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**Unaccusative and unergative verbs in the Spanish interlanguage of
French and English speakers**

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Thesis submitted to the School of Graduate Studies
of the
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In partial fulfillment of the requirements
for the degree of
Master of Arts: Spanish Linguistics



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*For my Mum,
my best friend*

Abstract

Esta tesis es un estudio de la morfo-sintaxis de los llamados verbos inacusativos e inergativos de la interlengua castellana de hablantes francófonos y anglófonos. La Hipótesis de la Unacusatividad (Perlmutter 1978) afirma que, en términos sintácticos, la clase de los verbos intransitivos se divide en dos sub-clases: los verbos inergativos (dormir, cantar) y los verbos inacusativos (llegar, florecer) y que esta diferencia entre inacusatividad e inergatividad se plasma universalmente en el plano semántico. Sin embargo, las lenguas se diferencian en el grado de la representación sintáctica y morfológica de esta distinción. El objeto de nuestro estudio es investigar si nuestros aprendices conocen las consecuencias sintácticas de que un verbo pertenezca a una clase semántica u a otra. Dado que los verbos intransitivos no se clasifican del mismo modo en las lenguas maternas de nuestros aprendices, es de esperar que se enfrenten de distinta forma a los verbos del castellano. De hecho, vamos a explorar la hipótesis de que las semejanzas y diferencias entre sus lenguas maternas y el castellano nos permitan prever las dificultades con que habrán de enfrentarse.

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- Appendix 1** The subject questionnaire, English version
- Appendix 2** Grammaticality judgment task
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Introduction

The goal of this M.A. thesis is to investigate the acquisition of intransitive verbs by English and French learners of Spanish. Up until now there are few studies done on the acquisition of intransitive verbs in L2 Spanish. In fact, there is no actual study that has set out to investigate if L2 learners observe a difference between the various types of intransitive verbs in Spanish. It is believed that the acquisition of intransitive verbs is an easy task and therefore should not be analyzed in a greater detail. It is our intention to show that not only the acquisition of intransitive verbs is far from simple, but also that it is an interesting topic that should be incorporated in the descriptive and pedagogical grammars of Spanish.

The fundamental insight into intransitivity began with the Unaccusative Hypothesis as first formulated by Perlmutter (1978). The hypothesis states that intransitive verbs divide into two distinct classes. One type of intransitive verbs behaves in some ways transitively rather than intransitively, closely resembling passive verbs. Passive verbs involve movement of an underlying direct object NP into surface subject position. Unaccusative verbs have been analyzed as ‘superficial’ verbs whose subject NP also undergoes movement from a post-verbal position. In contrast, unergative verbs have a pre-verbal subject as active transitive verbs do.

This type of development in linguistic theory together with subsequent precisions and modifications provides invaluable insights as to what the universal and specific properties of language are. While universal properties will already be part of any adult linguistic experience, language specific properties must be acquired. The syntactic analyses that constitute the basis of our study provide the necessary tools to determine what native competence is and what exactly a non-native speaker has to acquire to achieve native-like performance in a second language.

Chapter one provides and explains in full detail the Unaccusative Hypothesis; within Relational Grammar (Perlmutter 1978) and Government and Binding theory (Burzio 1986). In its basic form the hypothesis states, on syntactic grounds, that the class of intransitive verbs sub-divides into two sub-classes, which are universally known as the class of “unergative verbs” (*dormir, hablar, cantar, llorar*) and the class of “unaccusative verbs” (*aparecer, llegar, morir, nacer*). Following Burzio (1986) we adopt and place the Unaccusative Hypothesis within the Government-Binding framework maintaining that the

two classes of verbs are associated with two distinct syntactic configurations. Namely, unergative verbs have a deep structure subject while unaccusative verbs have a deep structure object, which moves to subject position. This chapter also deals with the so-called “Unaccusative Mismatches”: verbs showing unaccusative semantics and unergative syntax, and vice versa (Levin and Rappaport Hovav 1989; Rosen 1984; Van Valin 1990,1987). “Mismatches” have been explained following a syntactic approach and a semantic approach. Sorace (1993) argues that in many languages unaccusative verbs are cross-classified by unaccusative diagnostics, as in the case of the verb blush, which is an unergative verb in French and English while it is an unaccusative verb in Spanish and Italian (Rosen 1984).

Chapter two focuses on unaccusativity diagnostics that are known to exist in the languages mentioned above. Even though languages distinguish between unergative and unaccusative verbs universally, there is variation between languages as to whether this distribution has specific morphosyntactic realizations, and in terms of the actual classification of those verbs. For instance, Sorace (1995), using the example of auxiliary selection with French and Italian, notes that, even though both languages have the same class of unaccusative verbs, they differ in terms of the selection of the perfective auxiliaries.

The first part of chapter three consists of a review of second language literature related to the acquisition of intransitive verbs in Italian, French, English and Japanese (Hirakawa 1999, 2000; Oshita 1997; Sorace 1995, 1993; Rosen 1984; Schroten 1986; Levin and Rappaport Hovav 1989, 1986) and L1 literature (Lord 1979; Bowerman 1982;

Hochberg 1986) based on the analyses and diagnosis presented. The second part of chapter three is devoted to the hypotheses that we make for the acquisition of Spanish by native speakers of English and French.

Chapter four describes the methodology of the study that we have carried out. We specifically provide a description of the subjects and the design of the two tests intended to determine the status of a subset of unergative and unaccusative verbs in Spanish interlanguage of native speakers of French and English at the intermediate and advanced levels. One test consists of a multiple-choice task and the other of a grammaticality judgement task. In the multiple-choice task, the subjects are provided with unergative and unaccusative verbs and have to choose the appropriate answer out of three possibilities, where only one is correct. In the grammaticality judgement task, they are given specific sentences that are either grammatical or ungrammatical in Spanish. The learners have to decide which ones are grammatical and provide grammatical counterparts for the ungrammatical ones. These tests allow us to determine whether and how learners classify the chosen verbs and what syntactic diagnostics they are using, if any, to treat swim and disappear as different types of intransitive verbs. Group and individual results are presented in this chapter.

At the theoretical level, this study contributes to descriptive linguistics in that it provides a description of intransitive verbs in English, French and Spanish. For L2 acquisition theory, this study provides an analysis of the role of a first language (English and French) in the acquisition of the subtle syntactic differences that determine the unaccusative/unergative dichotomy in Spanish. At the practical level, this study provides

native and non-native data that can be used by language teachers, teacher trainers and for the preparation of teaching materials and textbooks intended to teach Spanish as a foreign or second language.

Chapter 1

Two types of intransitive verbs: The Unaccusative Hypothesis

1.0. Introduction

In this chapter we will present some ideas and generalizations as first formulated by Perlmutter and Postal (1978). We will begin by explaining the Unaccusative Hypothesis (UH) within two grammatical frameworks: Relational Grammar (RG) and Government and Binding Theory (GB); we will then explain why we adopt GB (Burzio 1986) and subsequent developments.

In the grammatical category of verbs, a basic distinction must be made between two types: transitive verbs and intransitive verbs. A transitive verb requires a grammatical object (Peter washes his car at night), whereas an intransitive verb does not require a grammatical object (Peter slept all night). However, these distinctions are a good deal more sophisticated than that. In fact, linguists have shown that within and across languages there are two different types of intransitive verbs. In our study, we will refer to these two different types of intransitive verbs as unergative verbs and unaccusative verbs (i.e., ergatives)¹.

¹ Unaccusative and ergative both refer to the sub-class of intransitive verbs that consists of internal

1.1. Two types of intransitive verbs

The UH states that subjects of intransitive verbs can behave either as subjects or objects of transitive verbs. For instance, the subject in (1a) also behaves as the subject in (1b):

- (1) a. Juan smiles a lot
 b. Juan likes syntax

On the other hand, the surface subject in (2a) behaves as the object in (2b):

- (2) a. The door closed
 b. Peter closed the door

The verb in (1a) is an unergative verb, while the verb in (2a) is unaccusative.

1.2. Relational Grammar (RG)

Before we provide a detailed account of UH within RG framework, some discussion of its theoretical constructs is necessary.

RG is based on grammatical relations (GRs), which are also known as “primitive grammatical relations”. This category is primarily made up of relations such as subject, direct object, indirect object and oblique relations (an undetermined number that comprises, for example, benefactive, locative, instrumental, etc.). These GRs are assigned a number that corresponds to a hierarchy as illustrated in (3):

- | | | | | |
|-----|---------|---------------|-----------------|----------|
| (3) | subject | direct object | indirect object | obliques |
| | 1 | 2 | 3 | |

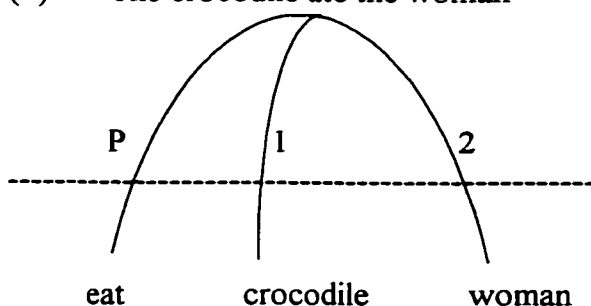
In this particular hierarchy of RG, the nuclear relations are (1, 2) and the object relations are (2, 3). When we analyze any type of clause and find any GRs, RG instructs us to use

the number that corresponds to the grammatical function, i.e., *Mary washed her cat*, where, Mary, = 1 (subject) and, her cat, = 2 (direct object).

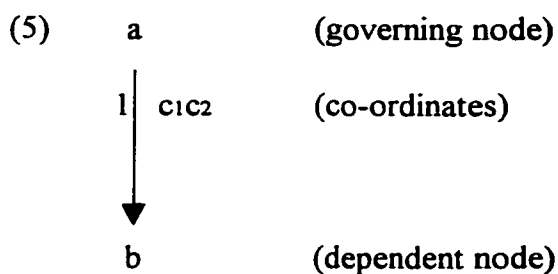
RG has its own way of representing the relational structure of grammatical relations. This is done through stratal diagrams. A stratal diagram consists of two nodes, where “a” is the governing node (or common tail) and “b” is the dependent node; the relations are represented by arcs, and the strata (levels), where the relations hold, are represented by co-ordinates, “c”. The stratum (level) is the maximal set of neighbouring arcs that share some single coordinate. The stratal diagram in (4) is in its basic form, where “P” stands for predicate, 1 (subject) and 2 (direct object). This representation shows that there is only one stratum.

(4) The crocodile ate the woman

[Blake 1990: (2a)]



Stratal diagrams with additional information as in (5), are those that originate from a relational network. In this part of the stratal diagram, “b” bears the 1 relation to “a” at strata c_1c_2 .

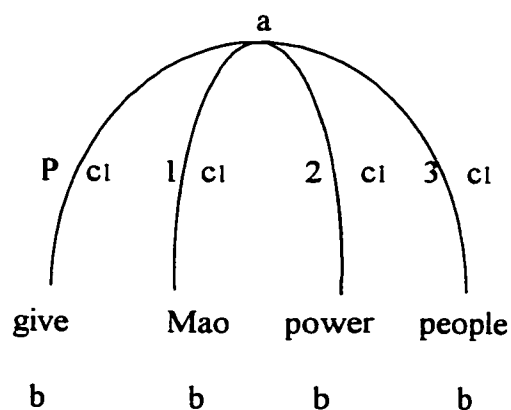


In RG terms, a relational network exists when the structure of a sentence or clause contains an object. Perlmutter and Postal (1983) define relational network as a “graph-

theoretic object” that involves three types of primitive entities: (i) primitive linguistic elements, (ii) primitive grammatical elements, and (iii) linguistic elements. In this study, we are only concerned with primitive grammatical elements. The stratal diagram in (6) has only one stratum, as indicated by the co-ordinate “c1”. The “b” nodes bear the 1, 2, 3 relations to “a”.

(6) Mao gave power to the people

[Blake 1990: (5a)]



The last piece of information that will be of most use to us to understand the UH in RG terms is two of the Relational Laws (RL), as stated in (7a) and (7b):

(7) a. Final 1 Law

There is a requirement that every final stratum contain a subject (1).

However, this does not mean that there must be a surface subject

(Perlmutter and Postal 1983: 100)

b. 1 Advancement Exclusiveness Law (1AEX)

Advancements to subjects are limited to one per clause (Perlmutter &

Postal 1983: 151)

These RLs are very straightforward and are of great importance to making RG work.

1.2.1. RG and the Unaccusative Hypothesis

As said above, traditional grammar differentiates two types of verbs: transitive verbs and intransitive verbs. In RG, the concepts of subject and direct object, which are used to define both types of verbs, are secondary to the notions of 'the head of 1-arc' or 'the head of 2-arc'. As opposed to traditional grammar, RG focuses on the idea of levels. For RG, it is most useful to discuss the strata of clauses and not the clauses themselves (Perlmutter and Postal 1983: 94).

The 1 AEX law defines the UH. In this respect, Perlmutter (1978) states that certain intransitive clauses have an initial 2 but no initial 1, which implies that there are two types of intransitive verbs. Moreover, these two types of verbs differ from each other in structure; they also differ from the class of transitive verbs in that they have their own strata characterizations:

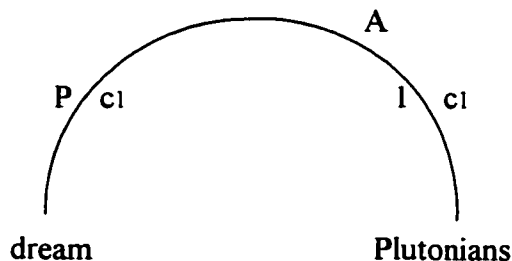
(8) A stratum is transitive if and only if it contains a 1-arc and a 2-arc

A stratum is unergative if and only if it contains a 1-arc

A stratum is unaccusative if and only if it contains a 2-arc

The diagram indicates, by means of the letter "A", that the 1-arc is not an advancee². This stratal diagram consists of an unergative verb:

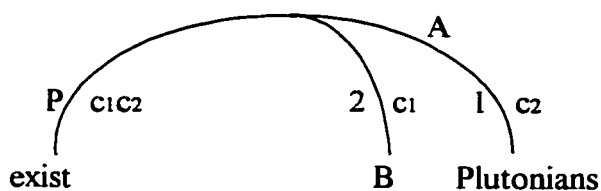
(9) Plutonians dream



² An intransitive verb that has an initial 1 does not need to advance since it already complies with the Final 1 Law. However, a predicate that has an initial 2 must advance; since otherwise it would violate the law. Thus, the element of the sentence that advances is called an "advancee" (as seen in example 10).

A clause with an unaccusative verb will normally, but not always, involve at least two strata: an initial stratum with a nominal holding the direct object relation and a second stratum in which the object has advanced to subject (1AEX) to fill the Final 1 Law, as seen in (10):

(10) Plutonians exist



In this diagram, “B” advances to “A” and “A” is an advancee 1-arc.

The UH predicts that in some languages, nominals will behave like subjects in some intransitive clauses, while in others they will behave like direct objects, as shown in (1, 2). This prediction is investigated through the Universal Alignment Hypothesis (UAH) (Perlmutter and Postal 1978).

1.2.2. The Universal Alignment Hypothesis (UAH)

RG suggests that there is a correlation between grammatical relations and semantic roles, because agents are considered to be features that control person agreement on the verb. In addition, they can be obligatorily suppressed with non-finite verbs. This led Perlmutter and Postal (1978, 1984: 97) to conclude that the correlation between grammatical relations and semantic roles is universal, which in turn allowed for the formulation of the UAH, which states that initial grammatical relations can be assigned on the basis of semantic roles. According to this formulation, an agent, experiencer, or cognizer would be an initial 1, a patient an initial 2, and a recipient an initial 3. Instruments, locations, and other similar constituents are classified simply as obliques.

The alignment of grammatical relations and semantic roles predicts that there will be intransitive verbs whose superficial subjects will behave like “actual subjects” of transitive verbs and as “actual objects” of transitive verbs, as mentioned in section 1.1.

- (11) a. Juan smiles a lot
b. Juan likes syntax

- (12) a. The door closed
b. Peter closed the door

The subject of “smile” in (11a) is a “cognizer” while the subject of “like” in (11b) is an “experiencer”; the subject of “close” in (12a) on the other hand is a “theme/patient”. The latter structure correlates to that of the direct object of a transitive verb. However, the UAH does not always make the right prediction. For instance, Rosen (1984) has tested the UAH in a number of different languages and has shown that the UAH cannot explain why the nominal functions syntactically as the superficial subject or as the direct object in the case of certain intransitive verbs.

Rosen (1984) argues that the distinction between unergative and unaccusative verbs cannot be completely determined semantically, and that the two types of intransitive verbs have a distinct syntactic configuration³.

It is not enough to translate a verb from one language to another and expect that both verbs will behave the same way. For instance, the English verb blush can either be interpreted as an activity or a change of state depending on one’s perspective. In Spanish and Italian this verb literally means ‘become red’, suggesting that in these languages the verb requires a change of state reading rather than an activity reading. Additionally, the auxiliary selection diagnostic in Italian (as shown in 13) shows that this verb favours the

³ Rosen and other proponents of the syntactic approach do not deny that there tends to be a certain correspondence between the meanings of verbs and their classification as unergative or unaccusative.

auxiliary “essere” over “avere”, which further indicates that the verb is unaccusative and not unergative:

- (13) a. Mario è arrosito
 b. *Mario ha arrosito

Recent research agrees that semantic notions such as ‘activity’ and ‘change of state’ are aspects of meaning that are relevant to the classification of verbs (Dowty 1991; Pinker 1989; Pustejovsky 1991b; Tenny 1987, 1992; Van Valin 1990; among others). Namely, there is no reason why the verbs blush and snore, which both suggest bodily processes, should belong to the same semantic class, as Perlmutter and Postal (1983) argue.

It is not possible to explain the initial strata of intransitive verbs solely through semantic roles. Syntax is just as vital for determining how a verb would be represented in terms of an RN on a stratal diagram.

It is also important to point out that there are verbs that, depending on the context of a sentence, can be either unergative or unaccusative:

- (14) a. Ugo ha corso meglio ieri (unergative verb)
 ‘Ugo ran better yesterday’
 b. Ugo è corso a casa (unaccusative verb)
 ‘Ugo ran home’

What Rosen (1984) proposes is that, in order to determine the initial stratum of any given intransitive verb, it is necessary that the predicate undergo syntactic tests in order to obtain its true classification.

1.3. Government and Binding Theory (GB)

Government and Binding theory is a natural development of earlier versions of generative grammar. Within this framework, sentences have two levels of syntactic representation – D-structure and S-structure. D-structure is defined as the structure where all the elements in the sentence appear in their original position, as seen in (15):

(15) James will see who

Furthermore, this level encodes the lexical properties of the constituents of the sentences. It represents the basic argument relations in the sentences. External arguments are base-generated in the subject position relative to their predicate; internal arguments are governed by the predicate in their base-position.

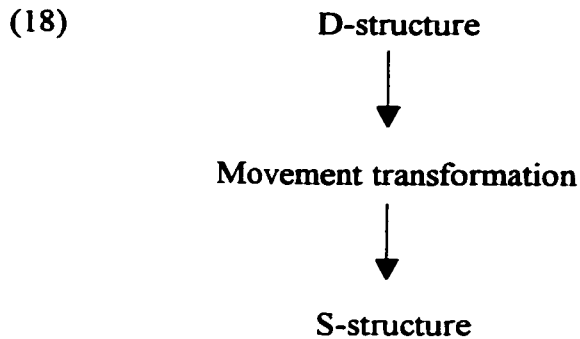
S-structure is defined as the structure where all the elements in a sentence have been moved, as seen in (16). This level reflects the more superficial properties of the sentence: the actual ordering of the elements in the surface string, and their case forms (Haegeman 1994: 304-06).

(16) Who will James see

Once the elements of a sentence move, the original locations of these elements are indicated so as to ensure that the semantic and phonological interpretation will not be misleading. These original locations are filled by “traces” (t), which mark the original places in the sentence from which elements have been moved, as illustrated in (17):

(17) Who₂ will_i James₂ see t₂

The two levels of syntactic representation are related to each other by means of movement transformations. Namely, elements that originate in some position at D-structure may be moved elsewhere at S-structure. In GB, this is schematized as follows:



The main element that defines argument structure is the predicate. This predicate consists of elements that say something about entities and/or their relationships, and express the meaning relationships between arguments. Knowing the argument structure of a predicate means knowing how many arguments are involved, as well as their nature. All this information is represented through a theta (θ) grid, as shown in (19):

(19) fry < Agent, Patient >

The theory behind argument structure is known as Theta theory. The component of the grammar that regulates the assignment of thematic roles (such as agent, patient, theme, goal, etc.) to elements in a sentence is called theta theory. “Agent” is the person who is carrying out the action. “Patient” is the object affected by the action of the agent, “theme” is the entity affected by the action or state expressed by the predicate. “Goal” is the entity towards which the activity expressed by the predicate is directed, as shown in (20):

(20) a. The ball rolled towards the pigsty [Haegeman 1994: (36c)]

theme goal

b. Constance rolled the ball towards Poirot [Haegeman 1994: (36b)]

agent theme goal

In (20a) and (20b) the theme is the ball. Of the two examples, only (20b) contains an agent.

