

## **The cross-linguistic ability to classify content words in L1 Spanish and FL English of undergraduates at Universidad Católica Argentina**

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*(First received: 26/05/2020; final version received: 13/08/2020)*

### **ABSTRACT**

This case study investigated the cross-linguistic ability to classify content words or nouns, verbs, adjectives and adverbs of undergraduates whose L1 is Spanish and are attending an A1 English course at university level. It was a transversal, descriptive and correlational research study. The descriptive objectives were to determine the level of effectiveness in the classification of content words in L1 as well as FL. The correlational objective determined the relationship between the participants' performance level in the classification between their L1 Spanish and their FL English. Data were collected by means of an instrument which consisted of two A1 level texts, one in Spanish and the other in English. Each component of the instrument asked students to classify 40 underlined content words into their category. Results confirmed that there is a transfer between the ability to group content words in the L1 and in the FL, the higher the effectiveness in Spanish, the higher in English.

*Keywords:* cross linguistic study, content words, linguistic transfer, Spanish-English.

### **RESUMEN**

Este estudio de caso investigó la habilidad interlingüística para clasificar palabras de contenido sustantivos, verbos, adjetivos y adverbios de estudiantes universitarios cuya lengua madre es español y están tomando un curso de inglés nivel A1. Fue un estudio transversal, descriptivo y correlacional. Los objetivos descriptivos fueron determinar el nivel de efectividad en la clasificación de palabras de contenido en ambos idiomas; mientras que el objetivo correlacional determinó la relación entre el nivel de eficacia en la clasificación en español y en inglés. Los datos fueron recolectados mediante un instrumento compuesto por dos textos de nivel A1, uno en español y otro en inglés. Cada componente tenía 40 palabras subrayadas que los participantes debieron clasificar en la categoría correspondiente. Los resultados confirman que hay transferencia entre la habilidad para agrupar palabras de contenido en L1 y LE, a mayor efectividad en español, mayor efectividad en inglés.

*Palabras clave:* estudio interlingüístico, palabras de contenido, transferencia lingüística, español-inglés.

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### Introduction

The Universidad Católica Argentina -UCA-, Facultad Teresa de Ávila, is located in Paraná, the capital city of Entre Ríos province, Argentina. Its English courses have the teaching methodology of English for General Purposes. These have two annual levels, namely English I and English II, which undergraduates usually take between their first and third year of studies. Both courses are mandatory requisites of the curricula irrespective of the degree pursued. English is part of the core courses together with Anthropology and Ethics, Philosophy, Theology, and Moral and Social Commitment.

Within the scope of English I and the greatest part of English II, students are presented with the contents established for an A1 level by the CEFR. However, the last portion of the English II course, about 4 classes, is devoted to the teaching of reading comprehension and translation skills of career-related texts, i.e. the teaching methodology veers into that of English for Specific Purposes.

The textbook *Speak Out Starter* second edition by Eales F. Oakes S. and Dimond-Bayer S., Pearson Education (2016) is used as the main course guide of contents and coursework for the English for General Purposes approach. As for the English for Specific Purposes section, discipline-oriented materials are prepared by the module teacher making use of non-adapted career-related texts.

Throughout the whole course of studies, but mainly during the second part of English II, an issue of remarkable significance arises when the time for the introduction of word formation in English comes. In order to facilitate the recognition and understand the meaning of content words (nouns, verbs, adjectives and adverbs) the use of prefixes and suffixes in the English language is introduced. To exemplify, students are shown that typically the ending *-ly* corresponds to an English adverb, which is the equivalent to the Spanish suffix *-mente*. It is then when many students ask questions such as: “What is an adverb?” “How do I identify an adverb?”, often arguing they do not recall what lexical categories are and how they function in their L1. It goes without saying that the doubt is not exclusive to adverbs but applies to the other three grammatical categories alike. That is the moment when the teacher faces a problematic situation since undergraduates are thought to have L1 prior knowledge on grammatical categories and derivative words which should have been studied in primary and secondary school.

Learning a FL in a classroom context, as opposed to acquiring it in a naturalistic environment, is thought to make the relationship between prior prescriptive grammatical knowledge in the L1 useful for learning the FL. Presumably, FL learners -FLers- who know that in their L1 verbs refer to actions or states will be able to transfer that knowledge into the comprehension and functioning of verbs in the FL, despite the differences that both linguistic codes may have.

Thus, some questions emerged: do students really ignore how content words in their L1 work, or have they just forgotten how to technically explain it, but still understand their

functioning? Does L1 grammatical knowledge about lexical categories positively transfer into FL performance? Should EFL practitioners revise basic L1 grammatical contents to facilitate FL learning? These questions motivated a research project. The first three correlate with its objectives, and recommendations are given regarding the fourth one.

The study presented here investigated cross-linguistically the level of efficiency undergraduates at UCA, Facultad Teresa de Ávila, have when identifying the grammatical categories noun, adjective, verb and adverb in their L1 Spanish and their FL English. It also analysed whether that efficiency correlates between the undergraduates' L1 and FL interlanguage performance. It was hypothesized that the research participants' level of effectiveness in the classification of grammatical categories in the L1 correlates with their level of effectiveness in the FL. The better the performance in Spanish, the better the performance in English.

