for the L1 English group.

Subject	Additive	Adversative	Casual	Temporal
1	6	3	3	
2	2	2	2	
3	5	2	1	2
4	8	4	4	1
5	2	2		
6	8	1	1	
7	5	4		1
8	5	1	1	2
9	4	1		
10	8	2		
11	6	2	2	1
12	5	3		
13	10		1	1
14	10			
15	11	4		1
16	9	1	1	
17	5	3	1	
18	4	1	1	1
19	5	1		1
20	9	3		1
21	6	1		1
22	4		1	3
23	7		1	
24	8	1	1	
<b>Total</b>	<b>152</b>	<b>42</b>	<b>21</b>	<b>16</b>

Table 8. Individual results for the L1/L2 English group.