In argument structure there are two types of selections: semantic and category.

Semantic selection restricts the kind of arguments that may accompany a predicate, as illustrated in (21):

(21) a. John killed the burglar

The predicate assigns two semantic roles: agent and patient. In (21b), the predicate does not restrict arguments nor does it add new ones. In the kitchen simply indicates the location where the action of the agent took place, and where the patient was affected:

(21) b. John killed the burglar in the kitchen

However, the verb kill will restrict any unnecessary arguments, as seen in (21c):

(21) c. *John killed the burglar the kitchen

Since all the necessary arguments have been assigned by the predicate, the noun phrase argument the kitchen cannot be added to the sentence.

Each argument bears one and only one θ -role, and each θ -role is assigned to one and only one argument (Chomsky 1981: 36). This is known as the Theta Criterion.

1.3.1. Burzio's revision of the UH

Burzio (1986) was the first to attempt to redefine the UH within GB. Within this framework, unergative and unaccusative verbs have two distinct syntactic representations. Namely, the single argument of unergative verbs is syntactically equivalent to the subject of transitive verbs (as in 22a), whereas the single argument of unaccusative verbs is syntactically equivalent to the direct object of transitive verbs (as in 22b):

(22) a. John cried from pain

b. The window closed versus Peter closed the window

From GB perspective, an unergative verb takes a D-structure subject and no object, as illustrated in (23a). Its counterpart, the unaccusative verb, takes a D-structure object

(clausal or a simple noun phrase (NP)) and no subject, as illustrated in (23b). In (23b) e shows that there is a subject position, but that it is empty:

- (23) a. [sNP] [VP V]
 b. [sNP_e] [VP V NP]

According to this proposal, the unergative verb has an external argument and no direct internal argument, as shown in (24a), while the unaccusative verb has a direct internal argument and no external argument, as shown in (24b). In (24b) t indicates that the NP has moved to the subject position in S-structure:

- (24) a. Mary cried from pain [NP [VP \emptyset]]
 b. Mary fell [\emptyset [VPNP]] \rightarrow [[NP_i [VP t_i]]]

It is the basic semantic difference between these verbs that determines their different syntactic behaviour.

1.3.2. Unergative and Unaccusative Verbs

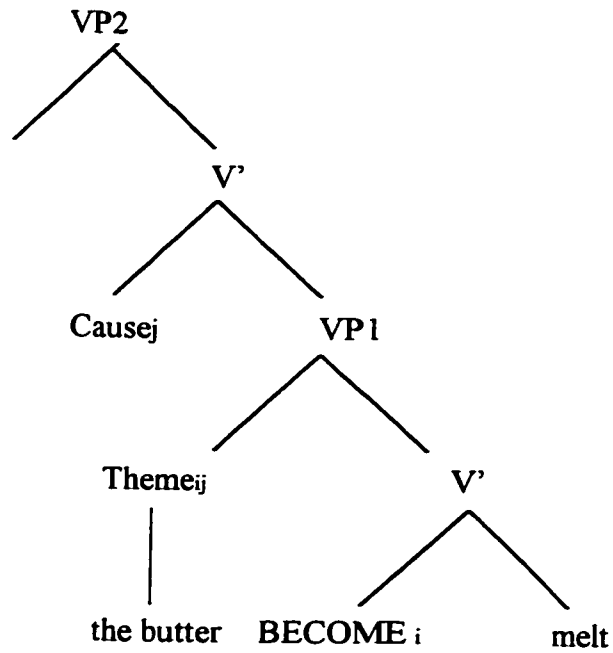
Unergative and unaccusative verbs do not form a homogeneous class with respect to their syntactic behaviour. For example, some unaccusative verbs that denote a change of state alternate in transitivity. They participate in the so-called “causative/inchoative alternation”; that is, the transitive form has a causative meaning and is lexically related to the intransitive form, as seen in (25a, b):

- (25) a. The butter melted
 b. The cook melted the butter

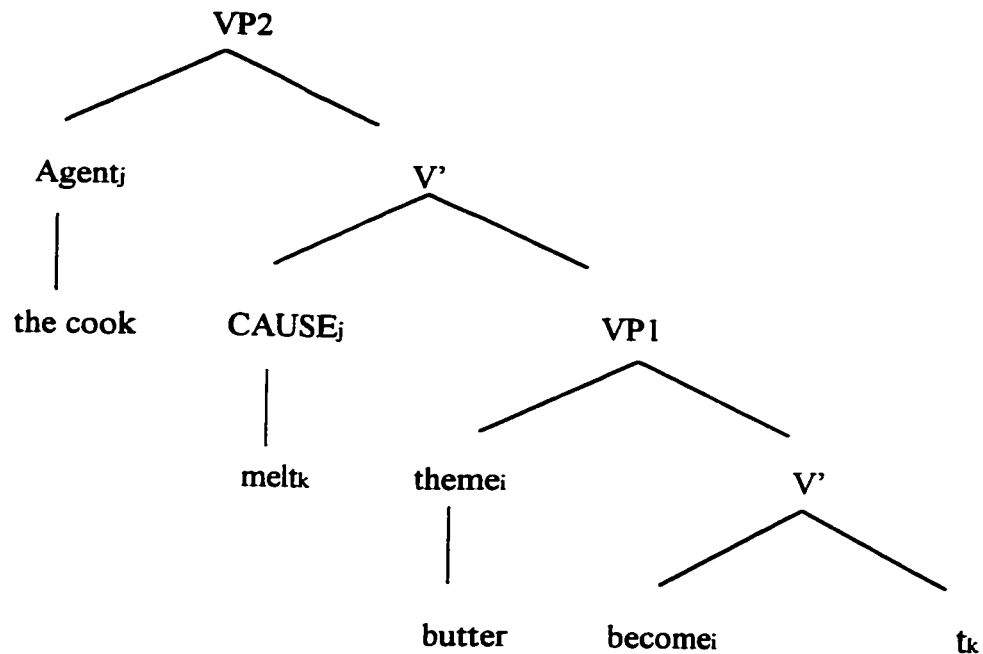
These verbs are considered accomplishments in their transitive form (Dowty; 1979). They are represented in a bi-eventive template whose upper verbal phrase (VP) is headed by “cause” and whose lower VP is headed by “become” (Levin & Rappaport; 1995). Cause, “be”, become, and “state” are primitive semantic predicates from which different verb

classes are derived, as well as thematic roles and the number and type of verbal projections that make up the event. Argument structure is derived configurationally, where agents are specifiers of the cause sub-predicate and themes occupy the specifier “become”, as illustrated in (26):

(26) a. The butter melted



b. The cook melted the butter



Due to the verb's meaning, only certain unaccusative verbs tolerate transitive counterparts, as seen in (27):

(27) b. *Aladdin appeared the genie [Montrul 1999: (3b)]

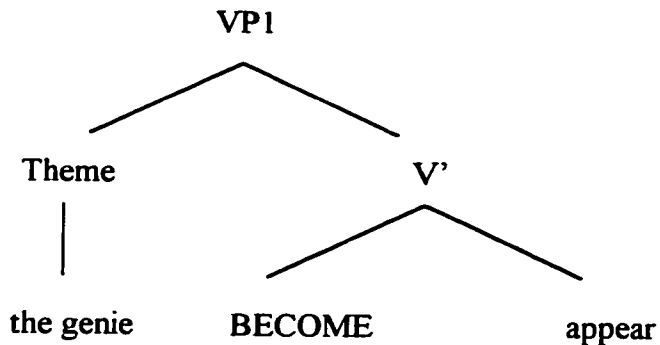
Only when cause is implicated in the lexical decomposition of the transitive form, then the causative/inchoative alternation is possible, as showed in (25).

Verbs that denote a change of state and do not participate in the causative/inchoative alternation are those that have a lexically unrelated causative counterpart (for example *die/kill*). In the literature, these verbs are known as suppletive pairs, and it is not clear if their structure should be analyzed as deriving from the same structure as the class of unaccusative verbs that do alternate in transitivity. This issue is still unresolved (McCawley 1968, 1972; Kac 1972).

The other class of unaccusatives includes verbs that neither participate in the causative/inchoative alternation nor have a lexically related causative counterpart. These

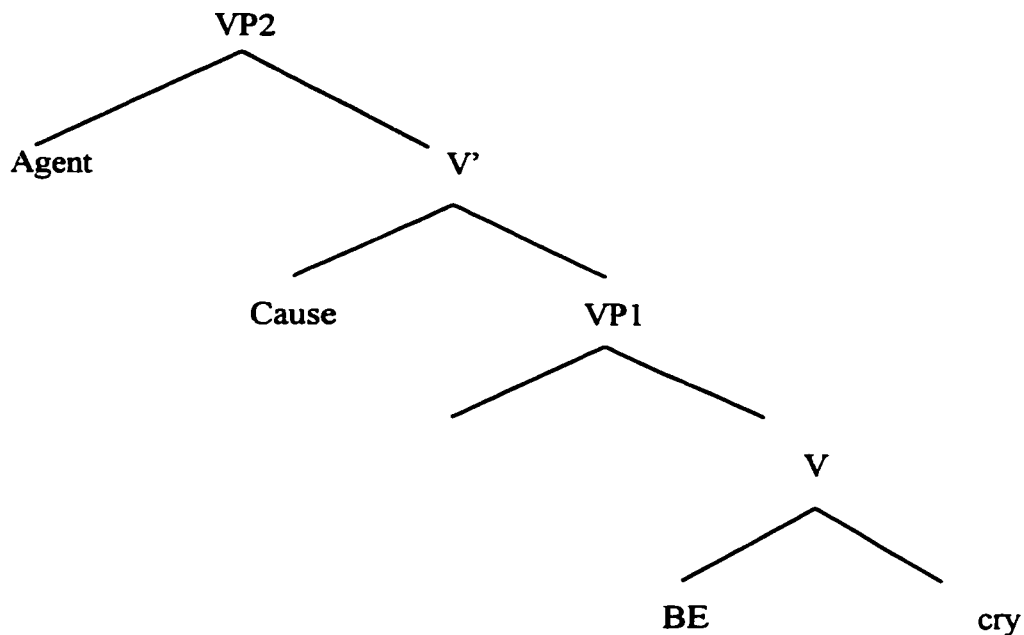
verbs belong to the semantic class of verbs of existence and appearance (for example *go*, *appear*, *exist*, *arrive*). The structure of these verbs is as follows:

(28) The genie appeared



In contrast, unergative verbs have an agent that is submitted to a certain degree of volitional control; however, that does not make all unergative verbs agentive. For this reason, the exact structure of these verbs is debatable. Nevertheless, following Hale and Keyser 1993; Travis 1994; Kratzer 1996; Baker 1997 and Marantz 1997, we support the idea that these verbs are represented in a bi-eventive template with an upper cause sub-event, since most are agentive, and agents are introduced by an upper VP. Furthermore, the lower predicate BE and its specifier are empty. The reason for this assumption is that BE is the lower predicate of unergative verbs, since it is atelic and unbounded (Travis 1991, 1994; Slabakova 1997). Therefore, the external argument is the argument of both predicates, as illustrated in (29):

(29) The child cried



Given the fact that there is a considerable amount of variability in how languages deal with the two types of intransitive verbs, one may ask how will L2 learners come to know the semantic class to which a newly acquired Spanish verb belongs. In the next section, we will describe how lexical-semantic representation and the linking rules as proposed by Levin and Rappaport (1995) can, to a certain extent, explain how L2 learners cope with the acquisition of new verbs.

1.3.3. Lexical-Semantic and Lexical-Syntactic Representations

According to Levin and Rappaport (1995), there are two types of lexical representations: the lexical semantic representation and the lexical syntactic representation. The lexical semantic representation, also referred to as the lexical conceptual structure (Hale & Keyser 1986, 1987; Jackendoff 1990), encodes the syntactically relevant aspects of verb meaning. The lexical syntactic representation, on the other hand, encodes the syntactically relevant arguments.

Levin and Rappaport (1995) argue that these representations allow for the distinction between the external argument and the internal argument, as first introduced in Williams (1987). To encode the additional properties of arguments, various typographical conventions are used. For instance, Williams (1987) uses underlining to pick out the external argument, while Levin and Rappaport (1986) use angled brackets around the internal arguments to identify the external argument:

(29) a. *see* (A, Th) [di Sciullo and Williams 1987: (29)]

b. *put* $x < y$, P-loc $z >$ [Levin and Rappaport 1986: (9)]

Grimshaw (1990) points out that in these analyses the argument structure of a predicate is a set of elements which makes it possible to recognize the asymmetry between internal arguments, which are within the scope of the predicate (Zubizarreta 1987), and external arguments, which are not. Consequently, semantic role labels do not refer to the positions in argument structures, since the argument structure is a purely syntactic representation (Zubizarreta 1987, Rappaport and B. Levin 1988, Grimshaw 1990 among others), as illustrated in (29b).

The mapping of the lexical-semantic representation onto the lexical-syntactic representation at the level of argument structure is governed by linking rules (Levin and Rappaport 1995; Sorace 1995a). These linking rules produce lexical-syntactic representations at argument structure from lexical-semantic representations at conceptual structure. Sorace (1995a) points out that within this multidimensional semantic space, languages may select distinct semantic primitives as those relevant for encoding the grammatical features of unergativity/unaccusativity. According to Jackendoff (1990: 285-286), the linking rules may be regarded as an autonomous component of linguistic knowledge, characterized by their own properties and typology, which are largely

independent of conceptual and syntactic structures. He further argues that it is not possible to regard the linking rules as the main locus of cross-linguistic variation since this would imply that there are no “unaccusative mismatches”; that is, verbs showing unaccusative semantics and unergative syntax, or vice versa.

There are four linking rules: the Immediate Cause Linking Rule; the Direct Change Linking Rule; the Existence Linking Rule; and the Default Linking Rule. The Immediate Cause Linking Rule determines which argument of a verb is its external argument. This rule applies to both internally and externally caused verbs, and to transitive and intransitive verbs. For transitive verbs, the external cause is considered an immediate cause; hence, the immediate cause linking rule states that the argument that denotes such an external cause will be an external argument. This concerns the external arguments of verbs such as transitive break, transitive hang, etc. For intransitive verbs, the linking rule states that internally caused verbs typically receive an unergative classification, since their sole argument is the immediate cause. Not all internally caused verbs are unergative; however, it is widely agreed that a large class of unergative verbs is agentive, and agentivity is subsumed under internal causation. For this reason, verbs such as cough, tremble, snore, etc. are considered to be agentive.

The Directed Change Linking Rule is greatly responsible for the linking of internal arguments. The rule states that the argument of a verb that corresponds to the entity undergoing the directed change described by that verb is its direct internal argument (Levin & Rappaport 1995: 146, (24)). According to Levin & Rappaport, the rule applies to verbs of change of state, such as break. Thus, when break is used intransitively it receives the direct internal argument instead of the external one, which is the argument it receives when used transitively. The rule also applies to verbs of motion (arrive, come, go,

rise, fall, etc.); these verbs specify a direction which may be deictic (as in the case of come) or not (as in the case of fall) (Levin and Rappaport 1995: 147).

The Existence Linking Rule states that the argument of the verb whose existence is asserted or denied is its direct internal argument (Levin and Rappaport 1995: 153). Additionally, the rule deals with the linking of the theme argument of verbs of existence and appearance (exist, appear, disappear, etc.). The Default Linking Rule states that an argument of a verb (run, roll, bounce, jog, etc.) that does not fall under the scope of any of the other linking rules is its direct internal argument (Levin & Rappaport; 1995: (49)).

Sorace (1995a) points out that the acquisition of the linking rules in an L2 gives rise to particular problems of learnability. Due to numerous cases of overgeneralization by L2 learners (Oshita, 1997; Hirakawa, 2000; Montrul, 1999; among others), it has been argued that when an L2 learner is confronted with intransitive verbs, he/she classifies them on the basis of his/her L1. As a consequence, a native-like competence in the target language will not be achieved unless these verbs undergo a syntactic test which allows the learner to determine their status as either unergative or unaccusative.

1.4. Conclusion

In summary, both the RG and GB frameworks recognize that the class of intransitive verbs is not homogenous. Languages differ in the extent to which they exhibit a regular mapping between syntax and semantics in this domain. From the perspective of the L2 learner, the more regular such a mapping, the easier it is to acquire the unergative/unaccusative distinction. Furthermore, there are language-internal differences among the syntactic properties of these verbs. Namely, some properties depend solely on the structural position of the argument of the verb, whereas others are put in systematic

correspondence with lexical-semantic features (Sorace 1995a). In Italian, for example, two of the most important manifestations of unaccusativity - ne-cliticization and auxiliary selection - have often been cited as examples of those properties which are purely syntactic versus those which are syntactic and semantic in nature (Grimshaw 1990). English has the same case of unaccusatives as Italian and French, but has few subtle syntactic reflexes on unaccusativity. On the other hand, while French has the same class of unaccusative verbs as Italian, it has a somewhat different system of auxiliary selection. In Spanish there is only one auxiliary, haber, that can appear with both types of intransitive verbs. For this reason, in chapter 2, we will focus on unaccusative diagnostics that are considered to exist in the languages mentioned above. These diagnostics permit an L2 learner to distinguish between unergatives and unaccusatives.

Chapter 2

Unaccusativity diagnostics in Spanish, English, Italian and French

2.0. Introduction

In this chapter we will first outline the diachronic evolution of the class of intransitive verbs in Spanish. We will then describe the various phenomena that provide evidence for unergativity and unaccusativity, and thus for the distinction between the intransitive verbs in modern Spanish as compared to English, Italian and French. These four languages have distinct unaccusativity diagnostics, so that one language may have numerous tests while another may have only a few. In spite of this, the unaccusativity diagnostics are at times similar, as in the case of auxiliary selection in Italian and French.

2.1. Intransitivity in Spanish: A historical overview

In the 16th century there was an auxiliary distinction within the class of intransitive verbs that depended on the semantics of the verb, which through the evolution of the language has been lost. Up until the present century, Spanish showed a distinction between the perfective auxiliaries ser/haber, as illustrated in (30):

- (30) Los moços son idos a comer y nos han dexado solos [Lapesa 1968: (256)]
 ‘The boys have gone to eat and (they) have left us alone’

In modern Italian and French, this construction would use the same auxiliaries. In Spanish, this allowed for the distinction between the two intransitive verbs, as seen in (31):

- (31) un strela es nacida son entrados el moço a trabajado
 ‘a star is born’ ‘they have entered’ ‘a boy has worked’

Over time, however, the auxiliary aver began to dominate over ser; as a result, in modern Spanish it is not possible to distinguish the two verbs through this syntactic aspect. Thus, it was only in ‘old’ Spanish that the difference between unaccusatives and unergatives was morphosyntactic, as it is now in Italian, French and to a certain degree in English. As a consequence, it will be necessary to use different diagnostics to classify intransitive verbs in modern Spanish. According to Alcina and Blecua (1975), intransitive verbs in Spanish may be classified into the following semantic categories: verbs of existence (estar, existir, morir, parecer, etc.); verbs of movement (andar, bajar, caer, caminar, ir, etc.); verbs of action (fracasar, galopar, gesticular, etc.); and pseudo-impersonal verbs (bastar, disgustar, impresionar, parecer, etc.). In the following section we provide diagnostics by which these verbs may be classified.

2.2. Unaccusativity diagnostics in Spanish

There have been various proposals related to possible diagnostics for determining whether a given intransitive verb will fall into the unaccusative or the unergative class. While these diagnostics are not always clear-cut, they provide interesting insights as to what native intuitions are in relation to the morphosyntactic characteristics of Spanish intransitive verbs.

2.2.1. Post Verbal Noun Phrases (NP)

Bever and Sanz (1997) point out that NPs can appear without an article when they are grammatical objects of verbs, but this is not possible with NPs that are grammatical subjects, as in (32):

(32) a. Los gatos comen ratones

‘The cats eat mice’

b. *Gatos comen ratones

‘Cats eat mice’

Torrego (1989), Lois (1987) and Rodríguez (1992), among others, claim that bare NPs can take part in such a construction when the position they occupy is a governed position⁴. Additional evidence shows that unergative verbs do not participate in this construction. Torrego (1989), for instance, states that post-verbal subjects of unergative verbs cannot be bare, whereas post-verbal subjects of unaccusative verbs can be. The reason for this is that the post-verbal subject of unaccusative verbs is actually in the complement position and governed by the verb, while this is not the case for unergative verbs, as shown in (33) and (34):

- (33) a. *Crecen flores* [Bever & Sanz 1997: (7a)]
 ‘Grow flowers’
- b. *Llegaron invitados a la fiesta de cumpleaños*
 ‘Arrived guests to the birthday party’
- (34) a. **Hablarían representantes mañana* [Sorace 1995: (5b)]
 ‘Would speak representatives tomorrow’
- b. **Anidan cigüeñas* [Bever & Sanz 1997: (5a)]
 ‘Nest swans’

Bever and Sanz (1997) conclude that the construction of bare NPs is only grammatical with unaccusative verbs and not with unergative verbs. The reason for this is that the subjects in (33) are actually in the object position of transitive verbs, while the subjects of unergative verbs, such as in (34), are in the subject position of transitive verbs, as in (35) and (36):

(35) [sNP_e] [VP V NP] → [sNP_e] [Crecen flores]

(36) [sNP] [VP V] → *[?] [Anidan] [cigüeñas??]