## **Theoretical framework**

### Cross-linguistic research

Cross-linguistic research refers to the underlying idea that languages are compared, in this case Spanish and English. Küntay (2014, p. 318) states that “crosslinguistic research has proven essential in addressing long-standing questions and opening new avenues in research about language development.” Furthermore, the author claims it can be adopted to “assess any domain of language development from phonological to pragmatic development ... [and that] can be employed with populations of any age”.

### Terminology clarification

It is worth mentioning that, for the sake of this article, the terms *learning* and *acquisition* will be used as synonyms. Likewise, the terms *undergraduates*, *research participants*, and *university students* are considered synonyms and will be used hereafter to instinctively refer to the sample subjects who are undergraduates attending the English II module at Universidad Católica Argentina, Facultad Teresa de Ávila. The words *classification*, *grouping* and *sorting* refer to one and the same thing, i.e. correctly grouping together same lexical types. Finally, the expressions *grammatical categories*, *lexical categories* and *content words* will be used interchangeably to signify nouns, adjectives, verbs and adverbs, i.e. the word classes that are part of this work and not all the parts of speech that exist.

The rest of this theoretical section is organised into three broad topics: general foreign/second language learning concepts of relevance for the study, FL learners, and the grammatical underpinnings that form part of the analysis.

## FL/L2 learning concepts

### Interlanguage

The same way that L1 grammar is not acquired overnight, the learning of a FL/ L2 is a process. In Fromkin's (2011, p. 362) words: "The intermediate grammars that L2ers create on their way to the target have been called *interlanguage* grammars." [emphasis was added].

We should take into account that the term *grammar* in this context does not refer to the teaching grammars prepared for FL/L2ers to aid them with the study of a new language, but rather to what is often called *descriptive grammar*, which is the whole set of rules speakers unconsciously possess about their language, i.e. phonology, syntax, morphology, semantics and lexicon.

The importance of the concept of interlanguage for this study is the understanding that, when in the process of learning a FL what the research participants are going to be assessed on is their interlanguages manifestation. This manifestation is also called *linguistic performance*, a concept which is explained further on.

### L1 influence into FL/L2 learning

It cannot be denied that a person's L1 has an impact on his/her FL/L2. This is most evident in phonological terms. Usually, a person who learns the FL/L2 after childhood will have an accent that traces back to his/her native language. Similarly, other aspects of the L1 can be transferred into the FL/L2, morphology and syntax. This has been reported to occur mainly in the initial learning stages (Fromkin, 2011). However, it would be imprecise to say that all linguistic errors manifested in FL/L2ers' interlanguage are simply the result of their L1 influence. It is not yet understood why certain rules of the L1 transfer into the FL/L2 interlanguage and others do not. As Fromkin puts it (2011, p. 365):

It is clear ... that although construction of the L2 grammar is influenced by the L1 grammar, developmental principles —possibly universal—also operate in L2 acquisition. This is best illustrated by the fact that speakers with different L1s go through similar L2 stages. (p. 365)

The fact that language learning occurs in stages which are predictable is one of the arguments that supports the idea of a Universal Grammar, or innate capacity human beings possess which allows them to acquire language (Chomsky, 1965, 1986). One other strong claim in favour of this view is the fact that the deaf develop language, sign languages in this case, in spite of being unable to hear and imitate sounds. This demonstrates that language acquisition does not necessarily depend on listening and repeating sounds, but it is an inborn capacity that human beings are endowed with just for the fact of being humans. What is more, not only do deaf children go through all the same stages hearing children do when learning their mother tongue, but also sign languages are as complex as any other language (Fromkin, 2011).

Language transfer, “or the influence of a person’s knowledge of one language on that person’s knowledge or use of another language” (Jarvis & Pavlenko, 2008, p. 1) is also referred to as *cross linguistic influence*, or simply *transfer*. Throughout this paper the three terms are used synonymously.

### Implied Linguistic Competence vs Metalinguistic Knowledge

Learning a FL/L2 is not as easy as learning an L1. Except for people with serious mental disorders, every human being acquires a language, the language spoken in his/her context. Not everybody, however, is capable of mastering a second language, especially past adolescence. Paradis (2009, p. 110) contends that early bilinguals —children up to the age of 4 or 5— “acquire the second language implicitly, like the first, using procedural memory ... after age 6 or 7, second language appropriation relies more on conscious learning, thus involving declarative memory”. Procedural memory refers to the automatic, unconscious memory system that underlies the process through which any L1 is acquired, i.e. implied linguistic competence -ILC-. Being automatic, ILC means effortless language processing, which is unaware of prescriptive grammar rules and focuses attention on communication of meaning. It controls prosody, phonology, morphology, syntax and mental lexicon. ILC is opposed to metalinguistic language knowledge —MLK— which is subserved by declarative memory, the fast and demanding conscious memory system associated with the learning and representation of facts and events that cannot be inferred but need to be learnt by rote, such as irregular verbal inflexions.

L1 and early FL/L2ers easily acquire language implicitly through ILC, while later FL/L2 learners find it far harder. According to Paradis such difficulty may be caused by native language entrenchment, called proactive negative influence of L1-, meaning that learners need to recourse more to declarative memory, probably due to the loss of brain plasticity after the optimal FL/L2 period. Paradis (2009, p. 135) asserts: “Skills in general (and implicit linguistic competence processing in particular) acquired during their optimal period are more resistant to attrition through disuse than learned material, but the acquisition of skills after their optimal period becomes more difficult with increasing age.”