This implies that it is only the argument that is both a theme and the syntactic subject of an unaccusative verb that can appear without a determiner, since the theme argument has the syntactic properties of the object of a transitive verb.

2.2.2. Past Participial Construction: The Adverbial Clause

In Spanish, past participial constructions form adverbial clauses that are known as ‘the absolute construction’ (De Miguel 1992). In these constructions, a past participle appears with its subcategorized object where it agrees in gender and number, as in (37a, b):

- (37) a. Examinado el caso en el juzgado la magistrada pronunció la sentencia
 examined-PASTPART-MASC the case-MASC in the court, the judge pronounced the sentence
- b. Examinados los casos en el juzgado la magistrada pronunció la sentencia
 examined-PASTPART-MASCPL the case-MASCPL in the court, the judge pronounced the sentence

The sentence will be rendered ungrammatical if the subject appears with a by-phrase, as in (37c):

- (37) c. *Examinado el caso por la magistrada, pronunció la sentencia
 examined-PASTPART-MASC the case-MASC by the judge, (she) pronounced the sentence

In addition, the sentence will be ungrammatical if the agentive subject of the verb in the participle form is an argument that shows agreement, as in (37d):

- (37) d. *La magistrada examinada el caso, pronunció la sentencia

The judge examined-PASTPART-FEM the case-MASC, (she) pronounced the sentence

This illustrates the fact that subjects cannot appear in the absolute construction, and that only objects are allowed to agree in gender and number with the past participle. Bever

⁴ A governed position is defined as the object of a verb or of a preposition.

and Sanz (1997) point out that past participial constructions are not produced with unergative verbs due to the fact that unergative verbs have only one participant in their argument structure, which is the subject, as illustrated in (38):

- (38) a. *Crecidos los niños, tuvimos que comprarles ropa nueva

Grown-PASTPART-MASCPL the children, we had to buy them new clothes

- b. *Ensoydecido el abuelo, era imposible comunicarse con él

Deaft-PASTPART-MASC SG the grandfather, it was impossible to communicate with him

[RAE⁵ 1999: (50)]

According to Beletti (1990) the construction with unaccusative verbs is perfectly grammatical as seen in (39):

- (39) a. Florecido el rosál, el jardín parecía más alegre

Blossomed-PASTPART-MASC the rose tree-MASC, the garden seemed more cheerful

[RAE 1999: (51)]

- b. Llegado un estudiante de Francia, inauguró el congreso

Arrived-PASTPART-MASC a student-MASC from France, (he) opened the conference

[Bever & Sanz 1997: (10b)]

Therefore, this construction is considered to be among the unaccusativity diagnostics.

2.2.3. Past Participial Construction: The Adjectival Clause

Shroten (1986) and Bever and Sanz (1997) take as a point of departure Burzio's (1986) test with the past participial clause construction in Italian and propose that this construction is also a valid test to differentiate between unaccusative and unergative verbs in Spanish. As in Italian, the Spanish past participial adjectival clause construction is based on transitive verbs:

⁵ See Bosque and Demonte (1999)

- (40) a. La casa [construida con mucho cuidado] resistió el huracán
 ‘The house built with much care resisted the hurrican’ [Schroten 1986: (15)]
- b. Un estudiante [sobornado] suspendió el examen [Bever&Sanz 1997: (11b)]
 ‘A student bribed failed the exam’

In (40b) the NP, un estudiante, is modified by the past participle sobornado. Moreover, as Oshita (1997) points out, the NP corresponds to the internal argument of suspender, which is the base verb of the past participle. On the other hand, when an NP corresponds to the external argument of an intransitive verb, as in (41), and to the external argument of a transitive verb, as in (42), the sentences are ungrammatical:

- (41) *Un estudiante [dormido por la mañana] suspendió el examen
 ‘A student *(who) slept in the morning failed the exam’ [Bever&Sanz 1997: (13b)]
- (42) *Los chicos [construidos la casa] descansaron a las diez
 ‘The boys *(who) built the house rested a long time’ [Schroten 1986: (9b)]

This does not imply that all intransitive verbs disallow this type of construction. According to Schroten (1986) and Bever and Sanz (1997), for instance, in sentences as those in (43) the construction is grammatical:

- (43) a. Los chicos [salidos de la casa a las nueve] no han telefoneado
 ‘The boys *(who) went out of the house at 9 o’clock have not telephoned’ [Schroten 1986: (11)]
- b. Un estudiante [llegado por la mañana] suspendió el examen
 ‘A student (who) arrived this morning failed the exam’ [Bever&Sanz 1997: (14b)]

In (43b) the verb llegar is in its past participle construction and is followed by a prepositional phrase (PP), por la mañana. According to Bever and Sanz (1997), the entire participial clause modifies the NP, un estudiante. They conclude that the participial clause

in the examples above functions in the same manner as a relative clause would. They further claim that examples (40) through (43) differ with respect to their subjects. They observe that the subjects in (40) and (43) correlate with the internal arguments of the participles, while in example (41) and (42) the subjects relate to the external arguments of the respective participles, thus rendering the sentences ungrammatical. Namely, adjectival participials behave as modifiers of an NP that is the syntactic subject of an unaccusative verb; however, they cannot be modifiers of an NP that is the syntactic subject of an unergative verb. Schorten (1986) and Bever and Sanz (1997) conclude that this provides valid evidence to distinguish between the two types of intransitive verbs.

2.2.4. Present Participles: -ente/-ante

Bever and Sanz (1997) indicate that the Spanish suffix -ente/-ante functions as a nominalizer, as shown in (44):

- (44) el fabricante de muñecas
 the manufacturer-PRESPART of dolls
 ‘the manufacturer of dolls’

The noun, whether it be implicit or overt, is interpreted as the agent of the action expressed by the derived form of the verb in the present participle. The derivation is based on a transitive verb and the object is included as a PP. This construction is grammatical in the case of unergative verbs, as shown in (45):

- | | | |
|------|-------------------------|-------------------------------|
| (45) | a. el camin <u>ante</u> | b. la bella durm <u>iente</u> |
| | the walking-PRESPART | the beautiful sleep-PRESPART |
| | ‘the walking man’ | ‘the sleeping beautiful’ |
| | c. el cant <u>ante</u> | ‘sleeping beauty’ |
| | the singer-PRESPART | |
| | ‘the singer’ | |

[Bever&Sanz 1997: (20)]

However this nominalization is ungrammatical in the case of unaccusative verbs as seen in

(46):

(46) a. *el llegante
the arrive-PRESPART
'the arriving man'

b. *el apareciente
the appear-PRESPART
'the appearing man'

c. *el muriente
the die-PRESPART
'the dying man'

[Bever&Sanz 1997: (19)]

According to Oshita (1997) this phenomenon can be explained on the basis of Argument-structure (A-structure) alteration framework of morphological changes:

(47) Nominal formation with the -ente/-ante suffix

i. Referent (R)-bind the external argument. Represented by (R=x). Obligatory.

ii. Nullify the argument structure of the base verb. Represented by ({...}).

Obligatory.

Both transitive and unergative verbs have an external argument, as illustrated in (48) and (49), where “x” represents the external argument and “y”, placed in double brackets, represents the internal argument:

(48) transitive verb: (x (y))

(49) unergative verb: (x (∅))

By definition unaccusative verbs only have an internal argument, as seen in (50):

(50) unaccusative verb: (∅ (y))

The lack of an external argument in (50) breaks the first rule of the nominal formation by which the external argument must bind to the referent (R). Transitive and unergative verbs, in contrast, have an external argument that allows the process of R-bind.

2.3. Unaccusativity diagnostics in English

2.3.1. The Resultative Construction: A general overview

A resultative phrase is an XP that denotes the state achieved by the referent of the NP on which it is predicated resulting from the action denoted by the verb in the resultative construction (Haegeman, 1995), as in (51):

- (51) a. I painted the car purple
 b. I painted the car a pale shade of purple
 c. I cooked the meat to a cinder

A resultative phrase may vary in how it chooses to describe the resultative state. For instance, it may be an adjective (51a); an NP (51b); or, a PP with an object (51c). There is a restriction on the resultative construction, known as the Direct Object Restriction (DOR), which was first introduced by Simpson (1983) and which is formalized in the section that follows.

2.3.1.1. Resultative Construction based on Unergative Verbs

Three types of resultative phrases are possible with unergative verbs: (a) the resultative construction with a ‘fake reflexive object’; (b) the resultative construction with an independent non-subcategorized NP; and (c) the resultative construction with a ‘non-subcategorized inalienably possessed NP’ (Levin and Rappaport 1995).

According to DOR, a resultative phrase may be predicated on the post-verbal NP, but may not be predicated on a subject or on an oblique complement, as in (52):

- (52) a. *Polly cooked the cookies dirty

[Levin and Rappaport 1993: (370b, 368, 369b)]

The sentence is ungrammatical in (52a) because the resultative phrase is predicated on the subject, Polly.

This indicates that unergative verbs do not produce resultative constructions since, by definition, they only have one argument, which is a subject. Nevertheless, Simpson (1983) observed, among other things, that by adding a ‘fake reflexive object’, unergative verbs can and do produce the resultative construction, as seen in (53):

- (53) a. *Dora shouted hoarse
 b. Dora shouted herself hoarse [Levin and Rappaport 1995: (2,3)]

To achieve the meaning that Dora became hoarse as a result of shouting is unattainable in (53a); however, by adding the ‘fake reflexive pronoun’, as in (53b), the sentence may be read as a resultative.

Furthermore, unergative verbs cannot be followed by a ‘fake reflexive object’ with no resultative phrase, as seen in (54):

- (54) *Dora shouted herself [Levin and Rappaport 1995]

This shows that the two go hand in hand, since the resultative phrase is predicated on a fake reflexive NP that is coreferential to the subject. Simpson (1983) sees this insertion as a syntactic device that enables a resultative phrase to be interpreted as if it were predicated on the subject of an unergative verb and still obeyed the DOR.

As mentioned previously, a resultative phrase may be predicated only on the object of a transitive verb, and never on the subject. Of course, it is possible for an XP to be predicated on the subject, but then it takes on a depictive interpretation (Halliday 1967) rather than a resultative one, as shown in (55):

- (55) Julia burned the cake dirty

This sentence means that Julia was dirty when she started baking the cake, rather than that she got dirty as a result of burning the cake.

With regard to the resultative construction, Levin and Rappaport (1995) propose that the difference between unergative and transitive verbs is that the post-verbal NPs which appear with the former are not arguments of verbs, as in the following examples:

- (56) a. *I ruthlessly roused Mr. Contreras by knocking on his door until the dog barked him
 b. *You may sleep the unborn baby

Firstly, these sentences neither have a depictive nor a resultative meaning. To make the sentences grammatical, a non-subcategorized NP must be added, which is also known as the independent non-subcategorized NP (Oshita 1997). This is shown in (57):

- (57) a. I ruthlessly roused Mr. Contreras by knocking on his door until the dog barked him awake
 b. You may sleep the unborn baby quiet again

[Levin&Rappaport 1995: (6a,b)]

By providing correct non-subcategorized NPs, the reading of the sentences in (57) is grammatical and conveys the resultative interpretation.

In the third type of resultative phrase where the unergative verb follows the NP, the verb is a “non-subcategorized inalienably possessed NP” (Levin and Rappaport 1995). This generally refers to a body part; the possessor is coreferential with the subject of the verb, as in (58):

- (58) a. Sylvester cried his eyes out
 b. Philipa cried her eyes dry
 c. Sleep your wrinkles away

[Levin and Rappaport 1995: (8a,b)] and [Levin 1993: (375b)]

In these examples, the post-verbal NPs “his, her, your”, are neither reflexive nor ‘fake reflexive’ pronouns. These post-verbal NPs, which are also known in the literature as expletive pronouns (Burzio 1986), exercise a coreferential function on the subject. In fact, without these possessive determiners there is no resultative reading, as seen in (59):

- (59) a. *Sylvester cried eyes out
 b. *Sleep your wrinkles

A comparison between the examples in (58) and (59) shows that those in (58) convey the entire meaning of the sentence while those in (59) lack information. The sentences in (59) are ungrammatical because they are incomplete.

Therefore, the resultative construction is only possible with intransitive verbs that belong to the unergative class provided that there is: (a) a ‘fake reflexive pronoun’; (b) or an independent non-subcategorized NP; (c) a non-subcategorized inalienably possessed NP (expletive pronoun).

2.3.1.2. Resultative Construction based on Unaccusative Verbs

One drawback to all that has been mentioned in the literature concerning the resultative construction shows up in sentences such as those in (60):

- (60) a. The river froze solid
 b. The prisoners froze to death
 c. The bottle broke open
 d. The gate swung shut [Levin and Rappaport 1995: (19a-d)]

All four sentences contradict the DOR – which, as mentioned earlier, states that a resultative phrase may not be predicated on a subject - and yet all four examples are correct. What must be kept in mind is the special syntactic configuration that governs unaccusative verbs. This configuration demonstrates that the subject of such verbs

functions in much the same way as the object of transitive verbs. Nevertheless, unaccusative verbs do not form a homogenous class, which means that only some verbs that belong to this class participate in the resultative construction. Unaccusative verbs that take part in the construction are those that participate in the causative/inchoative alternation. Consequently, (61) is incorrect because the unaccusative verb emerge does not belong to the semantic subclass of verbs of change of state verbs:

(61) *He emerged bedraggled [Simpson 1983: (28)]

The meaning of the sentence is that he is bedraggled when he emerges, rather than being bedraggled as result of emerging. The sentence is ungrammatical because this verb is neither unergative nor it belongs to the semantic class of unaccusative verbs that alternate in transitivity.

None of the other prototypical unaccusative intransitive verbs participate in the construction, even if a ‘fake reflexive object’ is added, as in (62); or an independent NP, as in (63); or an inalienably possessed NP, as in (64):

(62) *The fish burned itself black

(63) *The fish burned the room smoky

(64) *The fish burned its tail black [Oshita 1997: (57a, 58a, 59a)]

As mentioned above, all three constructions are possible with unergative verbs, and yet none is correct with unaccusative verbs. Levin and Rappaport (1995) have found no examples of unaccusative verbs either with ‘fake reflexive pronouns’, non-subcategorized NPs, or expletive pronouns. An explanation for this is provided by Burzio’s generalization (1986), which is formalized in (65):

(65) Unaccusative verbs cannot assign Case.

Burzio notes that it is only verbs that can assign thematic roles to their external arguments that are able to assign Accusative Case. In this way, non-subcategorized NPs that are found with unergative verbs can receive Case from that verb. In contrast, unaccusative verbs have only a direct internal argument and no external argument, and for this reason cannot have this property.

A second explanation of why unaccusative verbs cannot be constructed with resultatives is illustrated in (66b):

- (66) a. Louisa slept a restful sleep
 b. *Louisa fainted a feigned faint

The main difference between (66a) and (66b) is that in the first example, the verb is unergative and is able to take any surface object, including cognate objects, while the latter cannot and does not. Put simply, the fact is that in English unaccusative verbs cannot be followed by bare NPs.

As a consequence, the ungrammaticality of (62-64) is justified insofar as the syntactic property of unaccusative verbs does not allow for the resultative construction. Following Burzio's generalization, we can see that the verbs in these examples are unable to provide a Case-assigning mechanism or a Case assigner, and thus turn out to be ungrammatical in the resultative construction.

2.3.2. X's Way Construction

Marantz (1992) proposes X's Way construction, which in fact distinguishes between the two types of intransitive verbs as a diagnostic for unaccusativity. The X's Way construction is similar to the resultative construction in that both consist of an NP that is post-verbal and does not subcategorize. It is from this NP that the X's Way construction has been named. Furthermore, the two constructions share an additional

characteristic. To render the sentences grammatical, the PP must be independent. The PP in the X's Way construction serves as a 'way' through which the subject NP moves (Jakendoff 1990) and in which the main verb denotes a sense of 'directed movement' (Levin&Rappaport 1995). What differentiates the resultative from the X's Way construction is that, in the latter, the noun that heads the NP is invariant, as seen in (67):

- (67) a. They shopped their way around New York
 b. He worked his way through the book
 c. She talked her way out of the class [Levin 1993: (356a-c)]

In addition, and unlike the resultative construction, the X's Way construction is not semantically restricted to a narrow class of verbs, since almost all unergative verbs participate in the construction:

- (68) a. We ate our way across the United States
 b. Sam joked his way into the meeting [Simpson 1990: (1c, 8a)]

The examples in (69) and (70) further illustrate the differences between unergative and unaccusative verbs with respect to the X's Way construction:

- (69) a. Bill belched his way out of the restaurant
 b. Harry moaned his way down the road
 c. Sing your way around the world [Jackendoff 1990: 211 (1)]
- (70) a. *The children came their way to the party
 b. *The flower bloomed its way to a prize
 c. *They disappeared their way off the stage [Levin 1993: (367a-c)]

According to Levin and Rappaport (1995) unergative verbs have properties that unaccusative verbs do not have, and vice versa. One such property is that unergative verbs are able to undergo meaning shift and therefore favour this construction. However,

the construction is ungrammatical with unaccusative verbs as a result of their semantic anomaly. Simpson (1983) notes that the construction is incompatible with prototypical unaccusative verbs, such as verbs of inherently directed motion (go, arrive); verbs of existence (exist); ‘appearance/disappearance’ (appear) and ‘change of state’ (bloom).

In formal terms, unaccusative verbs do not produce the X’s Way construction because - as with the resultative construction - these verbs are unable to assign Accusative Case. In English, there is a marked option to assign Accusative Case to non-subcategorized objects, which gives rise to the possibility for unergative verbs to occur with the X’s Way phrase, or with a post-verbal NP, without changing the syntactic configuration. At the same time, and as mentioned earlier however, unaccusative verbs do not have an external argument and thus do not produce this construction.

2.3.3. -er Nominals

The -er nominalization is only derived from verbs that consist of external arguments. The reason for this generalization, as according to Fabb (1984), Keyser and Roeper (1984), and Burzio (1986) among others, is that -er nominals always refer to external arguments. Because of this, they are also known, in the literature, as ‘agentive nominals’. Another property of the er nominal is that it inherits the argument structure of the base verb; furthermore, the nominal takes on any internal arguments, should any be present, as in (71):

- (71) a. load boxes on trucks
 b. a loader of boxes on trucks

Instrumental nominals can either be tools or machines, as for example with grinder or peeler. An animate entity can be considered an instrument (e.g., cleaner). Therefore, this type of nominalization can either include animate or inanimate objects, as seen in (72):

(72) peelER, slicER, grindER, gratER, shreddER...

A wide range of -er nominals produced from intransitive verbs - those that do not take a direct object - shows that these nominals correspond to the subject and not to the object of a verb base. When nominals are formed from intransitive verbs they can also refer to animate and/or inanimate entities. The grammaticality of the derived -er nominals from intransitive verbs show that not all permit derivation, as seen in (73):

(73) a. dancER, singER, jumpER, dreamER, glidER, speakER, swimmER...

b. *appearER, *diER, *endER, *enterER, *happenER, *disappearER...

The verbs in (73a) are unergative while those in (73b) are unaccusative. The single argument of an unergative verb has an underlying D-structure subject, while the single argument of an unaccusative verb has an underlying D-structure object. This in part explains why the derivation is not possible and why therefore we do not call dinosaurs, which have 'vanished' from the earth, '*vanishers'. Levin and Rappaport (1988) point out that the internal argument is present for the mere purpose of determining if the -er nominal is eventive or non-eventive. They state that it is the external argument to which the referent binds. However, this is questionable since unaccusative change of state verbs, produce -er nominals, as seen in (74):

(74) freezER, openER...

Burzio (1986) suggests that this is due to the fact that the verb base for nominals in (74) may be either transitive or intransitive. Moreover, the nominals themselves correspond to the subject of a transitive sentence. Both uses refer to instruments in their non-eventive interpretation and are, therefore, associated with the transitive verb and not the intransitive one (Levin&Rappaport 1988: 1075). Nevertheless, -er nominals are considered a valid unaccusativity diagnostic.

2.3.4. Passive and Perfective Adjectives

There is one more type of morphological evidence that permits us to differentiate between unergative and unaccusative verbs: the production of deverbal adjectives that have the same form as the past participle of the base verb (Bresnan 1982; Levin and Rappaport 1986; Levin 1993). When these adjectives are derived from transitive verbs they have a passive reading, as seen in (75):

- (75) respected leaders a furnished room typed manuscripts
 a tested method a published article written texts

On the other hand, when they are derived from intransitive verbs they receive a perfective reading, as seen in (76):

- (76) elapsed time a fallen leaf the drifted snow
 a risen Christ a stuck window
 wilted lettuce burst pipes a collapsed tent

[Bresnan 1982: 30 (47)]

However, not all intransitive verbs in this construction provide grammatical results, as seen in (77):

- (77) *a run man *cried baby *exercised athlete
 *flown pilots *yawned students *laughed audience

[Levin and Rappaport 1986: 654 (102)]

The main difference between the participles in (76) and (77), is that in (76) the verbs are unaccusative and have a single internal argument, while in (77) the verbs are unergative and have a single external argument. When the passive morpheme is added to an unergative verb, the sole thematic role associated with the verb is unavailable for assignment. The morpheme prevents the unergative verb's external thematic role from

being assigned externally. Therefore, by converting the passive participle into a deverbal adjective, it becomes impossible for it to satisfy the requirement of assigning an external thematic role. In contrast, an unaccusative verb allows the affixation of the passive morpheme; at the same time, it does not affect the verb's internal thematic role (Levin and Rappaport 1986: 654).⁶

2.4. Unaccusativity diagnostics in Italian

In the following sections we will explain some of the unaccusativity diagnostics that are used in Italian to classify the intransitive class. Some will be similar to the ones we have seen in Spanish and English while others will differ, since some of the tests rely on exclusive properties of the language; that is ne-cliticization.

2.4.1. Past Participial Adverbial Clause

In Italian, it is possible to distinguish the two types of intransitive verbs through the construction of the past participial adverbial clause, also called participial absolutes.

In (78), Paolo corresponds to the internal argument of the past participial arrestato, which allows the following construction:

⁶ This can also be explained through A-structure.

Oshita's (1997) hypothesis:

Passive and Perfective Adjective Formation

- i. R-bind the internal argument (R=y) and this is obligatory
- ii. Delete the external argument (x=0), obligatory only if x exists

Let us now apply it respectively to the unaccusative and unergative verbs:

- (a) unaccusative verb: (ø (y)) Adj. (-en/-ed): R=y (ø (y))
 (b) unergative verb: (x (ø)) Adj. (-en/-ed): *R=ø (x=0 (ø))

As explained above, the unergative verb does not allow for the construction of deverbal adjectives since it lacks the internal argument, and the external argument cannot R-bind as required. The result is an ungrammatical adjective.

(78) Arrestato dalla polizia, Paolo ha subito un lungo interrogatorio

‘Arrested by the police, Paolo went through a long interrogation’

[Sorace 1993b: (5a)]

In (79) Gianni corresponds to the external argument of the past participle lavorato, and this renders the sentence ungrammatical. On the other hand, in (80), il bambino corresponds to the internal argument of the past participle caduto and the sentence is grammatical:

(79) *Lavorato per trent’anni, Gianni andó in pensione

‘Having worked for thirty years, Gianni retired’

(80) Caduto del seggiolone, il bambino se è messo a urlare

‘Fallen from the high chair, the child started to yell’ [Sorace 1993b: (5c,b)]

These examples show that Italian unaccusative verbs function in the same way as transitive verbs - as seen in (78) - with respect to the absolute construction.

2.4.2. Past Participial Adjective Clause

Burzio (1986) points out that the past participial adjective clause construction constitutes a valid test that differentiates unaccusatives from unergatives, as in (81-82):

(81) Un ragazzo [arrivato poco fa] consce a Maria

‘A guy [who has just arrived] knows Maria’

(82) *Un ragazzo [telefonato a Maria] non può venire alla festa

‘A guy [who has called Maria] cannot come to the party’ [Burzio 1986: (40b,c)]

According to Burzio, the difference between these verbs is based on the morphology of the past participle formation in Italian and on some universal syntactic principles. He points out that the past participial phrases in (81-82) are small clauses that function as relative clauses, and have the following S-structure representations:

(83) [un ragazzo [sc PRO_i arrivato ti poco fa] consce a Maria

(84) *[un ragazzo [sc [e] telefonato a Maria] non puo venire alla festa

[Burzio 1986: (40b,c)]

As illustrated by the traces and coindexations, the sentence in (83) is assumed to contain PRO, which is base generated in post-participial object position and later moves to the pre-participial position. In addition, PRO has to originate in object position because this is where the theta roles are assigned to internal arguments. It then moves to the pre-participial position as required by the PRO theorem, since it must remain ungoverned (Haegeman 1994: 272-275, 285). Thus, the moved PRO receives its reference from the preceding NP in a control relation, which allows for the interpretation of example (83) as identical to that of a regular relative clause construction.

The distinction between the two examples is based on the morphology of the past participle. The reason for the ungrammaticality of (84) is that the theta role, which normally is assigned to the external argument, is 'absorbed' (Jaeggli, 1986b) or 'suppressed' (Grimshaw, 1990).⁷

⁷ This can be explained through A-structure. Oshita (1997) proposes the following hypothesis for the Italian past participial phrase formation with the suffix -to:

(a) Past Participial Phrase Formation with the suffix -to
 i. suppress the external argument, which will be represented as $x=\%$. This is obligatory if there is an external argument

The structure with an unaccusative verb:

(b) unaccusative verb: $(\theta (y)) \rightarrow$ Past Participial Phrase (-to): $(\theta (y))$

The construction cannot be applied to an unaccusative verb since as the rule states in (a), there must be an external argument, whereas in the case of unaccusative verbs this does not exist. It has no effect on the argument structure of the verb. The internal argument of the unaccusative verb is projected in the same way as it is for transitive verbs. Consequently, the past participial adjective clause is grammatical with unaccusative verbs.

The structure with an unergative verb:

(c) unergative verb: $(x (\theta)) \rightarrow$ Past Participial Phrase (-to): $(x=\% (\theta))$

In this case, the external argument is suppressed, as necessary and rule (a) is not violated; however, there is no internal argument to be projected as there was in the structure for (b). This is the reason for the assumption that there is no PRO either in the subject or object positions of the past participle in example (83).

2.4.3. Auxiliary Selection: essere versus avere

The choice of perfective auxiliary distinguishes which verbs will be unergative and which will be unaccusative in Italian. Thus, different rules are constructed for the two auxiliaries, as seen in (85):

(85) a. Gianni ha telefonato

Gianni has-3SG telephoned

b. Giovanna è arrivata

Giovanna is-3SG came (SG/FEM)

[Haegeman 1994: (68a)]

In (85b) the unaccusative verb arrivare contrasts with the unergative verb telefonare in that in the former, the past participle agrees in gender and number with its surface subject, while in the case of the latter it does not. In addition, where essere is selected a chain exists between the subject position and the complement position of the verb, as illustrated in (86b); in avere selection, however, no movement is assumed (86a).

(86) a. [IP Gianni [I' ha [VP telefonato]]]

b. [IP Giovannai [I' e [VP arrivata ti]]]

In (86b), the NP has moved to subject position and has left a coindexed trace, indicating that there is a chain between the moved NP and the vacated position.

The movement is better explained by considering the passive construction in (87):

(87) a. Molti studenti furono arrivati

Many students were-3PL arrived (PL/MASC)

b. Furono arrivati molti studenti

Many students were arrived

In (87a), the sentence has the same pattern as the one in (85b) with regard to the choice of auxiliary selection and in terms of agreement of the past participle with its surface subject. Moreover, in a passive sentence the surface subject is generated in the object position at D-structure, suggesting that the differentiation does not lie merely at the lexical and/or semantic level, but is also represented at the syntactic level. In addition, the versatility in terms of where the surface subject appears in (87b), as Burzio (1986) points out, indicates that in Italian essere will be selected over avere when there is a chain between the subject position and the object position of the verb. When an internal argument remains in object position and acquires Nominative case, it agrees with the verb.

When the auxiliary avere is selected, the subject and the object positions do not form a movement:

(88) a. Maria ha lavorato

Mary has worked

b. *Lavorata Maria tutto il giorno

Worked Mary all day long

There is no chain because the Theta Criterion (Haegeman 1994: 54) would be violated, thus rendering the sentences ungrammatical. The subjects do not move from object position because unergative verbs have neither an object position nor internal arguments. Since there is no such position, the verb cannot assign a theta role to a non-existing internal argument. Therefore, the selection of perfective auxiliaries shows that unaccusative and unergative verbs are distinct from each other.

2.4.4. Passive and Perfective Nominals

The formation of passive and perfective nominals - an aspect of derivational morphology - allows the distinction within the class of intransitive verbs. The examples in

(89), provided by Burzio (1986), illustrate that nominals are formed from the past participle of the base of transitive verbs and have a passive reading:

- (89) l'arrestato 'the arrested one'
 i reclusi 'the confined ones'

However, when these nominals are derived from intransitive verbs belonging to the unergative class, the end result is ungrammatical, as in (90):

- (90) *i telefonati 'those who telephoned'
 *i camminati 'those who walked'

The examples in (91), on the other hand, are grammatical, since the derivation is based on unaccusative verbs:

- (91) i caduti 'the fallen ones' l'ultimo venuto 'the last comer'
 i nati 'the born ones' l'ultimo arrivato 'the last arriver'

As with the transitive verbs in (89), the reading here is perfective and not passive.

2.4.5. Ne-cliticization

Haegeman (1994) states that a noun head of an NP can become attached to a higher verb as ne, leaving its specifier behind, as seen in (92b). In sentences such as those in (92) and (93), ne is a clitic and is defined as a pronominal element which must be associated with a head. When this occurs, we obtain ne-cliticization. The construction is grammatical in (92b), because ne is extracted from a post-verbal NP; whereas, the construction in (93b) is ungrammatical because the extraction of ne is from a PP:

- (92) a. Giacomo ha insultato a due studenti
 b. Giacomo ne ha insultati due [Haegeman 1994: (49a, b)]
 'Giacomo insulted two students'

- (93) a. Giacomo ha parlato a due studenti
 b. *Giacomo ne ha parlato a due [Haegeman 1994: (50a, b)]
 ‘Giacomo spoke to two students’

There are further restrictions on the construction, as seen in the following

examples:

- (94) a. Giacomo passa tre settimane a Milano
 b. Giacomo ne passa tre a Milano
 ‘Giacomo spends three weeks in Milan’
- (95) a. Giacomo resta tre settimane a Milano
 b. *Giacomo ne resta tre a Milano [Haegeman: 1994 (51a, b; 52a, b)]
 ‘Giacomo stays three weeks in Milan’

Ne-cliticization from the NP tre settimane is correct in (94b), but incorrect in (95b). The reason is that tre settimane is a complement of the verb passa but is not a complement of resta.

In these examples, both verbs share the same surface subject, molti esperti, as shown in (96) and (97):

- (96) Molti esperti telefoneranno
 ‘Many experts will telephone’
- (97) Molti esperti arriveranno [Burzio 1986: (4ia, iia)]
 ‘Many experts will arrive’

In addition, both allow free inversion:

- (98) Telefoneranno molti esperti
- (99) Arriveranno molti esperti [Burzio 1986: (4ib, iib)]

In examples (98) and (99) the surface subject is in a post-verbal position; for this reason, it is not enough to conclude that the two intransitive verbs are different syntactically. Though the canonical word order is SVO, (98) and (99) do not create any complications in the meaning of the sentences. Burzio (1986) states that there is no confusion in understanding what the sentences communicate as long as the discourse of the context is suitable virtually.

Nevertheless, the distinction between these verbs is apparent when the clitic is added:

(100) a. *Ne telefoneranno molti

b. Ne arriveranno molti

[Burzio 1986: (30a-b)]

The insertion of the clitic is only grammatical in the sentence with the verb arrivare. The post-verbal surface subject in (98) cannot be cliticized, as is shown by the ungrammaticality of (100a). The rule that governs ne-cliticization is that the construction will take place only when the NP is a direct object.

In summary, the surface subject in Italian may occur pre-verbally and post-verbally for either unaccusative or unergative verbs. Once the verbs in (98-99) undergo ne-cliticization, it becomes obvious that even though the surface subject is the same there are marked differences. This indicates that the surface subject of an unergative verb does not function in the same way as the surface subject of an unaccusative verb.

2.5. Unaccusativity diagnostics in French

Legendre (1987) and Ruwet (1988) show that there is a restriction concerning the classification of unaccusative and unergative verbs in French. The restriction states that an intransitive predicate *p* is unaccusative if and only if *p* passes at least one unaccusativity

test. An intransitive verb w is unergative if and only if it fails all unaccusativity tests (Legendre 1989). Some of the diagnostics are as follows:

2.5.1. Croire union

Using Relational Grammar, Legendre uses croire union to distinguish between the two subclasses of intransitive verbs. According to the author, the restriction on croire union in (101) accounts for the correct formation of the construction:

(101) Condition on croire union

Only a nominal heading a 2-arc, at some level in the embedded clause, can appear in croire construction [Legendre 1989: (35)]

Croire union – along with verbs such as *juger* (judge), *supposer* (imagine), *considérer* (consider), *trouver* (find), etc. – classifies as a raising verb. Fauconnier (1983) points out another property for this verb, calling croire with a participial a union verb, since dative clitics and *y* appear to the left of croire, rather than to the right, as seen in (102) and (103):

(102) a. On lui croyait Brutus fidele

b. *On croyait Brutus lui fidele

‘We believed Brutus (to be) faithful to him’

(103) a. On *y* croyait Henri conduit par le désespoir

b. *On croyait Henri *y* conduit par le désespoir

‘We believed Henry (to be) driven to it by despair’ [Fauconnier 1983: (28)]

The verbs, in (102) and (103), have a 2-arc and no 1-arc; this is because they are unaccusative verbs. When an intransitive verb selects être as perfective auxiliary, as is the case with partir, venir or mourir, it allows for the participial complements of croire unions,⁸ as shown in (104):

(104) a. On croyait Pierre parti

⁸ The verb aller/go appears to be the only intransitive selecting the perfect auxiliary être, which cannot

'We believed Peter to be / to have gone'

b. On croyait le moment venu

'We believed the moment to have come'

c. On croyait son père mort d'une crise cardiaque

'We believed his father to have died of a heart attack' [Legendre 1989: (41a-c)]

This construction is possible because the nominal that immediately follows croire behaves uniformly like a final 2. Furthermore, this nominal can appear as the accusative clitic (le, la, les) preceding the verb, as shown in (105):

(105) a. On le croyait parti

b. On le croyait venu

c. On le croyait mort

This construction, in addition, shows that the accusative clitic bears the final 2 relation in the union clause. The grammaticality of examples (104-105) indicates that the complement verb takes a 2 at some level. The fact that these verbs are not transitive provides further evidence that they are initially unaccusative.

The second sub-class of intransitive verbs, the unergative verbs, only have a 1 arc and no 2-arc. Following the condition on the croire union construction, as stated in (101), unergative verbs are automatically disqualified. Thus, as shown in (106), they do not appear with the participial complements:

(106) a. *On croyait le président agi

'We believed the president (to have) acted'

b. *On croyait le vieux roi regné toute sa vie

'We believed the old king (to have) reigned all his life'

The same occurs in the case of the construction with accusative clitics, as in (107):

(107) a. * On le croyait agi

b. *On le croyait regné toute sa vie

[Legendre 1989: (46a,c)]

The constraint in (101) states that intransitive verbs that participate in the construction are those that consist of a 2-arc. The ungrammaticality of these examples indicates that none of these verbs consist of a 2-arc. In RG terms, these verbs only have a 1-arc.

In conclusion, croire unions obey a constraint, which provides a valid test for the Unaccusative Hypothesis in French.

2.5.2. Participial Equi (PE) and Participial Absolute (PA)

Perlmutter (1989) and Rosen (1987) argue that participial absolutes allow for the distinction between unergative and unaccusative verbs in Italian, as explained in section 2.4.1. Legendre (1989) extends this generalization to French by proposing a constraint (108) on the well formedness of the two constructions:

(108) Condition on PE and PA

A participial clause is well formed only if there is 2-1 advancement in the clause.

Namely, the argument of the verb must head a 2-arc and advance to 1 by passive or unaccusative advancement in the participial clause. According to Legendre (1989), the PE construction involves a coreference between the subject of the dependent clause and the nominal in the main clause. The PA construction has no coreferential link between the dependent or main clause. However, both structures obey the constraint in (108). In the case of PE clauses, Legendre (1989) states that the stratum must contain a 2; otherwise, the construction will be ungrammatical. Since unaccusative verbs successfully passed the croire union test, they will also work with the PE construction, as illustrated in (109):

(109) a. Restée seule a la maison, Marie se mit a pleurer

‘(Having) stayed at home alone, Mary started to cry’

b. Tombé de sa chaise, le bébé se mit a hurler

‘(Having) fallen off his high chair, the baby started to scream’

[Legendre 1989: (57c-d)]

The nominal in the PE clause in (109a) is controlled by the matrix 1, Marie, and heads an initial 2-arc. Marie heads arcs in two clauses: it heads an initial/final 2-arc in the main clause and an initial/final 1-arc in the adjunct participial clause. In RG terms, it is assumed that the final 1-arc headed by the Equi victim⁹ in the adjunct participial clause is erased (Johnson and Postal 1980), which accounts for the fact that the Equi victim has no surface realization in the Equi construction. In other words, the Equi victim in the embedded clause heads a final 1-arc but no surface 1-arc.

Since unergative verbs failed the croire union diagnostic, they should also fail the PE clause diagnosis, and this is in fact the case in (110):

(110) a. *Travaillé toute la matinée, il dormit tout l’après-midi

‘(Having) worked all morning long, he slept all afternoon long’

b. *Médité tout la nuit, Pierre avait pris une résolution

‘(Having) meditated all night, Peter had made up his mind’

c. *Dansé pendant des heures, Marie était épuisée

‘(Having) danced for hours, Mary was exhausted’ [Legendre 1989: (61b, e, h)]

These intransitive verbs cannot take part in the construction because, by definition, they only have a 1-arc and therefore the surface subjects do not advance from 2-1.

2.5.2.1. PA clauses

According to Legendre, (1989) there is also a restriction on PA clauses that states that these clauses must contain a 2-1 advancement. She further adds that intransitive verbs that select the auxiliary être can take part in the construction, as seen in (111):

⁹The invisible nominal which is controlled by a matrix nominal (Legendre 1989: 122)

- (111) a. Les Dupont partis, toute la famille se mit a table
 'The Duponts gone, the whole family sat down for dinner'
 b. Le père mort, ils vous retournent le champ (La Fontaine)
 'Their father dead, they turned over the field'

This indeed supports the generalization that PA clauses must contain a 2-1 advancement, since all the verbs in (111) are unaccusatives and by definition they are 2-1 advances.

Unergative verbs, on the other hand, do not allow PA clauses, as in (112):

- (112) a. *Pierre réfléchi longuement, la solution paraissait évidente
 'Peter (having) thought it over for a long time, the solution seemed obvious'
 b. *Le candidat parlé, l'audience se tut
 'The candidate (having) spoken, the audience turned quiet'
 c. *Une fois les parents réagis, l'enfant cessa de rouspéter a table
 'Once the parents reacted, the child stopped grumbling at the table'

[Legendre 1989: (87a,c, f)]

Verbs in (112) are perfective and therefore should be grammatical in this construction, since they do not violate the aspectual restriction, which is the adverbial phrase *une fois/once*. Nevertheless, under the Unaccusative Hypothesis, the ungrammaticality of these examples stems from the fact that these are unergative verbs and violate the PA condition.

2.5.3. Auxiliary Selection: être versus avoir

One sub-class of French intransitive verbs includes those that select the perfective auxiliary être, while a second sub-class includes those that, along with transitive verbs, select the perfective auxiliary avoir. French grammar states that when an intransitive verb selects the auxiliary être, it is an unaccusative verb. However, this is contradictory, since there are intransitive verbs that select the auxiliary avoir and are classified by native speakers as unaccusative verbs (Sorace 1995a). Normally verbs that select the avoir

auxiliary are unergative and/or transitive verbs. Nevertheless, it is only in Italian that verbs that select the essere auxiliary are always unaccusatives, while those that choose the avere auxiliary are transitive and unergative verbs.

On the other hand, Ruwet (1988) claims that the selection between the two auxiliaries is a sufficient test to categorize the class of intransitive verbs as either unaccusative or unergative, as seen in (113):

- (113) a. J'ai lavé le chat (transitive verb)
 'I washed the cat'
 b. Pierre a travaillé toute la nuit (unergative verb)
 'Peter worked all night long'
 c. La neige a fondu rapidement (unaccusative verb)
 'The snow melted quickly'
 d. L'enfant est tombé de sa chaise (unaccusative verb)
 'The child fell from his chair'

In our study, we have included this unaccusativity diagnostic, even though it is somewhat controversial, to see if French learners of Spanish will use intransitive verbs with ser, classifying the verb as an auxiliary.