The author explains that the optimal period applies only to components related to implicit linguistic competence, though not to vocabulary since this is controlled by declarative memory. The sound-meaning pairing of words and words lexical properties —vocabulary— whether in the L1 or in the FL/L2 depends on conscious awareness, so it can be learned and improved throughout life. The importance of this fact is that learning the explicit aspects of words is not affected by FL/L2 age onset and can be enlarged and improved through instruction.

## The learners

### Intelligence

Intelligence is a broad concept. Originally, emphasis was placed on two types of intelligence: logical-mathematical and verbal-linguistic. Those are the kinds mainly assessed through the IQ (Intelligence Quotient) test. That test was designed at the beginning of the 20<sup>th</sup> century by the French psychologist Alfred Binet and then updated by Spearman (1927) to evaluate children's intelligence. Half a century later, Piaget (1950, 1952) studied the concept of intelligence using in-depth IQ tests.

In time, however, a more complex idea of intelligence started to be elaborated. Such is the case of the multiple intelligences theory developed by Howard Gardner in the 1980's. Gardner (1983, 1993, 1997) claims that there are at least eight types of intelligences from which people draw on when faced with a situation to resolve. The eight identified intelligences are linguistic intelligence, logical-mathematical intelligence, spatial intelligence, musical intelligence, bodily-kinesthetic intelligence, naturalistic intelligence, interpersonal intelligence, and intrapersonal intelligence.

### What intelligence is and what it is not

Gardner developed a well-founded study to determine what intelligence is. The criteria implemented are the following (Gardner, 2011, p. 487):

- [An intelligence] should be seen in relative isolation in prodigies, autistic savants, stroke victims, or other exceptional populations. In other words, certain individuals should demonstrate particularly high or low levels of a particular capacity in contrast to other capacities.
- It should have a distinct neural representation – that is, its neural structure and functioning should be distinguishable from that of other major human faculties.
- It should have a distinct developmental trajectory. That is, different intelligences should develop at different rates and along paths which are distinctive.
- It should have some basis in evolutionary biology. In other words, an intelligence ought to have a previous instantiation in primate or other species and putative survival value.
- It should be susceptible to capture in symbol systems, of the sort used in formal or informal education.
- It should be supported by evidence from psychometric tests of intelligence.
- It should be distinguishable from other intelligences through experimental psychological tasks.
- It should demonstrate a core, information-processing system. That is, there should be identifiable mental processes that handle information related to each intelligence.

The other side of the coin is that sometimes there is no clear-cut between an intelligence type and other cognitive abilities. Some lines of demarcation can be drawn, though. Intelligence is not the same as (Gardener, 2011):

- Transversal abilities such as motivation, personality, determination, creativity or attention which “apply across a range of situations” (Gardener, 2011, p. 491) and whose performance may vary from a certain task to another. Intelligence functions on specific content: math, music, language or space management, where transversal capacities are put in use.
- Learning style, the way learners better perceive, process, understand and retain new knowledge. To exemplify, some people learn better by touching or moving than by listening or paying attention to visual aids. There are those who prefer to study on their own in a quiet environment, while others make better profit from group sessions and some background music.
- Memory, which also has varied forms. For example, procedural memory plays its role when performing an automated task such as driving; semantic memory acts when recalling concepts, facts, object functions; episodic memory is the one that allows recalling experiences and events within its context.
- Skills, which are “the cognitive performances that result from the operation of one or more intelligences” (Gardner, 2011, p. 492) are influenced by context. A successful MTV presenter may be skilled out of the combination of linguistic, interpersonal musical and bodily-kinesthetic intelligences, for example.

To sum up, after the discussion presented above, it becomes clear that the field of intelligence research is an extremely fertile and prolific one. Any attempt to conduct research that covers just one of the intelligence types described would be a feat hard to accomplish which exceeds the scope of this case study. Thus, some considerations must be made. Firstly, the intelligence here studied is circumscribed to the domain of linguistic intelligence, however, not the full range of abilities that entail the building up of that intelligence were covered. Secondly, it is the sample subjects’ ability to group together lexical items both in their L1 and FL which was particularly assessed. Lastly, the term ability is understood as a capacity to fulfill a task, in this case the linguistic task of classifying content words in English and Spanish according to their grammatical category.

### Competence vs performance

The extent to which humans can understand a language does not exactly correspond to the extent to which they can put that language into use. This idea was firstly published by Chomsky (1965), who called that dichotomy *competence* and *performance*, respectively. Later, Chomsky (1988) advanced one step further in the distinction and referred to competence as *internalised grammar* and to performance as *externalised grammar* to show two opposing views of Linguistics’ object of study.

The case study here presented focused on the observable phenomenon of the research participants' linguistic production. In Chomskyan Linguistics, it is the undergraduates' performance or externalised grammar about their ability to cross-linguistically classify lexical categories that was assessed.