2.6. Conclusion

In order to determine whether a verb is unaccusative or unergative it is necessary to test that verb using unaccusativity diagnostics, which, as we have seen, differ according to the language. It is not possible to classify an intransitive verb as either unaccusative or unergative by looking solely at the semantics or syntax, since this will fail to correctly identify an intransitive verb (Rosen 1986). Therefore, we have presented several valid unaccusativity diagnostics that permit the distinction. We assume that native speakers of the languages considered above are sensitive to the properties tested by these diagnostics

and can therefore select unaccusative and unergative predicates from the class of intransitive verbs. It is essential to remember that the languages we focus on in this study do not always classify the same verb as either unaccusative or unergative. This leads us to the next chapter, where we will review previous research on this topic to see what guides L2 learners of Spanish and other languages in deciding whether an intransitive verb will be unaccusative or unergative.

Chapter 3

L1/L2 acquisition of the unaccusative/unergative distinction

3.0. L2 acquisition of the unaccusative/unergative distinction: the state of the art

The unaccusative-unergative distinction exists universally. However, languages vary in the way that they represent the distinction with respect to the degree of syntactic and morphosyntactic differentiations. As a result, the acquisition of the feature¹⁰ has raised serious learnability problems both for L1 and L2 acquisition. A different kind of learnability problem arises in L2 acquisition as a consequence of the fact that L2 learners already have grammatical knowledge instantiated by their L1. Data from previous studies (Sorace 1993a, 1993b; Montrul 1999; Hirakawa 1995, 2000; Oshita 1997, 1999), which concentrate on this particular aspect of second language acquisition, indicate that this problem occurs because the unaccusative-unergative distinction lies at the syntax-semantics interface for the mapping of conceptual structure (a formal representation of the meaning of lexical items, including the thematic roles of a verb) onto syntactic structure (which encodes grammatical relationships). Consequently, crosslinguistic approaches that are purely syntactic and/or semantic in nature fail to distinguish unergative verbs from unaccusative verbs; as a result, the class of intransitive verbs is cross-classified by unaccusative diagnostics (see chapter 2), as exemplified in the case of the verb blush, (which belongs to the semantic class of intransitive verbs that denote bodily functions).

¹⁰ 'Feature' is used with reference to particular verbs being tagged with unaccusativity as a verb feature.

This verb is unergative in French and English, but unaccusative in Spanish and Italian (Rosen, 1984).

Research conducted on unaccusativity in English by Levin and Rappaport Hovav (1995) has led the research to conclude that unaccusativity is semantically determined but syntactically represented. This suggests that L2 learners of a target language have to become aware of the specific aspects of verb meaning that impinge upon this classification. These aspects are not always apparent from the input and, furthermore, the learning process becomes complicated when L2 learners have to acquire linking rules (see section 1.3.3.) for unaccusativity, which is of a narrower scope than that which is activated in the L1. For this reason, L2 learners may have to reconsider the syntactic status of verbs.

The relevant question, then, is how, crosslinguistically and in the absence of obvious syntactic and morphosyntactic proof, L2 learners come to know the semantic class to which a newly acquired verb belongs.

3.1. L1-related studies

Unaccusative verbs do not form a homogenous class with respect to their syntactic behaviour. In particular, unaccusatives that denote a change of state (derretir/melt; hundir/sink) alternate in transitivity. According to Levin and Rappaport Hovav (1995) these verbs participate in the causative/inchoative alternation because they have an inherent “CAUSE” meaning in the lexical-semantic representation of transitive forms, as discussed in section 1.3.2. Therefore, individuals learning their L1 (or L2) must figure out the semantic constraints on the alternation. It has been reported that L1 acquirers make causative errors with unaccusative and unergative verbs (Lord, 1979; Bowerman, 1982) and judge them as correct in experimental tests (Hochberg, 1986).

Causative errors occur when intransitive verbs that do not take part in the causative inchoative alternation are incorrectly used in transitive contexts with a causative meaning (*I'm going the ball into the box; *He disappeared himself; *He's gonna die you, David). Eventually, native speakers stop producing causative errors with unaccusative and unergative verbs (Lord, 1979; Bowerman, 1982).

3.2. L2-related studies

Montrul (1999) assumes that UG - the system of all the principles that are common to all human languages - constrains the acquisition of lexical semantics and morphosyntax in L2 acquisition. Within the generative framework, it is believed that UG guides children in their language acquisition process. The same idea is being adopted for L2 acquisition, though evidence shows that L2 learners do not achieve the same end state as native speakers (White, 1998). Sorace (1993) attributes this to the fact that there are few studies that investigate the ultimate attainment of L2 learners, and that most are concerned with the L2 acquisition at the intermediate and advanced levels. Nevertheless, there is evidence that shows (Sorace, 1993; Birdsong, 1991; Coppetiers, 1987) that ultimate attainment differs depending on the aspect of grammar that is acquired; nonetheless, she says that L2 learners of a target language can reach native-like competence.

3.2.1. Montrul (1999)

Montrul (1999) investigated the acquisition of unaccusative verbs in Spanish interlanguage to find out whether L2 learners would differentiate, semantically and syntactically, between different subclasses of unaccusative verbs, such as alternating

(romper/romperse) and non-alternating verbs (desaparecer), as well as unergative (llorar) and transitive verbs (pintar).

The experiment examined 31 English intermediate learners of Spanish, where 15 were considered as intermediate and 16 as high intermediate. There were 19 Turkish intermediate learners of Spanish. The Turkish speakers were tested in Istanbul and were enrolled in an intermediate Spanish class at Istanbul Technical University. The English speaking learners were tested in Canada and the US, and these learners were also enrolled in intermediate Spanish classes. The main task was a picture judgement task, which tested the L2 learners' knowledge of transitivity possibilities with alternating, unaccusative, unergative and transitive non-alternating verbs. This task also tested the knowledge of se with different classes of intransitive verbs. The learners judged a total of 83 pictures assembled in a booklet in random order.

In Spanish, as in other languages, the class of unaccusative verbs participate in a construction known as the causative/inchoative alternation, where the transitive form has a causative meaning and is lexically related to the intransitive form, as illustrated in (114):

(114) a. El cocinero derritió la manteca¹¹
 'The cook melted the butter'

b. La manteca se derritió / Se derritió la manteca
 'The butter melted'

In Spanish, verbs that take part in this construction denote a change of state and subcategorize for an agent and a theme in their transitive form, as in (114a). When the form is intransitive, there is no agent and the theme is the surface subject, as in (114b). In addition, the intransitive form is characterized by the presence of an obligatory reflexive

¹¹ Many native speakers would reject this sentence and would only accept one with hacer (a causative construction).

morpheme se, as indicated in (114b). However, languages differ in the selection of intransitive verbs that participate in this construction and in the morphological representation.

As in Spanish, English unaccusative non-alternating, unergative and transitive non-alternating verbs do not alternate in transitivity, as seen in (115-117):

- (115) a. The parrot escaped through the window
 b. *The lady escaped the parrot through the window

- (116) a. The child cried
 b. *The dentist cried the child

- (117) a. The artist painted the picture
 b. *The picture painted

[Montrul: 1999 (22-24)]

English differs from Spanish with respect to the morphological realization of the causative/inchoative alternation of change of state verbs and with regard to the domain of application of the alternation. Further evidence shows that in English, transitivity applies to change of state verbs (break, sink), some verbs of motion (roll, bounce) and verbs of sound of emission (ring, buzz). The transitive and intransitive form is zero-related and has no overt derivational morphology (Montrul 1999). In Turkish, the two forms have overt morphology that distinguishes between the transitive and the intransitive forms respectively.

Montrul assumed that L2 learners would be able to identify common aspects of related verbs since this knowledge is also available in their native language, where native language is a subset of Universal Grammar (Schwartz & Sprouse 1996). Furthermore, if L2 learners transfer both idiosyncratic and structural aspects of verb meaning when lexical items coincide in the L1 and the L2, then L2 learners should have little difficulty in identifying the particular verb class and syntactic behaviour of some verbs. However, it is

also probable that learners might not transfer everything from their L1, and thus they might over-generalize the causative/inchoative alternation to verbs that do not produce it.

The results show that the English speakers had more difficulty with the reflexive morphology of alternating verbs than the L2 Turkish learners, since the Turkish speakers have this morphological pattern in their L1. In addition, the results show that the English learners of Spanish rejected the correct constructions with the reflexive clitic *se* and accepted more often the ones without it. In contrast, the Turkish speakers judged the sentences in the same way as the control group.

Since the class of verbs that participate in the causative/inchoative alternation is broader in English than in Spanish, there was overgeneralization of the construction to verb classes that do not alternate in Spanish. Moreover, there were differences among language groups, since individual items are classified differently in the native and target languages (Sorace 1995; Rosen 1984).

In summary, L2 learners distinguished semantically, syntactically and morphologically between alternating unaccusative verbs, non-alternating unaccusative and transitive verbs and unergative verbs. L2 learners are unconsciously aware of the systematic difference between verb classes, because they were able to identify the structural meaning that underlies the different verb classes. Montrul (1999) interprets these errors as deriving from L1 transfer (positive and negative) onto the target language and the knowledge derived from UG. However, the author points out that it is difficult to determine if the errors from overgeneralization were a result of UG or the L1, since L1 is a subset of UG.

3.2.2. Sorace (1993a)

Sorace studied L2 learners of Italian at the most advanced stage of interlanguage development. In her studies, she examines whether, and to what extent, non-native speakers acquire knowledge of unaccusativity in Italian, focusing mainly on the lexical-semantic representation.

The experiment consisted of 24 English and 20 French near-native speakers of Italian. The criterion for near nativeness was native-like performance from the point of view of fluency and accuracy. The subjects had to judge sentences involving three constructions: (i) the construction with essere selection with five classes of unaccusative verbs along the Unaccusative Hierarchy¹²; (ii) the construction with optional auxiliary change in restructuring constructions; and, (iii) the construction with obligatory auxiliary change where the clitic moves to the main verb. The constructions were based on five verb types, where each type was tested with essere (grammatical) and avere (ungrammatical).

Unaccusativity in Italian is a syntactic phenomenon, just as it is in French. In English, however, it is mainly a semantic one. For this reason, French speakers were sensitive both to the syntactic and the semantic aspects of unaccusativity, whereas the English speakers were only sensitive to the semantic ones. This indicated that the English learners transferred from their L1 the concept that unaccusativity is based solely on

¹² Unaccusative Hierarchy

Verb type	Dimension	Diachronic	French aux	Italian aux
a. unpaired				
unaccusatives	Concrete,	- open to		
change of location	Movement	haber-reflexes	être	essere
change of condition			être/avoir	essere
continuation of a condition	Abstract,	+ open to	essere	
existence of a condition	Staticity	avoir	avoir	essere
b. paired unaccusatives				
with transitive alternant			avoir	essere
with unergative alternant			avoir	essere

semantics. Consequently, the English learners did not pay attention to the syntactic phenomenon when they were judging the three constructions.

As seen in chapter 2, in Italian, a series of syntactic diagnostics distinguishes the class of unergative verbs from the class of unaccusative verbs. In particular, Sorace investigated the restructuring construction, since it is an aspect of auxiliary selection that is syntactically related to unaccusativity (Rizzi, 1982; Burzio, 1986; Pearce, 1990). She examined two such restructuring constructions that are triggered by certain raising and control verbs (potere/can, dovere/must, volere/want), by a number of unaccusative verbs, and, by certain aspectual verbs such as cominciare/begin. The first such construction is the optional ‘transmission’ of the auxiliary essere from an embedded verb to a matrix verb that independently takes avere:

(118) Optional auxiliary change

Mario è-ha dovuto andare a casa

Mario is-has to go home

‘Mario had to go home’

The second type of construction involves the movement of a clitic originating in the embedded verb to the matrix verb. This clitic is optional, but the auxiliary change is obligatory:

(119) Optional clitic-climbing (with obligatory auxiliary change)

(a casa), Mario ci è-*ha dovuto andare

(home), Mario there is-has had to go

‘(home), Mario had to go there’

As opposed to Italian where only essere is possible, in modern French these phenomena no longer exist, even though French has clitics. Furthermore, English has

neither clitics, nor restructuring constructions, and it lacks the system of auxiliary selection. What is more, English has a semantic class of unaccusative verbs, but does not produce any of the syntactic properties that the author set out to investigate in this particular study. In contrast, French has a system of auxiliary selection that is in parametric variation with the Italian system.

The results of the study show that French and English near-native speakers of Italian are sensitive to the semantic categories along the Unaccusative Hierarchy. With regard to the syntax of restructuring, only French learners showed some knowledge of the syntactic properties related to this construction. The subjects were similar to the Italian control group concerning the restructuring of obligatory auxiliary change, where they correctly accepted the sentences with obligatory switch on the one hand and rejected those without auxiliary change on the other (see example 119). For the English speakers, there was no significant difference in their performance on grammatical versus ungrammatical sentences for the production of the restructuring with obligatory auxiliary change. Due to L1 transfer, the English learners were unable to differentiate between the two sentence types. In the case of optional auxiliary change, the learners neither strongly rejected nor accepted the sentences. This indicates that the English L2 learners of Italian were unaware of the options, since unaccusativity in English is not a syntactic factor.

In summary, the intuitions of near-native speakers are, on the whole, different from native Italian intuitions; however, non-native learners are capable of native-like performance despite the fact that their knowledge representations differ from native ones.

3.2.3. Hirakawa (1999)

Hirakawa investigated L2 learners of Japanese whose L1s are English and Chinese to see if these learners had knowledge of unaccusativity at deep and surface levels. Within the generative framework, it has been claimed that deep unaccusativity is universal. As a result, Hirakawa (1999) proposed that L2 learners, guided by UG, would show sensitivity to the unaccusative-unergative distinction at deep structure. Furthermore, she maintained that the Uniformity of Theta Assignment Hypothesis¹³ (UTAH) is a universal principle from which the UH is derived. If L2 learners have no access to UG, then they will not be able to detect the unaccusative-unergative distinction in Japanese.

On the other hand, surface unaccusativity in English and Chinese is observed in limited structures, whereas in Japanese surface unaccusativity is represented in a way that is distinct from these languages. For this reason, Hirakawa (1999) expected that the L2 learners, in the initial stage, would acquire this phenomenon with no difficulty.

The experiment consisted of 13 native speakers of English and 16 native speakers of Chinese. To test the hypotheses, Hirakawa used two tasks: a picture task and an acceptability judgement task. In the picture task, the L2 learners had to indicate if the sentence correctly described the picture. This task consisted of 25 pictures in total. In the acceptability judgement task, subjects had to indicate whether a sentence was acceptable or not. The author tested four types of constructions: (i) the construction containing a transitive subject marked by wa (the topic marker) and a transitive object without o¹⁴; (ii) the construction containing a transitive subject without ga and a transitive object with o;

¹³ UTAH states that a particular semantic role consistently maps to the same syntactic position at Deep structure (Baker, 1988).

¹⁴ In colloquial Japanese, the accusative Case marker o is often dropped from the object of a transitive sentence (Hirakawa 1999: 93).

(iii) the construction containing an unaccusative subject without ga; and, (iv) the construction containing an unergative subject without ga.

Hirakawa claims that to identify deep unaccusativity in Japanese the adverb takusan/a lot is used. The adverb forms constructions, in which it takes on transitive objects, passive subjects and unaccusative subjects on the one hand, and transitive subjects and unergative subjects on the other. In addition, the adverb can modify almost any NP. Another characteristic of Japanese is that it allows for subject and/or object drop. In view of this, how is it possible to determine what the adverb modifies? Hirakawa claims that takusan can only modify an internal argument inside the VP. Thus, in example (120), the adverb modifies an internal argument since, by definition, unaccusative verbs have internal arguments and do not have the external ones:

(120) Takusan tui-ta
 a lot arrive-PAST
 'A lot of people arrived' [Hirakawa 1999: (8)]

In (121), the adverb no longer modifies an internal argument because the verb in the sentence is unergative. Instead, the adverb describes "the amount" of action denoted by the verb:

(121) Takusan nai-ta
 a lot cry-PAST
 'We, they, he, she cried a lot' [Hirakawa 1999: (9)]

Surface unaccusativity in Japanese is represented in the case-drop phenomenon. The nominative Case marker ga cannot be omitted from the subject of a transitive sentence while the accusative Case marker o can. This is important, because if one proposes that the unaccusative subject behaves like the object of a transitive sentence, then ga can be omitted. Furthermore, case-drop suggests that the unaccusative subject

never moves out of VP. This property, however, is not typical of unergative subjects, as seen in (123):

(122) [Kootuu-ziko-(ga) okor-u] no mia-ta koto mai
 traffic-accident-NOM happen-PRE NMLZR see-PAST fact not
 ‘I have never seen traffic accidents happen’

(123) [Kodomotati-*(ga) asob-u] no mi-ta koto nai
 children-NOM play-PRE NMLZR see-PAST fact not
 ‘I have never seen children play’ [Hirakawa: 1999 (11a-b)]

Summing up, L2 learners of Japanese made the transitive subject/object distinction and thus made the unaccusative-unergative distinction as well. Furthermore, the author indicates that UTAH was available to the L2 learners, since they had no mapping problems in linking a theme argument to the verb’s internal argument position. If UTAH was not a part of UG, then L2 learners would not have made the unaccusative-unergative distinction. Both groups of learners showed knowledge of deep unaccusativity and the results did not differ from the control group. At the level of surface unaccusativity, native speakers of Japanese did not fully distinguish the unaccusative-unergative distinction. The English and the Chinese speaking learners, as hypothesized, showed difficulties in acquiring the distinction.

3.2.4. Oshita (2000)

Oshita investigated the reason for “passive” unaccusative errors. He states that though this issue has been studied in the literature, second language researchers do not agree on the origin of the problem. The author carefully examined five major accounts that could attribute for the errors; he concludes that the “passive” unaccusative error

should be regarded as an overt marker of NP movement and as overgeneralization of the passive morphosyntax of the target English. The author begins by examining some “passive” unaccusative errors having the NP-be-Ven pattern. These errors are called “passive” unaccusative because they resemble the English passive construction in which the auxiliary verb be followed by the past participle of a transitive verb, as seen in (124):

- (124) a. *The most memorable experience of my life was happened 15 years ago
 b. *Most of people are fallen in love and marry with somebody
 c. *What was happened?

The subjects in Oshita’s experiment were native speakers of Italian, Spanish, Japanese and Korean. Non-alternating unaccusative verbs were selected from a total of 3362 essays produced by non-native speakers of English. Sentences with unaccusative verbs were extracted from the research corpus by a search program. In those cases where the token sentences did not provide sufficient information for the investigation, additional context was taken into account for the correct interpretation of the use of the selected verbs. Oshita classified these sentences into ten structural patterns, where eight were logical possibilities based on the following criteria:

- (125) (i) the position of the NP argument vis-a-vis the verb (preverbal or postverbal)
 (ii) the type of verbal phrase (the existence or lack of the be + en)
 (iii) the existence and type of expletive subject (there, it or pro)

[Oshita 2000: (1-3)]

Additionally, ten unergative verbs were pre-selected and the syntactic distribution of their tokens was contrasted with that of the unaccusative verbs.

The results of the study showed that the NP-be-Ven structure was the one most commonly used by all L2 groups combined, though there were enormous differences

among the L1s of these groups. With regard to unergative verbs, which were extracted from 640 token sentences, only one error was found in the L2 groups. This indicates that the majority of the errors occur with unaccusatives rather than unergatives, and further indicates that second language learners have awareness that intransitive verbs are not all of the same type.

Oshita concludes by asserting that there is no L1 transfer. His reason for this is that the languages in question do not have equivalent structures and that second language learners cannot transfer non-existent grammatical knowledge to the target language. For this reason, the author claims that the errors stem from the fact that be + en is an overt marker of NP movement, classified as a type of overgeneralization based on the passive morphosyntax of the IL English.

3.3. Conclusion

To a certain extent, L2 learners are capable of judging, crosslinguistically, the semantic class to which a newly acquired verb belongs. Montrul's study has shown that L2 learners are sensitive to the semantic, syntactic and morphological distinction among the different verb classes in Spanish. In addition to this Juffs (1998) points out that this phenomenon is superficially covered in classrooms and textbook materials. The errors are explained in light of the interaction between L1 knowledge, knowledge of the target language (input), and knowledge derived from UG. Data in Sorace's (1993a, 1993b, 1995) study confirm the findings of Coppieters (1987) that non-native groups seem to be capable of native-like performance, despite the fact that their knowledge representations are substantially different from those of native representations. Sorace however, unlike Montrul (1999), interprets the errors in her experiment as deriving from a difference in

competence between French and English subjects, and not as a reflection of the presence of the specific properties investigated, or the presence of these properties in the L2 input. She rather explains the errors in terms of the overall representations of unaccusativity in French and English.

English-speaking and Chinese-speaking learners of Japanese observed the unergative-unaccusative distinction only at one of the levels investigated by Hirakawa (1999). The unobserved distinction occurred at surface level, and this accounts for the fact that optional NP movement is involved in native speakers' knowledge of unaccusative verbs. Oshita (2000) believes that the explanation for "passive" unaccusative errors is not due to L1 transference, since the L2 learners that he studied do not have similar structures in their L1s.

To summarize, not all L2 learners are capable of correctly classifying intransitive verbs as unaccuatives and/or unergatives, since the ability to grasp a grammatical aspect of the language that is totally new or to some extent new to them depends upon the individual.

3.4. The hypotheses

We maintain that L2 learners should show sensitivity to the unaccusative/unergative distinction in Spanish guided by Universal Grammar. We will analyze the data from the results to test the following hypotheses:

(i) first, we hypothesize that L1 does not play a role in the acquisition of Spanish intransitive verbs by English and French learners. As a result of this, we will expect to see

no difference at the production level between these two language groups. In addition, there should be no transfer of L1 into L2.

(ii) however, we will also propose that UG is involved in L2 acquisition. Consequently, we will maintain that L2 learners have access to UG and should in principle be able to identify common aspects of related verbs, because this knowledge is also available from their native language (Schwartz and Sprouse, 1996). We will test this hypothesis at two proficiency levels: intermediate and advanced in both language groups.

(iii) lastly, we hypothesize that if L2 learners transfer both idiosyncratic and structural aspects of verb meaning when lexical items coincide in L1 and L2 (ex. desaparecer, disappear and disparaitre), then these learners should have little difficulty identifying the particular verb class and syntactic behaviour of some verbs. However, we predict that L2 learners may cross classify intransitive verbs (Sorace 1984).

Chapter 4

The study

4.0. Introduction

In order to investigate whether non-native speakers of Spanish are able to differentiate the subtle differences between unergative and unaccusative verbs in Spanish, we have carried out the study that we describe in this chapter.

4.1. Participants¹⁵

A total of 38 participants took part in the experiment. There were 13 English-speaking and 13 French-speaking learners of Spanish. Twelve native speakers of Spanish from Spain acted as the control group. The English and French¹⁶ learners were recruited in Barcelona, Spain at the Escola Oficial d'Idiomes and in Ottawa at the Department of Modern Languages and Literatures of the University of Ottawa.

In order to ensure comparability of subjects at the competence level, all the subjects completed the standardized test SGEL (Sociedad General Española de Librería, Madrid, Spain). The participants completed the SGEL before the experimental tasks, and the test was used as an independent tool to rank the learners. According to the results from this test, learners were classified into different proficiency groups. The 13 English and 13 French-speaking learners were divided into two levels: intermediate and advanced.

¹⁵ English and French learners tested in Ottawa have knowledge of French and English as their L2.

¹⁶ We use the terms 'English' and 'French' to refer to the native languages of the participants, and not necessarily to their nationality.

Learners also completed a questionnaire outlining his or her personal, educational and language background (Appendix 1). The questions were intended to obtain information on their language experience, L1s and L2s, languages used in childhood, in school or other institutions and education, as well as languages currently used in daily life. Table IV.1 provides a profile of each subject and ranks them according to a descending order for the experimental groups and in an ascending order for the control group based on the SGEL test results.

Table IV.1. Participants¹⁷

Experimental group # 1.									
#	age	L1	L2 (s)	L at work	SGEL (%)	exposure to Spa.	time/Spanish speaking country		
INTERMEDIATE									
I01E	17-25	EN	0	EN	52	0			
I02E	17-25	EN	0	EN	55	20hrs/w	6 weeks		
I03E	17-25	EN	PO	EN	62	1hr/w			
I04E	+40	EN	FR, GE, IT	EN	69	0			
I05E	26-40	EN	TH	EN,SP	70	28hrs/w			
I06E	17-25	EN	0	EN,FR	73	0			
I01F	17-25	FR	RU, PL, SP	0	63	4hrs/w			
I02F	17-25	FR	0	FR,EN	65	5hrs/w			
I03F	17-25	FR	0	FR,EN	72	6hrs/w	1 week		
I04F	17-25	FR	GE	FR,EN	73	1-2hrs/w	2 weeks		
I05F	17-25	FR	SP, EN	FR,EN	73	3hrs/w			
I06F	+40	FR	EN	FR,EN	78	2hrs/w	5 weeks		

¹⁷ Ar= Arabic, Ca= Catalan, En=English, Sp=Spanish, Fr=French, Ge= German, It=Italian, Po=Portuguese, Pl=Polish, Ru=Russian, Th=Thai

Experimental group # 2.								
#	age	L1	L2 (s)	L at work	SGEL (%)	exposure to Spa.	time/Spanish speaking country	
ADVANCED								
A07E	26-40	EN	IT	EN	78	10hrs/w	2 1/2 years	
A08E	17-25	EN	0	EN	79	0		
A09E	17-25	EN	SPPOFREN	SP	82	Spain		
A10E	17-25	EN	FR, CA	EN,FR	86	3-4hrs/w	10 months	
A11E	26-40	EN	SP, CA	EN,SP,CA	88	Spain	10 years	
A12E	26-40	EN	SP,EN	EN,SP	92	30hrs/w	3 weeks	
A13E	26-40	EN	SP, CA	SP,CA	93	60hrs/w	4 years	
A07F	17-25	FR	0	FR,EN	81	3hrs/w	5 months	
A08F	26-40	FR	IT	0	83	Spain		
A09F	26-40	FR	SP, CA	0	84	8hrs/w	3 weeks	
A10F	17-25	FR	GE, IT	FR	93	25hrs/w		
A11F	17-25	FR	SPA	FR,EN,SP	93	30hrs/w		
A12F	17-25	FR	EN, SP	FR,EN	94	10-12hrs/w	6 months	
A13F	26-40	FR	SP, CA	FR	95	Spain		

Control group						
#	age	L1	L2 (s)	L at work	SGEL (%)	
C01S	26-40	SP	0	SP	98	
C02S	26-40	SP	0	SP	96	
C03S	26-40	SP	EN, IT	SP	96	
C04S	26-40	SP	0	SP	96	
C05S	26-40	SP	AR	SP	96	
C06S	0+40	SP	0	SP	95	
C07S	0+40	SP	0	SP	95	
C08S	26-40	SP	0	SP	94	
C09S	26-40	SP	EN	SP	94	
C10S	26-40	SP	EN	SP	91	
C11S	012-17	SP	0	SP	89	
C12S	012-17	SP	EN, FR	SP	79	

4.2. Verbs included in both tasks

Since the objective of this study is to see if L2 learners can differentiate the two types of Spanish verbs in terms of their syntactic behaviour, we selected core unaccusative and unergative verbs.¹⁸ Table IV.2 presents our intransitive verbs used in both tasks:

Table IV.2.

Unaccusatives		Unergatives	
Crecer	'grow'	cantar	'sing'
Desaparecer	'disappear'	dormir	'sleep'
Faltar	'lack'	gritar	'yell/shout'
Ir	'go'	hablar	'speak'
Llegar	'arrive'	llorar	'cry'
Llover	'rain'	viajar	'travel'
Morir	'die'		

4.3. The grammaticality judgment task

In the grammaticality judgment task (Appendix 2), a written list of sentences was presented and the subjects were asked to indicate whether a given sentence was correct or incorrect. Following this classification, the subjects who decided that a sentence was incorrect had to write the version that he/she would use. Lastly, the test required that subjects translate all sentences into their mother tongues. This would help us in the process of analyzing the data, since we could discard the cases where learners did not understand a given sentence. A pilot test was first tried on 2 native and 2 native-like Spanish speakers in an informal environment that provided us with information about the items to be tested. Test sentences were based on the four unaccusative diagnostics that

¹⁸ The semantic class of alternating unaccusative verbs has not been included in any of the items tested. This class has a transitive counterpart, and therefore we decided to exclude this semantic type; moreover, this particular sub-class of unaccusative verbs has been tested in recent studies (Montrul, 1999a) with

are known to be a valid test that distinguishes between the two types of intransitive verbs. The sentences from the ‘impostor’ diagnostic were also included in this task. Furthermore, even though only one type of intransitive verbs is allowed in a given construction we placed both types of intransitives in all the unaccusative diagnostics to see if L2 learners would classify both verbs in the same manner or would see the distinction. The following constructions were used to test the L2 learners’ knowledge of Spanish intransitive verbs:

- (i) Post-verbal / Pre-verbal NPs – Post-verbal and pre-verbal NPs used with unaccusative and unergative verbs.

Falta café para el desayuno de mañana.

Pepita duerme mucho cuando va de viaje.

*Dinero falta para comprar el pase de autobús.

*Viajan muchas parejas a Roma después de la boda.

- (ii) The adverbial clause – unaccusatives and unergatives were used with this construction. With unaccusative verbs the NP was placed both after and before the adverbial clause.

Llegado el ministro, comenzó la reunión.

*El profesor llegado, comenzó la clase.

*Llorado el niño, vino su madre.

- (iii) The adjectival clause – unaccusatives and unergatives were used with this construction.

La primavera, llegada cuando aún no la esperábamos, fue bienvenida.

*Juan, hablado todo lo que quería, colgó el teléfono.

(iv) Present Participle: -ente/-ante – unaccusatives and unergatives were used in this construction.

*Tengo que cortar la hierba creciente en mi jardín.

A mi hermana le gusta mucho el cuento de la bella durmiente.

(v) ‘Impostor test’: auxiliary selection – unaccusatives and unergatives were used with both HABER and SER. With unaccusatives, the NP was placed post-verbally and pre-verbally.

Mi abuelo ha muerto de cáncer de pulmón.

Pavarotti ha cantado mucho este año.

*Mi gato es muerto hace un rato. Se ha caído por la ventana.

*Plácido Domingo es cantado en los grandes festivales de ópera.

All sixty sentences were ordered randomly.

4.4. Multiple choice task

This test consisted of 39 sentences ordered randomly. The subjects had to decide whether a sentence was correct or incorrect by circling the appropriate answer (Appendix 3). The same verbs and structures were used in this test as in the grammaticality judgment task; however, we changed the context of the sentences. The objective was not to be redundant at any moment during the tests and to avoid using sentences that did not sound native-like.

4.5. The test situation

Volunteers were recruited in classrooms on an individual basis. The tests were conducted at the graduate students’ office at the Department of Modern Languages and Literatures, University of Ottawa and at the Escola Oficial d’Idiomes in Barcelona, Spain.

All subjects did the tests in the same order; that is to say, first the SGEL test, then the multiple-choice task, and lastly the grammaticality judgment task. Time was not included as a factor in judging performance. The participants completed the multiple-choice task and the SGEL quickly, but took more time on the grammaticality judgment task. During all testing it was emphasized that no marks would be given and that they were to respond with the first answer that came to mind. No one was rushed and no subject complained about lack of time to complete the tasks. Interaction between subjects was not allowed.

There is no clear-cut correspondence between the results from the SGEL and performance on the task, because L2 learners who did poorly on the SGEL test distinguished intransitive verbs in a better and more efficient manner than L2 learners who scored highest on the SGEL. This applies both to the intermediate level and advanced level. SGEL might measure general proficiency, including structure and vocabulary; nevertheless, it does not seem to correlate with competence in this specific area of intransitivity.

4.6. Group Results

4.6.1. Results for the grammaticality judgment task

4.6.1.1. Post-verbal NPs – Pre-verbal NPs

The results of the grammaticality judgment task are reported in terms of level and L1. Firstly, we calculated the number of correct responses given by both language groups and then calculated the number of accurate corrections of the ungrammatical experimental sentences. Once we had the raw number, we calculated the total number of correct grammatical sentences. From the results in Table IV.3 we see that the English and French groups corrected the same amount (26.9%) of unacceptable experimental sentences; these

consisted of both unaccusative and unergative verbs. The control group corrected a total of 63.5%.

Table IV.3. Percentage of Post-verbal/Pre-verbal NPs by L1

	Raw Gram.	Raw Ungram.	Total Raw
English (n=13)	(100/104) 96.2%	(28/104) 26.9%	(128/208) 61.5%
French (n=13)	(95/104) 91.4%	(28/104) 26.9%	(123/208) 59.1%
Control (n=12)	(95/96) 99.0%	(61/96) 63.5%	(156/192) 81.3%

However, we only accepted a corrected sentence that matched our experimental sentence-construction criteria. Therefore, if an L2 learner provided a correct construction that did not match our purposes we classified it as correct, but in a category we called ‘other’, and we did not include these responses in the final results; this procedure was also followed for the native control group. Thus, with respect to (127), we did not accept sentences such as (128); we only accepted sentences such as (129):

(127) *Muchas flores han crecido en mi jardín

(128) Muchas flores crecieron en mi jardín

(129) Han crecido muchas flores en mi jardín

The results in Table IV.3 show that the production of correct answers is slightly greater in the English-speaking group (61.5%) than in the French one (59.1%). Overall, both language groups corrected grammatical constructions when an NP was post-verbal in the case of the verbs llegar, crecer, desaparecer. However, when the unaccusative faltar appeared in an identical construction, L2 learners judged the sentence as grammatical:

(130) Falta café para el desayuno de mañana

Faltar may not have been the best verb to use in the test, since in Spanish this verb is learned as an idiomatic expression. This might answer in part why L2 learners right away corrected the directionality of the NP used pre-verbally with faltar. Only two English L2 learners from a total of 13 accepted the pre-verbal NP with faltar. Four French intermediate L2 learners from a total of 13 subjects misjudged the construction.

Table IV.4 shows results by level. The intermediate level accepted 93.8% grammatical sentences, while the advanced group accepted 79.5%. This difference may be explained through U-shaped learning. U-shaped learning (Kellerman, 1985) describes systematic linguistic behaviour in three recognized stages: an initial stage of target-like performance, a second stage in which errors increase, and a third stage in which target-like performance is again achieved. Assuming that the L2 advanced learners in this study are in the second stage of this U-shaped learning, it may be speculated that the L2 intermediate learners are in the first stage of U-shaped learning. U-shaped learning only describes what is going on, however it does not explain why exactly the results are much higher. We speculate that the L2 advanced learners have overcome the period of full-transfer of the properties of these lexical items and have re-structured their L1 grammar (English or French) towards the target grammar (Spanish). There is no full access stage because results for the production data of intransitive verbs in the intermediate stage do not exist for this group, and this therefore remains an empirical question.

Table IV.4. Percentage of correct Post-verbal – Pre-verbal NPs by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(90/96) 93.8%	(20/96) 20.8%	(110/192) 57.3%
Advanced (n=14)	(89/112) 79.5%	(71/112) 63.4%	(160/224) 71.4%
Control (n=12)	(95/96) 99.0%	(61/96) 63.5%	(156/192) 81.3%

When preparing the experimental sentences we did not take into account the fact that Spanish, like Italian, allows free word inversion (see Liceras 1994). However, for this particular test the only verbs that allow a post-verbal NP are the unaccusatives, and therefore any other verb that is not unaccusative violates this condition. When free word inversion occurs this is not respected, as in (131):

(131) Viajan muchas parejas a Roma después de la boda (unergative verb)

In our experiment, all unergative verbs in this type of construction were automatically ungrammatical; nevertheless, when the control group had to judge them as correct or incorrect they accepted the inversion. We judged such results as ungrammatical with both the experimental and control groups. We decided to follow the canonical word order (SVO), to be able to determine whether our participants differentiate between unaccusative and unergative verbs.

4.6.1.2. The adverbial clause

Past participles in Spanish form absolute constructions. In these constructions, a past participle appears with its subcategorized object and agrees with it in gender and

number (as adjectives do). However, only the unaccusative intransitive verbs do not violate this condition. French and English allow this construction with unaccusative verbs; therefore, in principle L2 learners should have no problems correcting the ungrammatical participial absolutes.

On the whole, participial absolutes were not accepted by native speakers, as Table IV.5 shows. One of the reasons might be that it is an antiquated use and therefore in everyday life other options are employed. When confronted with a correct sentence as in (132), native speakers did not judge it as correct and provided a correct equivalent such as the one in (133):

(132) Llegado el ministro, comenzó la reunión

(133) Cuando llegó el ministro, comenzó la reunión

Table IV.5. Percentage of correct participial absolutes by level

	Raw.Gram.	Raw.Ungra.	Total Raw
Intermediate (n=12)	(28/48) 58.3%	(22/96) 23.0%	(50/144) 34.7%
Advanced (n=14)	(35/56) 62.5%	(52/112) 46.4%	(84/169) 49.7%
Control (n=12)	(25/48) 52.1%	(47/56) 83.9%	(76/144) 52.8%

In the case of the unaccusative verbs, the subjects only had to switch the order of the past participle and its NP to render the sentences grammatical. Nevertheless, most subjects opted for a completely new sentence structure that sometimes even involved a change in the verb's tense and mode, as in (134):

(134) Al llegar el profesor, comenzó la clase.

Consequently, the accepted results are quite low because our subjects did not produce what we expected. Table IV.5 shows that results are similar for all three groups.

In French and English the past participle does not precede its NP as occurs in Spanish. This may explain why French subjects corrected sentences such as those in (135) and placed the NP before the past participle, as in (136):

(135) Llegado el ministro, comenzó la reunión

(136) *El ministro llegado, comenzó la reunión

As a consequence, when we hoped that subjects would change the directionality of the NP (to produce a grammatical adverbial clause the NP must be placed post-verbally) they did not. Further, they accepted ungrammatical sentences, as in (137):

(137) *El profesor llegado, comenzó la clase

The same phenomenon was observed with the English-speaking group; though to a lesser degree. Eleven out of 13 French learners classified (137) as grammatical and only 8 out of 13 English learners judged this structure as grammatical. This seems to reflect a clear instance of L1 transfer for both language groups and explain why both groups have the same number of corrected ungrammatical tokens (35.6%), as seen in Table IV.6:

Table IV.6. Percentage of participial absolutes by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(33/52) 63.5%	(37/104) 35.6%	(70/156) 44.9%
French (n=13)	(27/52) 51.9%	(37/104) 35.6%	(64/156) 41.0%
Control (n=12)	(25/48) 52.1%	(47/56) 83.9%	(76/144) 52.8%

Both the English and French groups accepted the participial absolute construction with unergative verbs and judged it as grammatical, even though neither L1 allows this construction with unergative verbs. The French group, and some of the English-speaking learners, only accepted the construction with unergative verbs when the past participle was placed after its NP, in accordance with unaccusative verbs in their L1s, as in (138):

(138) *El presidente hablado, la gente se irritó

Since this sentence is ungrammatical in both French and English, this means that the L2 learners accept this structure because they do not have any intuition as to whether the sentence in (138) is grammatical.

4.6.1.3. The adjectival clause

As stated in chapter 2, Schroten (1986) and Bever and Sanz (1997) maintain that adjectival participials behave as modifiers of an NP that is a syntactic subject of an unaccusative verb; however, they cannot be modifiers of an NP that is a syntactic subject of an unergative verb. They conclude that this is a valid unaccusative diagnostic that distinguishes between the two verbs, as it does in Italian.

In our experiment we followed the criteria given by these linguists, but discovered that only two native speakers accepted the construction, as in (139) and (140):

(139) La primavera, llegada cuando aún no la esperábamos, fue bienvenida

(140) La carretera, llovida del norte al sur, era muy peligrosa

One of these two native speakers accepted the construction with llegar and the other accepted the construction with llover. The rest of the native speakers provided alternative constructions with unaccusative verbs, but not the adjectival participials.

As seen in Table IV.7, French learners accepted 53.8% of the adjectival constructions while the English group accepted 46.2%.

Table IV.7. Percentage of correct adjectival clause responses by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(24/52) 46.2%	(33/52) 63.5%	(57/104) 54.8%
French (n=13)	(28/52) 53.8%	(36/52) 69.2%	(61/104) 58.7%
Control (n=12)	(2/48) 4.2%	(46/48) 95.8%	(48/96) 50.0%

The average of 50% indicates that the non-native learners do not have intuitions about this construction and provide responses at chance.

The results by level indicate that the adjectival construction was accepted more often by the intermediate level (60.4%), while the advanced group did not consider the construction as grammatical (39.3%), as shown in Table IV.8. The explanation for these results may be that the group at the intermediate level has not reached the same level of knowledge of Spanish usage as the advanced one, as the latter seems to be closer to the native speakers.

Table IV.8. Percentage of correct adjectival clause responses by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(29/48) 60.4%	(28/48) 58.3%	(57/96) 59.4%
Advanced (n=14)	(22/56) 39.3%	(41/56) 73.2%	(63/112) 56.3%
Control (n=12)	(2/48) 4.2%	(46/48) 95.8%	(48/96) 50.0%

Given the results, we have to conclude that this construction is not a valid unaccusativity diagnostic, contrary to what Bever and Sanz (1997) and Schroten (1986) propose. One cannot maintain that, because Italian allows this construction, Spanish must as well.