### Prior knowledge

When planning the contents for a study course teachers start from considering their learners' prior knowledge. Hardly will an EFL practitioner expect his/her students to know nothing of the English language due to the status of *lingua franca* it has acquired. Consequently, English has turned into a common presence, not only in academic or business contexts, but also in daily activities, such as listening to music, watching a series, playing video games, or studying. Ausbel D. (1968) early understood that for new knowledge to be apprehended it requires 1) to be potentially meaningful, and 2) to be related meaningfully to learners' prior knowledge. As a result, the path for new learning should start from prior knowledge, as teachers usually do.

Analogously, the grammatical aspects that were here studied, precisely content words in Spanish, are understood to be part of the research participants' prior knowledge. The greatest majority of undergraduates at UCA, Facultad Teresa de Avila are from the province of Entre Ríos. According to the Primary School Level Curriculum Design of Entre Ríos Province (2011a) and the Secondary School Level Curriculum Design of Entre Ríos Province (2011b) elaborated by the *Consejo General de Educación -CGE-* [General Council of Education] of Entre Ríos Province, both during primary and secondary school learners receive a significant number of class hours of Spanish Language. Making an average between primary and secondary levels, Spanish Language class hours double Sciences, and triple Physical Education, Arts and Technological Studies.

The study of lexical categories in the mother tongue is assigned a place of particular significance across both schooling levels in Entre Ríos Province. Let us consider some excerpts from the curriculum designs that support this statement. As early as the first stage of primary school (year 1, 2 and 3) the curriculum design indicates that by the end of that period learners should be able to recognise (CGE, 2011a, p. 73)

- words used for naming (proper and common nouns)
- words used for describing nouns (descriptive adjectives)
- words used to indicate actions (action verbs)
- words used to indicate time, place and manner (time, place and manner adverbs)
- word families (simple derivative words)

The government document further indicates that those linguistic contents should be deepened during the second stage of primary school (years 4, 5 and 6). This time, all lexical categories should be taught, practised and reflected upon focusing on their morphological and semantic aspects. Once again, derivative words are a planned content. During the second



stage of primary school, however, they are supposed to be presented covering their full complexity in the Spanish language. This includes not only word formation (the use of prefixes, suffixes and compound words) but also the comprehension of derivative words' semantic function in order to predict spelling, deduce the meaning of unknown words, and broaden vocabulary (CGE, 2011a).

By the same token, government authorities urge secondary schools to stimulate reflection on language through “*constant and systematic* work on normative, textual or grammatical aspects” [emphasis was added]. They instruct to revise, study and reflect on contents taught during primary school level regarding grammatical categories. Likewise, they mention that “the identification and classification of lexical categories should be studied for the purpose of encouraging reading abilities, sentence and text comprehension and production, and text genre understanding”. (CGE, 2011b, p. 58)

## Grammatical aspects

### Word formation in the mind

Particularly when teaching English for Specific Purposes —ESP—, students are presented with the idea that some words derive from others. To exemplify, in an ESP course meant for Law undergraduates at UCA Facultad Teresa de Ávila, the course material designed by Menis and Muzachiodi (2008, p. 1) gives some examples of the use of derivatives:

Divorce finally became legal in 1992.

Which of the drivers is legally responsible for the accident?

The legalization of marijuana consumption is a controversial issue.

This document needs to be legalized.

It is illegal to sell alcohol to minors in our society.

Then, the course material indicates: “The words *legally*, *legalization*, *legalized* and *illegal* are derivative words “, meaning that they come from *legal*. Unlike words such as *law*, *count* or *pen*, which exist on their own, some words are structurally complex and are made of chunks, i.e. they are derivative words. *Law*, *count* or *pen* are said to be made up of a single morpheme, “the minimal linguistic unit... an arbitrary union of a sound and a meaning (or grammatical function) that cannot be further analyzed” (Fromkin, 2011, p. 62). *Legally*, *legalization*, *legalized* and *illegal* are made up of different morphemes that together form one word.

One question that has arisen is whether the mind stores words as single morphemes or with their structural complexity undivided. This issue is particularly important because it may orient language practitioners in their teaching practices, especially to make informed decisions when teaching derivative words. Aitchinson (2012, p. 116) concludes: “words are stored primarily as wholes but speakers are able to split up words if necessary”. Thus, a person may have acquired the meaning of the word *unabridged* as a whole, but if put to test,

he/she will be able to understand what *abridged* means by interpreting that the removal of the prefix *un-* has altered the word's meaning. Similarly, he/she will know that the use of that prefix in another lexical item will transform the word into its opposite.

The structure of words derived from a root to which prefixes and suffixes are attached is a feature shared by the English and the Spanish language. This is one of the reasons why it is theorised in this study that a person's ability to understand a word in his/her L1 Spanish may positively transfer into his/her FL English.