4.6.1.4. Present Participle: -ente/-ante

This type of nominalization is believed to successfully distinguish between the two types of intransitive verbs. Nominals with endings -ente/-ante are only correct when derived from unergative verbs. All verbs that we tested were placed in this construction in order to see how the L2 learners would react to them.

What we found was that in some instances, both native and non-native speakers produced other nominals that, even though they were grammatical, did not comply with what we set as our condition, as in (141):

(141) our condition: viajante / hablante given: viajador / hablador

We consider these responses as grammatical but place them in the column labeled as 'other'. Results from all three groups show that the L2 learners and the native speakers seem to be aware that not all intransitive verbs permit such nominals.

The intermediate level produced the highest amount of correct present participles (97.9%), as seen in Table IV.9. The only explanation we have for this - given our way of classifying these responses - is that at the beginning stage, the less lexical choice they have, the more possibility there is that they do not know that variants exist.

The advanced and control groups produced almost the same number of correct tokens. At both levels subjects felt that the present participle that they were given did not completely satisfy their selection and therefore, they changed it to another only if such a

possibility was available. Overall, the control group produced the most number of correct nominals (89.6%), the intermediate group achieved 54.2% correctly produced and the advanced group correctly produced 67.9% of the items, as seen in Table IV.9. Thus, in terms of actual competence the results are in line with our expectations. However, in terms of acceptance of the actual construction, the responses of the control group show that even if the construction were a valid diagnostic, the participants preferred other lexical items when it comes to usage of the Spanish language.

Table IV.9. Percentage of correct nominals by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(47/48) 97.9%	(5/48) 10.4%	(52/96) 54.2%
Advanced (n=14)	(47/56) 83.9%	(29/56) 51.8%	(76/112) 67.9%
Control (n=12)	(40/48) 83.3%	(46/48) 95.8%	(86/96) 89.6%

On first glance, there is no major difference between the English and French-speaking groups with regard to the production of present participles. Table IV.10 shows that 92.3% of the correct nominals were accepted by the French group. In contrast, the English group scored 36.5% by correcting the ungrammatical tokens, where the French learners only corrected a total of 28.8%. It may be that the French L2 learners who accepted the nominal *muriente did so because a similar nominal exists in their mother tongue (la mourrante). This may indicate that L1 transfer is once again at play for this group.

Table IV.10. Percentage of correct nominals by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(46/52) 88.5%	(19/52) 36.5%	(65/104) 62.5%
French (n=13)	(48/52) 92.3%	(15/52) 28.8%	(63/104) 60.6%
Control (n=12)	(40/48) 83.3%	(46/48) 95.8%	(86/96) 89.6%

4.6.1.5. Haber versus Ser

The implementation of the haber versus ser condition provides ungrammatical Spanish sentences since there is only one perfective auxiliary– haber. As mentioned in chapter 2, auxiliary selection is an unaccusative diagnostic only for Italian and French. In view of this, we decided to investigate what would happen with our French group if we included this impostor as a diagnostic. The construction of this part of the test was guided by the unaccusative diagnostic of auxiliary selection in Italian and in French (section 4.2.1.). In French, the selection of être as perfective auxiliary is restricted to a narrow set of unaccusative verbs unlike in Italian, where the distinction is consistent. While French learners might accept ser, we would not expect English learners to do so since like Spanish, English has only one perfective auxiliary– have.

The results (Table IV.11.) show that the French and English groups obtained the same percentage of grammatical tokens with haber. It is rather surprising to observe that both groups corrected the same number of ungrammatical sentences (43.3%) and accepted the same number of correct ones (91.3%). An analysis of the individual items shows that many French and English learners rejected ser. However, instead of replacing it with

haber, they selected estar as the correct answer. This shows that the lack of a distinction between ser and estar in their L1s plays an important role in the final decision of the L2 learners' production, and that they still do not have the usage of these two verbs in Spanish clear. Thus, there is more than L1 influence here; it is this idiosyncrasy in Spanish that unites both English and French learners, in that their L1s lack the ser/estar dichotomy.¹⁹ English learners should have chosen haber since almost all token sentences were written in such a way as to stimulate the haber selection instead of ser or estar.

Table IV.11. Percentage of correct responses with haber by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(95/104) 91.3%	(45/104) 43.3%	(140/208) 67.3%
French (n=13)	(95/104) 91.3%	(45/104) 43.3%	(140/208) 67.3%
Control (n=12)	(95/96) 99.0%	(84/96) 87.5%	(179/192) 93.2%

The results by level in Table IV.12 show that the advanced group accepted a total of 69.6% correct sentences with the perfective auxiliary haber. The intermediate group, meanwhile, accepted 59.4% of the sentences with haber.

¹⁹ The explanation of ser/estar issue constitutes a difficult problem because it is an aspect of Spanish grammar, which appears in all school textbooks in a very detailed manner, specifying when ser/estar are to be used.

Table IV.12. Percentage of correct responses with haber by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(90/96) 93.8%	(24/96) 25.0%	(114/192) 59.4%
Advanced (n=14)	(100/112) 89.3%	(56/112) 50.0%	(156/224) 69.6%
Control (n=12)	(95/96) 99.0%	(84/96) 87.5%	(179/192) 93.2%

These results include both the grammatical tokens and the items that were ungrammatical and that were changed by L2 learners to fit our condition. The intermediate group accepted a total of 93.8% from all correct sentences with haber. The difference between the advanced and intermediate group is small, at 4.5%. It is problematic to claim that the intermediate group accepted these sentences as grammatical since they may have said 'yes' because they were unsure.

4.6.2. Multiple-choice task

In the grammaticality judgment task, subjects were free to provide their own answer to our ungrammatical experimental sentences; however, in the multiple-choice task participants had three choices, where only one was correct. The correct choice was the one that matched our condition. The results of this task should therefore provide a clearer picture as to whether, and how, learners differentiate unergative and unaccusative verbs in Spanish on the basis of the morphosyntactic differences that we have described.

4.6.2.1. Post-verbal/Pre-verbal NPs

We followed the same criteria in analyzing the data from this multiple-choice task as we did in the grammaticality judgment task. Data was analyzed according to L1 and level. The experimental sentences in this task were changed to prevent redundancy (see Appendix 3). However, the same verbs were tested.

As we have seen, the use of the post-verbal/pre-verbal NP condition is very controversial. The results from the control group show that, due to “free word order” in Spanish, the NP can be placed post-verbally in instances that are not syntactically regulated, because discourse factors and modality influence native speakers’ choices. As stated earlier, we were looking for the canonical word order with unergative verbs. We therefore put ourselves in a difficult position with regard to correction of the data. For the sake of the linguistic analysis, however, we followed the unaccusative diagnostic that states that only unaccusative verbs permit a post-verbal NP.

The results in Table IV.13 show that the English-speaking group accepted a total of 69.2% correct tokens, while the French-speaking group accepted 59.6%. In correcting ungrammatical items, the French group scored better; however, the difference of 1.9% is not significant. The control group only accepted a total of 75% of post-verbal NPs, and corrected a total of 97.9%.

Table IV.13. Percentage of Post-verbal/Pre-verbal NPs by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(36/52) 69.2%	(47/52) 90.4%	(83/104) 79.8%
French (n=13)	(31/52) 59.6%	(48/52) 92.3%	(79/104) 76.0%
Control (n=12)	(36/48) 75.0%	(47/48) 97.9%	(83/96) 86.5%

In the grammaticality judgment task, there was more evidence of free word order, since all participants could correct sentences as they saw fit. In the multiple choice task, they had to accept what was given as an option and free word order is not as frequent since the control group corrected in the multiple-choice test a total of 97.9% and in the grammaticality judgment task a total of 63.5% of ungrammatical tokens. Nevertheless, the results show that in the grammaticality judgment task the control group did not reject post-verbal NPs with unaccusative verbs (99.0%) to the same degree as they did in the multiple-choice task (75%).

In the multiple-choice task, the English group obtained better results (90.4%) than in the grammaticality judgment task (26.9%). This was expected, since they were forced to make a choice and since they could compare the grammatical sentences with the ungrammatical ones. The French-speaking group also achieved better results in the multiple-choice task (92.3%) as compared to the grammaticality judgment task (35.6%).

English and French learners who were unsure whether a sentence was grammatical or not in the grammaticality judgment task left it as it was. Therefore, the results were

much higher in the grammaticality judgment task than in the multiple-choice task, since L2 learners were given options to choose from, as seen in (142) and (143):

(142) _____ en su casita que está en el jardín.

- (a) El perro dorme
- (b) Duerme el perro
- (c) El perro duerme

(143) El año pasado _____ porque hacía frío.

- (a) muchos pájaros en verano desaparecieron
- (b) son desaparecidos muchos pájaros en verano
- (c) desaparecieron muchos pájaros en verano

Results (Table IV.14) by level indicate that the advanced group recognized the highest number of correct items (85.7%). In the grammaticality judgment task, this same group was correct 71.4% of the time on post-verbal NPs. The intermediate group accepted a total of 61.5% of grammatical tokens, where on the other test they accepted a total of 57.3%. At first glance, the difference between the two tasks is slight at both levels. However, in the multiple-choice task, the advanced group accepted a total of 73.2% from all correct tokens and the intermediate group only 54.2%.

Table IV.14. Percentage of Post-verbal/Pre-verbal NPs by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(26/48) 54.2%	(33/48) 68.8%	(59/96) 61.5%
Advanced (n=14)	(41/56) 73.2%	(55/56) 98.2%	(96/112) 85.7%
Control (n=12)	(36/48) 75.0%	(47/48) 97.9%	(83/96) 86.5%

4.6.2.2. The adverbial clause

As mentioned in section 4.6.1.2. the construction used for the production of participial absolutes in every day use is not very frequent. What we may be facing is a very insecure group of learners (both experimental group and control group) in terms of having any intuition whatsoever with respect to this construction. Consequently, we see once again that this linguistic diagnostic is not favored by native speakers' usage.

Nevertheless, since we provided the participants with three options, of which two were ungrammatical and a third which was the correct participial absolute construction, on the whole they selected the latter as the correct answer. In comparison with the multiple-choice task, here the control group accepted a total of 85.4% (as seen in Table IV.15) of the grammatical sentences, which represents an important difference with respect to the grammaticality judgment task, where the same group only accepted 52.1%. This shows that as expected the native speakers are aware that there is a difference between the two types of intransitive verbs.

The intermediate group did better on the grammaticality judgment task, for which they accepted 34.9% of the correct sentences, than they did on the multiple-choice task, where they only selected 14.6% of the correct items. In terms of the performance of individual subjects, Table IV.25a in section 4.7.2. shows that they accepted the construction if the NP was pre-verbal and not post-verbal.

Table IV.15. Percentage of correct participial absolutes by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(7/48) 14.6%	(42/48) 87.5%	(49/96) 51.0%
Advanced (n=14)	(32/56) 57.1%	(53/56) 94.6%	(85/112) 75.9%
Control (n=12)	(41/48) 85.4%	(47/48) 97.9%	(88/96) 91.7%

The error mentioned above was also present in the grammaticality judgment task. Therefore, even if the L2 learner wanted to choose this construction, if the NP was inverted, learners would opt for that answer rather than for the one in which the NP was post-verbal. The L2 learners would not disregard the construction altogether, only the word order. In (144) only one out of 6 intermediate French L2 learners accepted (b) as an answer. The answer most often selected was (a) and only one learner accepted (c). Four out of six intermediate English learners incorrectly answered by selecting the option in which the NP is placed pre-verbally. None of the English intermediate learners accepted (c) as an option.

(144) _____, empezaron a dividir su fortuna.

- (a) Sinatra muerto
- (b) Muerto Sinatra
- (c) Sinatra estado muerto

L1 transfer is prominent in the French-speaking group. The results in Table IV.16 show that the French-speaking learners accepted 23.1% of the correct sentences. The explanation for this is the same as we saw in section 4.6.1.2.; in French, participial

absolutes are only grammatical when the NP is placed pre-verbally and not post-verbally. What we get is pure L1 transfer, since when the NP is used pre-verbally with unaccuative verbs the sentence is accepted as grammatical, but when the NP was placed post-verbally with the same unaccusative verb the French learners classified the item as ungrammatical and switched the order. In the grammaticality judgment task where all sentences were grammatical the English-speaking group accepted 51.9%, which may indicate that they are choosing at chance without knowing what the actual construction is in Spanish.

Table IV.16. Percentage of participial absolutes by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(27/52) 51.9%	(46/52) 88.5%	(73/104) 70.2%
French (n=13)	(12/52) 23.1%	(49/52) 94.2%	(61/104) 58.7%
Control (n=12)	(41/48) 85.4%	(47/48) 97.9%	(88/96) 91.7%

The results are better for the English group than for the French group. In this task they produced a total of 51.9% of correct participial absolutes, while in the grammaticality judgment task they scored a total of 63.5%. This construction is also available in their L1, but the NP is placed pre-verbally. Nevertheless, they accept the construction more freely than the French group even if the NP is post-verbal. If we go back to example (144), only five out of thirteen English L2 learners misplaced the NP. In the case of the French group, only two out of 13 learners correctly chose (b) as the answer.

4.6.2.3. The adjectival clause

The results presented in section 4.6.1.3. indicate that the adjectival construction is not accepted by native speakers, which led us to state that it should not be regarded as a valid unaccusative diagnostic. However, we must now revise that statement because, even though the native control group did not accept the adverbial clause construction in the grammaticality judgment task, they did in the multiple-choice task.

Percentages in the column labeled “Total Raw” (Table IV.17) could be very misleading if left unexplained. In this task, all native speakers in the control group rejected the adjectival construction with unaccusative verbs. We included only three for this experiment (llover, ir, crecer); however, the same verbs were tested in the grammaticality judgment task. In addition, the French-speaking group also rejected all the sentences with these verbs in this construction. The results are very different from those obtained in the grammaticality judgment task, where the French group accepted a total of 53.8%. Once again it may be that it was easier for the French learners to decide on the grammaticality of these sentences in the multiple-choice task since we provided them with options whereas in the grammaticality judgment task, they had to decide for themselves. The English group accepted a total of 10.3% which is less than what they accepted in the grammaticality judgment task (46.2%).

Table IV.17. Percentage of correct adjectival clause sentences by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(4/39) 10.3%	(47/52) 90.4%	(51/91) 56.0%
French (n=13)	(0/39) 0.0%	(51/52) 98.1%	(51/91) 56.0%
Control (n=12)	(0/36) 0.0%	(48/48) 100%	(48/84) 57.1%

We may conclude that the adjectival clause construction should not be considered a valid unaccusative diagnostic, since it is rejected completely by the native speakers.

The results by level (Table IV.18) indicate that the intermediate group only accepted 2.8% of the construction with an adjectival clause and an unaccusative verb. The advanced group accepted slightly more (7.1%). The control group rejected all sentences with unaccusative verbs in this construction.

Table IV.18. Percentage of correct adjectival clause sentences by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(1/36) 2.8%	(45/48) 93.8%	(46/84) 54.8%
Advanced (n=14)	(3/42) 7.1%	(53/56) 94.6%	(56/98) 57.1%
Control (n=12)	(0/36) 0.0%	(48/48) 100.0%	(48/84) 57.1%

4.6.2.4. Present Participle: -ente/-ante

Table IV.19 shows that the advanced group produced an almost equal amount of correct nominals in the multiple-choice task (82.1%) as they did in the grammaticality

judgment task (83.9%). This is not the case for the intermediate group, where there is a huge difference in the production of nominals on the grammaticality judgment task (97.9%) and on the multiple-choice task (54.2%):

Table IV.19. Percentage of correct nominals by level

	Raw.Gram.	Raw.Ungram.	Total Raw
Intermediate (n=12)	(26/48) 54.2%	(27/48) 56.3%	(53/96) 55.2%
Advanced (n=14)	(46/56) 82.1%	(51/56) 91.1%	(97/112) 86.6%
Control (n=12)	(46/48) 95.8%	(48/48) 100.0%	(94/96) 97.9%

The results by language in Table IV.20 show that both the English and French-speaking groups are within close range of each other in total production of nominals. They produced the same amount of nominals derived from unergative verbs (69.2%). In the grammaticality judgment task it was the English group that produced the most nominals; however, the difference of 1.9% as compared with the French group it is minimal. On the multiple-choice task it is slightly higher at 3.8%.

Table IV.20. Percentage of correct nominals by L1

	Raw.Gram.	Raw.Ungram.	Total Raw
English (n=13)	(36/52) 69.2%	(41/52) 78.8%	(77/104) 74.0%
French (n=13)	(36/52) 69.2%	(37/52) 71.2%	(73/104) 70.2%
Control (n=12)	(46/48) 95.8%	(48/48) 100.0%	(94/96) 97.9%

More importantly, the results indicate that the learners notice that not all intransitive verbs allow such derivation of nominals. On this task there was no possibility of providing variants for nominals and therefore it becomes more apparent that the learners observe a difference. The control group accepted a total of 95.8% from all grammatical nominals on this task, where they only accepted 83.3% on the grammaticality judgment task. Moreover, this group corrected all ungrammatical sentences that fit our condition.

4.6.2.5. Haber versus Ser

Since this is a multiple-choice task, the L2 learners had to pick out the correct responses and leave out the incorrect ones. The participants had to decide on their own if such a sentence was grammatical or ungrammatical.

Results in Table IV.21 are slightly better on this task than on the grammaticality judgment task. The English and French-speaking groups obtained similar results in terms of the amount of correct data production; the difference is only 1%. Three French learners selected estar and ser over haber. In French, the verbs disappear and die select the être auxiliary. This is an instance of L1 transfer since for these verbs learners chose estar and ser. The reason for this is that the selection between these two verbs is an aspect of Spanish grammar not present in French, since there is only one verb that means to be.

Table IV.21. Percentage of correct responses with haber by L1

	Total Raw.Gram.
English (n=13)	(100/104) 96.2%
French (n=13)	(99/104) 95.2%
Control (n=12)	(102/104) 98.1%

In this table we see that all three groups produced very similar results. The reason that the control group produced fewer correct answers is that two subjects did not respond for some of the experimental sentences. In comparison to the grammaticality judgment task, results by level are very similar and there is no important difference. For this reason we will not discuss these results.

4.7. Individual results: the grammaticality judgment and multiple-choice tasks

Group results are misleading because they hide variability by subject and by lexical items. By looking at responses on individual verbs, it can be established whether L2 learners treat verbs of the same class alike, as UG theory would predict.

4.7.1. Post-verbal/Pre-verbal NPs

The accuracy percentages in Table IV.22a on individual lexical items show that the English learners are very accurate in their acceptance of unaccusative verbs in post-verbal position. In contrast, the French-speaking learners trail in accuracy on individual items. This group scores the highest with faltar. Recall that this verb is considered to be special in Spanish and is acquired as an idiomatic expression.

Table IV.22a. Percentage accuracy on unaccusative verbs in the post-verbal construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
llegar	'arrive'	100	100	85
crecer	'grow'	100	100	77
faltar	'lack'	100	100	92
desaparecer	'disappear'	92	77	85

To determine whether there is a difference between the two classes of intransitive verbs for the L2 learners, we placed unergative verbs in pre-verbal and post-verbal positions. Results by lexical item in Table IV.22b show that the pre-verbal position was not widely accepted and that in some instances they preferred the post-verbal one. The French-speaking learners tended to be more accurate in accepting pre-verbal NPs with unergative verbs. However, due to free word inversion, the control group is less accurate in doing so. The English-speaking learners show more consistency in rejecting pre-verbal NPs with these verbs. Consequently, the results do not provide evidence for using the NP position as a diagnostic for L2 learners' knowledge of the propection of these Spanish intransitive verbs.

Table IV.22b. Percentage accuracy on unergative verbs in the pre-verbal construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
viajar	'travel'	67	31	62
cantar	'sing'	83	39	62
dormir	'sleep'	75	23	62
hablar	'speak'	42	31	69

As far as the errors with directionality of unaccusative verbs are concerned, the individual results in Table IV.23a confirm the trends of the group results: most of the English-speaking learners accepted the post-verbal NPs with unaccusative verbs, whereas the French-speaking learners rejected more tokens in this construction.

Table IV.23a. Individual results: number of errors per subject per group for each unaccusative verb

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Directionality errors	llegar	2	6	8
	crecer	2	6	7
	faltar	1	0	2
	desaparecer	7	4	4

We should repeat that it is hard to explain any of the results due to free word order in Spanish. The results indicate that native speakers rejected post-verbal NPs with the verbs that we tested. Rejection was at its peak with the unaccusative verb desaparecer, where more than half placed the NP pre-verbally. The multiple-choice task gave participants the option of choosing between pre-verbal and post-verbal placement of the NP. As it turned out, the native speakers accepted both positions. Consequently, this diagnostic does not really provide a way of distinguishing between the two types of intransitive verbs. When in doubt, native speakers chose the unmarked SVO order (Liceras; 1994).