### Knowing a word

Let us consider a further question, what does it mean to know a word? Be it an L1 or FL/L2, knowing a word means knowing its spelling, sound, meaning, and grammatical category or syntactic class. Most literate speakers know how to write the words of their language, even if they misspell them sometimes. If a person does not know a language he/she will not be able to say how many words are there in a phrase, so "knowing a word means knowing that a particular sequence of sounds is associated with a particular meaning" (Fromkin, 2011, p. 37). Moreover, the sound-meaning-spelling connection is completely arbitrary in words, that is the reason why homophones such as *here* and *hear* exist, sharing the same pronunciation but different spelling and meaning. Conversely, synonyms are words which share meaning but do not have the same spelling or sound, for example *trousers* and *pants*. Finally, the aspect about knowing a word which most concerns this study is that of syntactic class. *Fast* can be both an adjective or an adverb even if a person cannot consciously tell their grammatical category apart. However, that person will not probably misuse it in a sentence. This can be proved by the fact that the phrase '*He's a fast*' sounds incorrect to any English speaker while '*He's a fast runner*' or '*He runs fast*' sound right. People's mental lexicon contains information about whether a word is a noun, adjective, adverb, verb, preposition, etc. otherwise they would not be able to detect ungrammatical structures.

### Content words vs function words

When using words in context it is considered that not all of them have the same importance for conveying meaning. Aitchison (2012, pp. 99-100) uses an analogy between word functions and building materials to make a wall. Building materials can be divided into two broad groups: on the one side the bricks, and on the other side the mortar or cement. She explains that:

the bricks can be equated with 'content' words, those words that have an independent meaning, such as *rose*, *queen*, *jump*. The mortar represents the 'function' words, those whose role is primarily to relate items to one another, as is '*Queen of Hearts*', '*work to rule*', '*eggs for breakfast*'.

Content words carry meaning on their own, so nouns, adjectives, verbs and adverbs belong to this category or, put differently, they are the bricks. Content words are sometimes

called open class words (Fromkin, 2011, p. 39) “because we can and regularly do add new words to these classes”. The noun *selfie*, for example, did not exist until recently when cameras were incorporated into smartphones and people started taking pictures of themselves, sometimes aided by a *selfie stick*, another neologism. In the spoken language, content words are normally marked with a strong form of pronunciation, outstanding from the rest of the words.

Function words, or the mortar, is a category formed by conjunctions, articles, auxiliary verbs, pronouns and prepositions. These words do not carry meaning by themselves but help to connect the utterances grammatically. In consequence, most of the time, a sentence can be understood even if a person is unaware of the meaning or uses incorrectly a function word. Also, for not being as *relevant* as content words, function ones are normally pronounced in their weak form. One other distinctive feature of this category is the fact that it is not as receptive as that of content words, i.e. coinage of content words is highly more likely than coinage of function words. Therefore, they are referred to as close class words.

Interestingly, it seems that the role that content and function words play in the mental lexicon is also different. Fromkin (2011, p. 348) informs that function words appear later in children language acquisition. Language development proceeds in stages, which are universal: babbling, holophrastic and telegraphic stages. In the telegraphic stage children already express themselves with correct word order and rules for agreement and case, which shows their knowledge of structure. However, though the telegraphic stage is the closest to adult speech and children can produce longer sentences, they still lack the use of function words. Fromkin (2011, p. 40) also argues that slips of the tongue only occur with content words when he reports that “the switching or exchanging of function words has not been observed.” What is more, according to Aitchinson (2012, p. 99), people hardly ever confuse word lexical type in slips of the tongue. On the contrary, when they mistakenly choose a word for another “nouns change place with nouns, verbs with verbs and adjectives with adjectives”, not reporting function words.

From the arguments put forward it seems evident that content words are more meaningful, earlier acquired and play a more important role as building blocks of languages.

### Identifying word class

Whether in English or in Spanish there are three paths that can be followed to identify word class: semantic, morphological and/or syntactic. There can be occasions when just one of them is enough to determine if a word belongs to the nouns, adjectives, verbs or adverbs category. In contrast, there are cases when considering a combination of paths will be the most appropriate course of action.

The semantic path refers to the meaning a word conveys. Hence, most English speakers will know that *table* refers to a piece of furniture, that it is a noun, and will use it accordingly in a sentence without much difficulty. Similarly, they will know *nice* is an

adjective, *sing* is a verb and *usually* is an adverb. Useful as it may be, semantics is not always enough on its own since the same word can act differently. The words *exhibit* or *play* can be both nouns and verbs. The word *that* can belong to three lexical types: a pronoun as in ‘I like *that*.’, a determiner as in ‘I like *that* hat.’, and a conjunction as in ‘I learned *that* she’s new here’. Oddly enough, the same word can be positioned twice and sequentially in a sentence but have different lexical functions. Such is the case of ‘I know *that that* hat is mine’, being the first *that* a conjunction, whereas, the second is a determiner. So as to illustrate semantics complexity with the case of a word in Spanish, the verb *retar* can be used. It has two completely different meanings: *to challenge* or *to scold* and, once again, it could be used in a single chunk with both: ‘Me *retó* a que le de un reto’ [He challenged me to scold him].

Another problem may arise when the meaning of the word is unknown. One of the ways of solving it is by considering its morphological aspect, which is the form a word has. For example, it is commonly known that the suffix *-tion*, or its Spanish equivalents *-cion/ccion/sion*, form derivative nouns. Simply by reading the word *abrogation* a person may not understand its meaning but will know it is a noun just by its ending. Verbs may be recognised by their typical suffixes, such as *magnify*, *stigmatise* or by their inflectional properties manifested in the regular past *-ed* ending, the continuous forms *-ing* ending and the third person singular *-s/es/ies* endings. As in the case of the semantic path, the morphological one is useful though not infallible since it can be occasionally confusing or misleading. For instance, typically, the suffix *-ly* corresponds to a derivative adverb in English, being *-mente* its correspondent morpheme in Spanish. The words *scholarly*, *wobbly* or *friendly*, however, are adjectives. Likewise, the Spanish words *demente* and *inclemente* are not adverbs but adjectives, instead. To give another example, the word *studies* can act either as a verb into the third person singular of the Present Simple Tense, or the noun *study* in its plural form.

When semantics and morphology are not enough, we can resort to syntactics, which is the position a word occupies in a sentence. That is to say words are not considered in isolation but together with their context of occurrence. *Poor* can be an adjective as well as a noun if not context is provided. Yet, its grammatical category becomes clear in ‘The *poor* speak very *poor* French’. In the first case, *poor* is a noun because it is preceded by an article and is the subject of the sentence. In the second case, *poor* is an adjective, it is placed before a noun, a typical position for adjectives in the English language, and is modified by an adverb. Adverbs which do not end in *-ly* can also be identified making use of their syntactic position. *Very* in the example mentioned above is an adverb because it precedes an adjective and adverbs can modify verbs, adjectives or other adverbs. In Spanish, *bastante* is an adverb and can be recognised in this phrase ‘Esta pizza es *bastante* rica’ since it is modifying the adjective *rica*.

## Methodology

### Research design

The project explored second-year English undergraduates' cross-linguistic performance on word type classification. It was a transversal, descriptive and correlational research study. The descriptive objectives were to determine the level of effectiveness in the classification of content words in L1 as well as FL. The correlational objective determined the relationship between the participants' performance level in the classification between their L1 Spanish and their FL English.

The results were analysed via the software SPSS. Descriptive statistics, i.e. mean frequencies, averages and distributions were calculated for all the results. On the other hand, inferential statistics were employed to assess the correlations between results in Spanish and results in English.

### The instrument

For the sake of this research the instrument designed consisted of two components: a text in Spanish and a text in English. The first one is an extract of the story *Continuidad de los parques* by the Argentinian-born France-based author Julio Cortázar. The excerpt selected had around 120 words where 40 words were underlined, name it 10 nouns, 10 adjectives, 10 verbs and 10 adverbs. Below the text there was a four-column chart for the instrument takers to classify the underlined words into each category. The research participants were not aware of the fact that the correct number of lexical items per category corresponded to 10.

The second component was an adapted excerpt of a children's tale in English —*The foolish lion*—, whose level of linguistic complexity equaled the research participants' FL interlanguage level, i.e. A1, according to the CEFR. This text was of about the same length of the first component. Likewise, there were 40 content words underlined —corresponding 10 to each grammatical category studied—, and there was a chart for the grouping of highlighted items into the correct word type. Once again, the instrument takers were not informed that the correct number of lexical items per category corresponded to 10.

The instrument also collected sociodemographic data which included age, sex and degree being pursued. There is a copy of it in Appendix 1.

### The sample

The research was conducted by the end of August 2018 with a non-probability intentional sample circumscribed to university students attending the module English II at UCA, Facultad Teresa de Avila. Second year students of English were chosen since undergraduates taking the first level were just being introduced into the English language. A total of 60 students participated, 10 males and 50 females, whose average age was 22, and from various degrees: Law, Psychology, Educational Psychology and Economy. See figure N° 1.

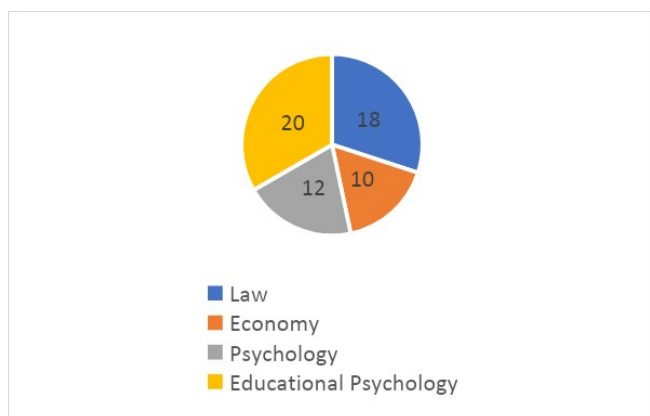


Fig. 1. Distribution of subjects per degree pursued

### Data collection

The instrument was applied on two different days after the English class. Undergraduates had been previously informed about the research study and its aims, and explicitly expressed their interest to participate. The sheets of paper bearing both components of the instrument together with sociodemographic questions were distributed and students spent about 20 minutes resolving it. They were informed that neither dictionaries nor any other resource could be used to help them group together the words into their grammatical category.

The results obtained were systematised with the SPSS software.

### **Results**

The first objective of this study was to determine the research participants' level for classifying the grammatical categories noun, adjective, verb and adverb in their L1 Spanish. A perfect score of a 100% of effectiveness meant having 10 correct lexical items in each word category. Table N°1 specifies how grading was allotted according to the number of correct answers.

N° correct answers	Concept
10	Excellent
9-8	Very Good
7	Good
6	Satisfactory
5	Regular
4-3	Poor
2-1	Very Poor

Table 1. Correct answers and their corresponding concepts

As table 2 shows the highest mean score, at 8.8167 was performed at verbs classification, followed by adverbs at 7.65. The mean score for nouns was 6.8167 and the

category adjectives was a little below, at 6.0833. It is to be noticed that in the case of nouns grouping the mode —i.e. the most frequent number of correct classifications— was 8, which is the most distant between median and mode values. This may imply that there were students who performed at a very good level of effectiveness while others did poorly.

	Noun S.	Adjective S.	Verb S.	Adverb S.	Total Average in %
Mean	6.8167	6.0833	8.8167	7.6500	73.166
Median	6.8500	6.1786	9.0750	7.6774	
Mode	8.00	7.00	10.00	7.00	

Table 2. Statistical data about content words classification in L1 Spanish

It can be said that undergraduates at UCA, Facultad Teresa de Avila perform satisfactorily at adverbs grouping, well at nouns and adjectives classification, and very well at verbs sorting.

The second objective of this study was to determine the research participants' effectiveness in classifying the grammatical categories noun, adjective, verb and adverb in their FL English. Table 3 gives an overview of the results obtained. In this case the highest rate was that of nouns grouping and immediately after verbs classification at 7.55 and 7.30 respectively. Adjectives sorting was in third place at 6.30 followed by adverbs grouping which was the poorest category in the English language at 4.7667.

	Noun E.	Adjective E.	Verb E.	Adverb E	Total Average in %
Mean	7.5500	6.3000	7.3000	4.7667	64.79%
Median	7.8214	6.2800	7.4400	4.8095	
Mode	8.00	6.00	7.00	4.00	

Table 3. Statistical data about content words classification in FL English

It can be noticed that the mode for nouns in both languages is on equal footing at 8, while the rest of the figures differ from one language to the other. At English nouns, adjectives and verbs classification, the subjects had a satisfactory performance compared with a poor level of effectiveness in adverbs.

The third objective of this case study was to analyse the correlation between the research participants' effectiveness in classifying grammatical categories in their L1 Spanish and FL English. As table 4 shows there is a statistically significant correlation between the overall ability (total S. and total E. intersection) to classify content words in L1 and FL ( $r = .503$ ;  $p < .01$ ). This correlation is positive, meaning that the higher one variable the higher the other, and can be described as strong.

	Noun S.	Adjective S.	Verb S.	Adverb S.	Total S.
Noun E. Pearson correlation (bilateral) significance	.403** .001				
Adjective E. Pearson correlation (bilateral) significance		.216 .097			
Verb E. Pearson correlation (bilateral) significance			.329* .010		
Adverb E. Pearson correlation (bilateral) significance				.457** .000	
Total E. Pearson correlation (bilateral) significance					.503** .000

\* The correlation is significant at level 0.05 (2-tailed)

\*\* The correlation is significant at level 0.01 (2-tailed)

Table 4. Correlation between effectiveness in content words classification in L1 and FL

To make a more thorough correlational analysis each word class in the L1 Spanish was contrasted with the same lexical item in the FL English. The most statistically significant cross-linguistic correlations appeared between adverbs ( $r = .457$ ;  $p < .01$ ) and nouns ( $r = .403$ ;  $p < .01$ ). Verbs grouping between the L1 and the FL also showed a significant correlation ( $r = .329$ ;  $p < .05$ ). These 3 correlations are positive and moderate. L1 and FL adjectives, though, do not exhibit a statistically significant correlation, which can be called weak.

### Discussion

This research was encouraged by a university teacher's uncertainty and curiosity about her students' competence and performance in terms of grammatical categories, specifically content words, both in their L1 and FL. The participant subjects were sixty Argentinian undergraduates whose native language is Spanish and study an A1 level of English at University. More often than not learners express their lack of knowledge about lexical items and their functioning in the L1. This fact caught the teacher's attention since the grammatical aspect here studied is supposed to be part of the students' prior knowledge. According to the General Council of Education of Entre Ríos Province—the location where this research was undertaken—the study of lexical categories is assigned a prominent place across primary and secondary schooling levels. Consequently, some questions emerged:

- Do undergraduates really ignore how content words in their L1 work? Or have they just forgotten how to technically explain it but still understand their functioning?
- Does grammatical knowledge about lexical categories in L1 Spanish transfer into FL English performance?
- Should EFL teachers proceed to revise basic L1 grammatical contents to facilitate FL learning?



Results demonstrate undergraduates at UCA, Facultad Teresa de Ávila have a general percentage of effectiveness in L1 content words classification of 73.16 %, which is considered as “good”. This demonstrates that students outperformed their own expectations since when put to test they could resolve the exercise with a good level of correct answers.

In spite of the fact that the mean score for the four lexical categories assessed in English, 64,79%, is below the performance in Spanish the difference is not significant as it is only 8,36%. Being the subjects assessed Spanish native speakers such a small variance manifests once again the correlation between students’ performance in both languages in terms of the grammatical aspect studied. On top of that, the correlation between same word categories in L1 and FL revealed that the better the undergraduates performed in Spanish, the better they did in English, especially in adverbs, verbs and nouns. Thus, it can be said that the ability to classify content words in one language transfers into the other. This insight bears great importance for EFL teachers, curriculum designers and educational institutions because it means that FLers’ prior knowledge about content words in their mother tongue has an impact on their interlanguage. Consequently, instruction on the matter should be planned, encouraged, implemented and assessed during school time. Likewise, when planning English courses for FLers —especially if there is a need for students to understand the type and function of lexical categories— teachers should be aware that it might be advantageous to brush up some Spanish grammar concepts to improve performance in English.

It is worth mentioning that the correlation between the ability to classify grammatical categories in both languages is positive, which means that both variables move in tandem. If one variable increases or decreases, so does the other. Therefore, it could be theorised that the improvement of the FL ability to group content words might as well improve the same ability in the L1. Pondering that the study subjects were native Spanish speakers, that they had received training in L1 lexical types across 9 years of school instruction, that by the time the test was administered (August 2018) they had not yet been taught neither adverbs nor how to identify any word class in English, and that the general average of effectiveness in L1 words classification was higher than in the FL, it is reasonable to expect that it was their L1 which positively impacted on their FL interlanguage manifestation and not the other way round. Further studies, however, should delve into the impact that FL instruction on content words may have on L1.

This research has shed light on cross-linguistic transfer concerning content words and can serve as a stepping stone to further research. Evaluating how the variables studied manifest in younger and older subjects, in subjects with higher EFL levels, and the assessment of gender performance particularities are viable follow-up courses of action.

### Conclusions

The findings reported here provide a valuable addition to the literature of language transfer regarding how L1 performance at content words classification relates to FL performance of the same ability. A cross-linguistic study of such ability is relevant because nouns, adjectives, verbs and adverbs are the most meaningful lexical types. Not only are they earlier acquired but also play a more important role (than function words) as building blocks of communication. The prominence content words are given in connected speech also supports this claim.

The results of the instrument applied offer clear evidence of the strong positive correlation between the ability to sort word class in the L1 and the FL. Accordingly, this study confirms that there is cross-linguistic influence in terms of grammatical categories classification between Spanish and English. In other words, the hypothesis that prompted this study, that “*the research participants’ level of effectiveness in the classification of grammatical categories in L1 Spanish correlates with their level of effectiveness in the classification of grammatical categories in L2 English. The better the level of effectiveness in the classification of grammatical categories in FL Spanish, the better the level of effectiveness in the classification of grammatical categories in FL English,*” was correct and supported by data.

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## APPENDIX 1

## The Instrument

Edad: ..... Sexo:..... Carrera: ..... Año: 2018

**1. Lea el siguiente texto y clasifique las palabras o grupos de palabras subrayadas en la categoría a la que corresponden.**

Había empezado a leer la novela unos días antes. La abandonó por negocios urgentes, volvió a abrirla cuando regresaba en tren a la finca; se dejaba interesar lentamente por la trama, por el dibujo de los personajes. Esa tarde, después de escribir una carta a su apoderado y discutir con el mayordomo una cuestión de aparcerías, volvió al libro en la tranquilidad del estudio que miraba hacia el parque de los robles. Arrellanado en su sillón favorito, de espaldas a la puerta que lo hubiera molestado como una irritante posibilidad de intrusiones, dejó que su mano izquierda acariciara una y otra vez el terciopelo verde y se puso a leer los últimos capítulos. Su memoria retenía sin esfuerzo los nombres y las imágenes de los protagonistas; la ilusión novelesca lo ganó casi enseguida. Gozaba del placer casi perverso de irse desgajando línea a línea de lo que lo rodeaba, y sentir a la vez que su cabeza descansaba cómodamente en el terciopelo del alto respaldo, que los cigarrillos seguían al alcance de la mano, que más allá de los ventanales danzaba el aire del atardecer bajo los robles. Palabra a palabra, absorbido por la sórdida disyuntiva de los héroes, dejándose ir hacia las imágenes que se concertaban y adquirían color y movimiento, fue testigo del último encuentro en la cabaña del monte. Primero entraba la mujer, recelosa; ahora llegaba el amante, lastimada la cara por el chicotazo de una rama.

“Continuidad de los parques”, de Julio Cortázar

Sustantivo	Adjetivo	Verbo	Adverbio

**2. Lea el siguiente texto y clasifique las palabras o grupos de palabras subrayadas en la categoría a la que corresponden**

In a forest lived a lion. He was old and couldn't run fast anymore. One of the lion's legs was hurt. As days went by it became more and more difficult for him to hunt.

One day while he was walking through the forest in search of food, he came across an interesting cave. He peeped in and smelt the air inside the cave. “Some animal must be

staying here," he said to himself. He crept inside the cave only to find it empty. "I will hide inside and wait for the animal to return," he thought.

The cave was the home of a brown jackal. Every day, the jackal would go out in search of fresh food and return to the cave in the evening to rest. That evening, the jackal after having his meal returned home. But as he came closer, he felt something wrong. Everything around him was very quiet. "Something is wrong," the jackal said to himself. "Why are all the birds and insects so silent?"

Very slowly and cautiously, he walked towards his cave. He looked around him, watching for any signs of danger. As he got closer to the mouth of the cave, all his instincts alerted him of danger. "I have to make sure that everything is alright," thought the jackal. Suddenly, he thought of a plan.

Adapted from "The foolish lion", a children's tale.

Sustantivo	Adjetivo	Verbo	Adverbio