From the results on multiple-choice task, we claim that this condition favours unaccusative verbs over unergative verbs, since the controls rejected the inversion. As seen in Table IV.23b, however, the results are taken from very small numbers and do not merit further discussion:

Table IV.23b. Individual results: number of errors per subject per group for each unergative verb

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Directionality errors	viajar	0	1	3
	cantar	0	1	0
	dormir	0	0	0
	hablar	1	3	1

When participants are free to make decisions on grammaticality and correct experimental sentences, the condition fails to clearly distinguish between the two types of intransitive verbs.

4.7.2. The adverbial clause

The control group was reluctant to accept this type of construction as correct. For this reason, we wonder whether the construction can be considered a valid unaccusativity diagnostic.

The results for lexical item (see Table IV.24a) confirm this suspicion, since neither the participants in the control group nor the L2 learners are very accurate in accepting the participial absolutes. It seems that this construction is a problematic case for the controls; though, it is not entirely rejected, the percentage of accuracy is low. The English-speaking learners accept the construction more frequently with morir and desaparecer than with the other two verbs. The French-speaking learners fluctuate in consistency in producing the construction. They reject it most often with the verb morir.

Table IV.24a. Percentage accuracy on unaccusative verbs in the adverbial clause construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
llegar	'arrive'	50	55	62
crecer	'grow'	50	55	54
morir	'die'	50	69	46
desaparecer	'disappear'	75	69	62

The results by lexical item presented in Table IV.24b show that unergative verbs in the adverbial construction were accepted by both English and French-speaking learners. With the unergative verb *gritar*, half the English learners decided that the adverbial construction was correct even though it is not. The French learners stayed in the same percentage range; they neither strongly accepted nor rejected the structure with unergative verbs. Both experimental groups produced similar results for unaccusative and unergative verbs. This indicates that they are still unaware that intransitive verbs are of two types. We cannot say that they have over-generalized the adverbial construction with unaccusative verbs to the unergative ones, since they may be aware of the fact that Spanish, like Italian, allows "free word order".

Table IV.24b. Percentage accuracy on unergative verbs in rejecting the adverbial clause construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
viajar	'travel'	92	62	62
llorar	'cry'	92	69	69
gritar	'yell'	75	54	62
hablar	'speak'	100	77	69

Recall that the experimental sentences that were ungrammatical in the two tasks only

required a switch of the NP with the adverbial clause to render the sentence grammatical. Only some of the control subjects rejected post-verbal NPs with desaparecer (6 subjects out of 12) and llegar (1 subject out of 12), as seen in Table IV.25a. This indicates that when they were confronted with the construction they accepted it in part instead of rejecting it outright, as was the case in the grammaticality judgment task. The English and French-speaking learners were not very accurate in accepting this construction. The individual results also confirm group results on both the grammaticality judgment task and multiple choice task. The reason for this is that, although this construction is present in their L1s, the placement of the NP is different. Specifically, the NP goes before the adverbial clause and not afterwards. As a consequence, the construction was only accepted when the NP was placed pre-verbally. Six English and three French-speaking learners accepted this construction with unergative verbs.

Table IV.25a. Individual results: number of errors per subject per group with each unaccusative verb

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Directionality errors	<u>llegar</u>	1	7	9
	<u>crecer</u>	0	8	10
	<u>morir</u>	0	5	11
	<u>desaparecer</u>	6	5	10

With unaccusative verbs the error that had to be detected was one of directionality; that is to say, the NP was misplaced. On the other hand, with unergative verbs, no matter where we placed the NP it would result in error. Simply, this type of intransitive verb does not produce the adverbial clause construction. The errors in Table 25b refer to the ungrammatical acceptance of this structure. One control subject judged the structure as

correct with the verb llorar. Two English-speaking learners accepted the structure with llorar, and three with hablar. The French group made the overgeneralization with the unergative verbs viajar, llorar and hablar. Recall that this is the multiple-choice task and that the participants were provided with the correct answer as one of their options. That is to say, overgeneralization may account for their choice of the incorrect option, since their L1s only allow the construction with unaccusative verbs.

Table IV.25b. Individual results: number of errors per subject per group with each unergative verb

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Adverbial errors	viajar	0	0	1
	llorar	1	2	1
	gritar	0	1	0
	hablar	0	3	1

4.7.3. The adjectival clause

The group results show that the participants rejected almost completely the adjectival clause structure with both unergative and unergative verbs. Based on this, we once again reject this condition as a valid diagnostic. Group results tend to be misleading and individual results may shed some light on why the construction was widely rejected by both groups.

The item results in Table IV.26a, confirm group results concerning the rejection of this type of construction by the native speakers. Only two native speakers out of 12 tested said that the construction was grammatical. In consultation with other native speakers who were asked to judge whether the sentence was grammatical or ungrammatical, I found that everyone who responded said that the sentence was ungrammatical. These

subjects are not included in the results because they only gave answers on some of the more problematic aspects of the experiment and did not take the entire tests.

English and French L2 learners accepted the structure. The English and French-speaking learners seem to believe that it is most correct with the verb *llegar*. In addition, the French L2 learners accepted the construction extensively with the verb *ir*. For the French group, I tried to explain their responses through the PE that exists in their L1. However, the PE construction is not entirely an adjectival clause structure.

Table IV.26a. Percentage accuracy on unaccusative verbs in the adjectival clause construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
<i>llegar</i>	'arrive'	9.2	54	62
<i>crecer</i>	'grow'	0	46	54
<i>llover</i>	'rain'	9.2	46	46
<i>ir</i>	'go'	0	46	62

Results for the adjectival clause construction with unergative verbs are shown in Table IV.26b. These show more variation with the two experimental groups than with the control group.

Table IV.26b. Percentage accuracy on unergative verbs: rejection of the adjectival clause construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
<i>viajar</i>	'travel'	100	46	62
<i>llorar</i>	'cry'	92	69	85
<i>gritar</i>	'yell'	100	85	77
<i>hablar</i>	'speak'	92	54	54

The data show that the L2 learners accepted unergative verbs in this construction; their acceptance, however, depended on the verb. Namely, for the English speaking learners it was gritar that was judged as incorrect, while, the French L2 learners selected llorar. The possible corrections that the participants provided are shown in (146) and (147):

(146) *Margarita, llorada desconsoladamente, parecía un bebé (L2 French)

Margarita, llorando desconsoladamente, parecía un bebé

Margarita, pleurant toutes les larmes de son corps, ressemblait à un bébé

(147) *El niño, gritado como un loco, despertó a toda la familia (L2 English)

El niño, gritando como un loco, despertó a toda la familia

The boy who was shouting like a madman, woke the whole family

In the multiple-choice task we only tested three unaccusative verbs. According to Schroten (1986) and Bever and Sanz (1997), this construction should distinguish between the two types of intransitive verbs. The results in Table IV.27a show that the control group classified our experimental sentences with unaccusative verbs as being ungrammatical, where the sentences should be grammatical. Moreover, all French-speaking learners also rejected the sentences that we provided. Three English L2 learners accepted the construction with crecer and one learner with ir. Group results for this task are confirmed by the individual results, which shows that not all unaccusative verbs allow such a construction. It is not possible to conclude, therefore, that this condition can successfully separate unaccusative verbs from unergative verbs.

Table IV.27a. Individual results: number of errors per subject per group with each unaccusative verb

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Adj. clause errors	crecer	12	10	13
	llover	12	13	13
	ir	12	12	13

We placed unergative verbs in the same type of structure to see if participants from both groups would accept or reject the structure. The control subjects did not accept any of the unergative verbs in this construction and chose the correct option, as seen in Table IV.27b. The behaviour of the French L2 learners was similar to that of the control group in that they rejected the construction; only one learner accepted it with the verb llorar. Two English subjects judged the sentence with viajar as grammatical in this construction. This shows that the French-speaking group is more consistent in rejecting the construction than the English-speaking group.

Table IV.27b. Individual results: number of errors per subject per group with each unergative verb

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Adj. clause errors	viajar	0	2	0
	llorar	0	1	1
	gritar	0	1	0
	hablar	0	1	0

4.7.4. Present Participle: -ente/-ante

The results in Table IV.28a show that the English L2 learners rejected nominals derived from unaccusative verbs. However, it is still not clear to them that not all these verbs produce present participles. The French-speaking learners are even less accurate

with their responses. The percentages are low for both groups; they do not even reach 70%. With 70% accuracy we may conclude that they observed that unaccusative verbs in present participle produce ungrammatical nominals. The control subjects were the only ones who successfully rejected the construction. Only one native speaker accepted 'muriente' as a correct nominal.

Table IV.28a. Percentage accuracy on unaccusative verbs rejected in the present participle construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
llegar	'arrive'	100	54	31
crecer	'grow'	100	62	38
morir	'die'	92	23	15
desaparecerer	'disappear'	100	8	31

Recall that native speakers and subjects from both experimental groups produced nominal variants for viajar ('viajador/viajero') and hablar ('hablador'). Such variants were produced only from unergative verbs and not unaccusative ones; that is to say that the native speakers and the L2 learners know that only one type of intransitive verb permits nominalization. Consequently, the percentages of accuracy with these two verbs are smaller due to the variants that were offered, as shown in Table IV.28b:

Table IV.28b. Percentage accuracy on unergative verbs in the present participle construction by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
viajar	'travel'	75	77	92
cantar	'sing'	100	92	100
dormir	'sleep'	100	92	92
hablar	'speak'	58	92	85

Table IV.29a represents the number of errors per subject with each lexical item. The number of errors is due to their choosing the ungrammatical option from the multiple-choice task. As can be seen, the errors are not significant except in the case of the two verbs morir and desaparecer, since almost half of the L2 learners chose the nominal over a correct version. It seems that the roles have been switched, since on the grammaticality judgment task it was the English group that produced the most errors with desaparecer and the French group with morir; in French the nominal mourante exists, and French L2 learners overgeneralized this knowledge to Spanish.

Table IV.29a. Individual results: number of errors per subject

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Unac. nominals	llegar	0	0	4
	crecer	0	2	4
	morir	0	6	1
	desaparecer	0	3	6

Table IV.29b shows errors due to erroneous selection of the ending. That instead of choosing -ente/-ante the L2 learners selected dor/dora (for example ‘*dormidora’ instead of ‘durmierte’; ‘*cantador’ instead of ‘cantante’).

Table IV.29b. Individual results: number of errors per subject

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Nominal errors	viajar	0	1	2
	cantar	0	5	2
	dormir	0	4	6
	hablar	0	0	1

4.7.5. Haber versus Ser

Group results showed that the two experimental groups accepted and produced the same amount of correct and incorrect answers with haber. It is important to consider which verbs were chosen for each particular language group.

The French L2 learners had to be aware of two things: that there is only one auxiliary and that we were not testing their knowledge of ser versus estar. The English L2 learners should have no problems, in principle, with experimental sentences using ser. They should, if L1 transfer is present, change ser to haber. The results in Table IV.30a indicate that both experimental groups had trouble in choosing haber. Many learners felt that the best option would be to use estar. As a result, the production of haber is not very accurate. English-speaking learners were most accurate in producing haber with llegar and crecer. In contrast, the French-speaking learners produced haber more often with crecer. The reason for using this impostor unaccusative diagnostic was to see if French-speaking learners would separate unaccusative verbs from unergative verbs according to their L1 knowledge. However, the learners felt that it was more important to produce correct answers with estar and they did not focus so much on the perfective auxiliary.

Table IV.30a. Percentage accuracy on correcting unaccusative verbs with ser by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
llegar	'arrive'	100	62	54
crecer	'grow'	100	62	69
morir	'die'	92	31	31
desaparecerer	'disappear'	100	38	54

It seems that our participants, once again, want to show their ability in using ser and estar. This is why the accuracy does not match the standards of the results from the native speakers.

Table IV.30b. Percentage accuracy on correcting unergative verbs with ser by lexical item

Grammaticality judgment task		Control (n = 12)	English (n = 13)	French (n = 13)
viajar	'travel'	100	77	92
cantar	'sing'	92	69	54
dormir	'sleep'	100	77	54
hablar	'speak'	100	77	77

The results from the two experimental groups in Table IV.31a almost match the results for the control subjects. There is L1 transfer on the part of the French L2 learners with the verb desaparecer. In their L1 grammar this verb takes the être auxiliary, and for this reason the French L2 learners selected estar as the correct option. The verb morir also selects être in French and consequently one French-speaking learner selected estar. The English-speaking learners apply the ser/estar criterion.

Table IV.31a. Individual results: number of errors per subject

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Ser errors	llegar	0	0	0
	crecer	0	0	0
	morir	0	1	1
	desaparecer	0	1	0

With unergative verbs, only the French-speaking subjects made mistakes, while the other two groups correctly selected the haber auxiliary (as seen in Table IV.31b). This impostor test helped us check if L2 French learners would transfer L1 knowledge onto

Spanish. To some extent they did with a couple of unaccusative verbs; however, the greater concern was to correctly choose between ser and estar.

Table IV.31b. Individual results: number of errors per subject

Multiple choice Task		Control (n = 12)	English (n = 13)	French (n = 13)
Ser errors	viajar	0	0	0
	cantar	0	0	0
	dormir	0	0	1
	hablar	0	0	1

4.8. ANOVA and Fisher's PLSD

An ANOVA on proportion of unaccusative and unergative verbs in the post-verbal NPs construction by L1 showed the L1 factor to be highly significant in the grammaticality judgment task ($F(2,35) = 22.921, p < .0001$) and not significant at all in the multiple-choice task ($F(2,35) = 1.539, p .2287$).

Figure 1. Post-verbal NPs – GJ task by L1

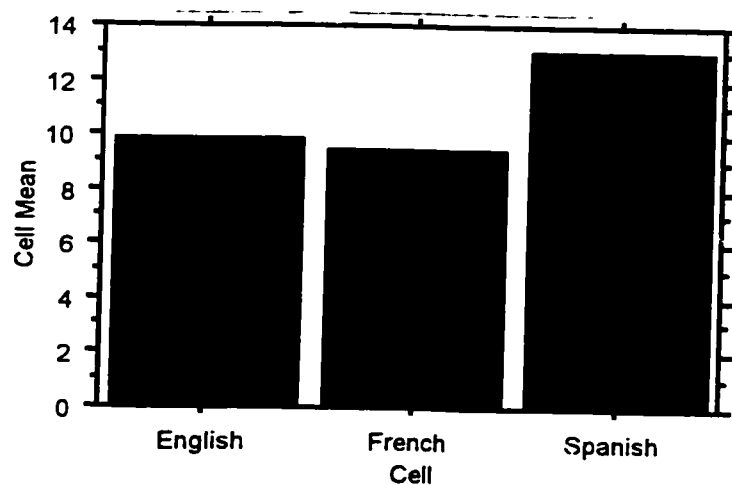
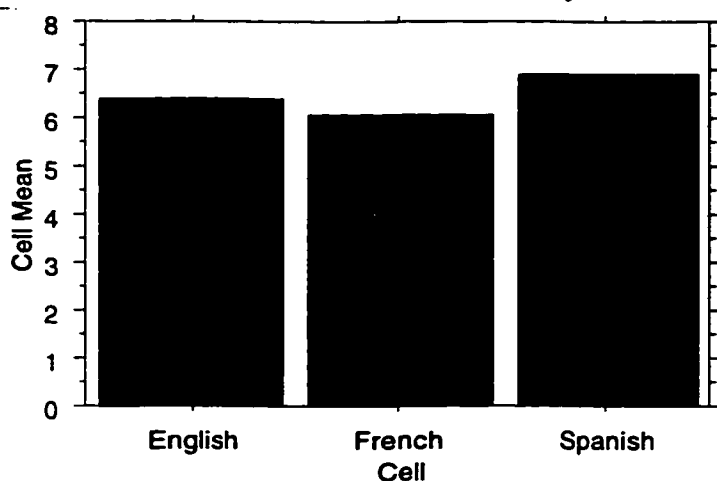


Figure 2. Post-verbal NPs – MC task by L1



Thus, as shown in the two figures L1 influence per se does not explain the differences between the French and the English group. The post-verbal NPs construction is not an aspect of French or English grammar. In turn, this might explain why there is no difference between these two language groups with respect to the native group.

The difference between the control group (Spanish) and the two non-native groups is highly statistically significant by a Fisher PLSD test in two cases, for both the grammaticality judgment task (figure 3) and the multiple-choice task (figure 4).

Figure 3. Post-verbal NPs – GJ task by level (Fisher's PLSD)

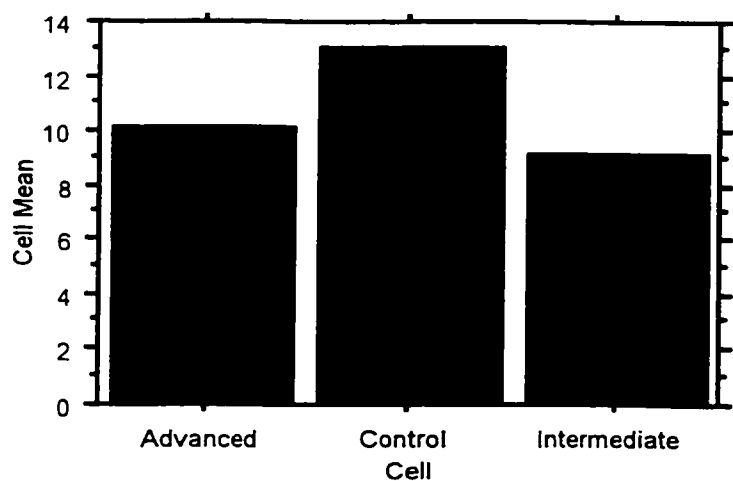
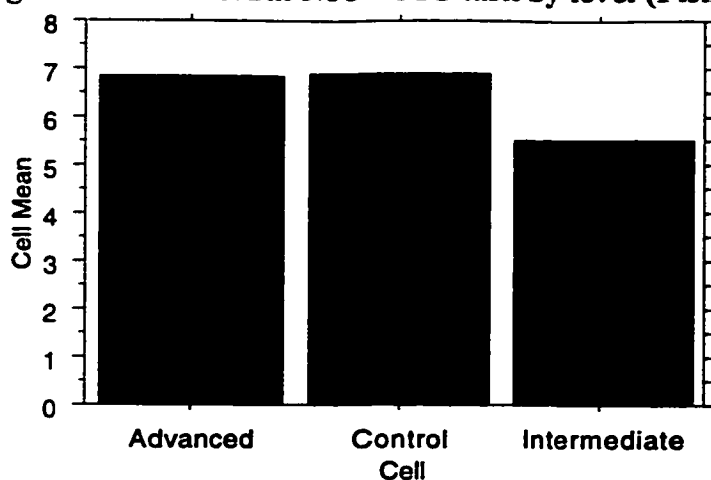


Figure 4. Post-verbal NPs – MC task by level (Fisher's PLSD)

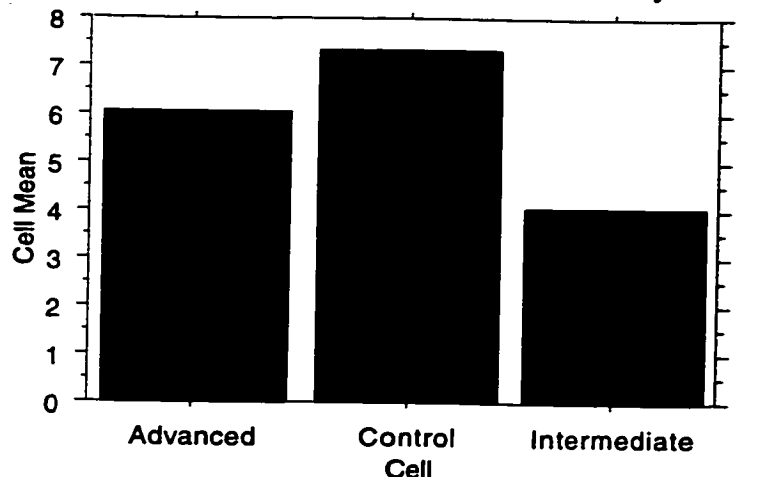


In the case of the grammaticality judgment task, the difference is significant between the advanced group and the control group ($p < .0001$) as well as the intermediate group and the control group ($p < .0001$). The difference between the advanced group and the intermediate group is not significant ($p .1044$), which could be due to the fact that the French and English groups are guessing. In the case of the multiple-choice task the difference is significant between the advanced group and the intermediate group ($p .0026$). However, as seen by the p value it is not highly significant.

In addition to this, we separated the two language groups (French and English) and only concentrated on the intermediate level in the two experimental tasks with the five conditions, as seen in figure 5. We discovered from the ANOVA and Fisher PLSD that the results are not significant at all between the intermediate French group and the intermediate English group. The same was discovered with the advanced French group and the advanced English group. Due to no significant difference between the French-speaking and English-speaking intermediate and advanced learners of Spanish, we conclude that L2 learners do not treat unaccusative verbs differently from unergative verbs, as has been done by the control group.

An ANOVA for the adverbial clause construction revealed significant difference by level in the multiple-choice task ($F(2,35) = 22.360, p < .0001$), as seen in figure 6:

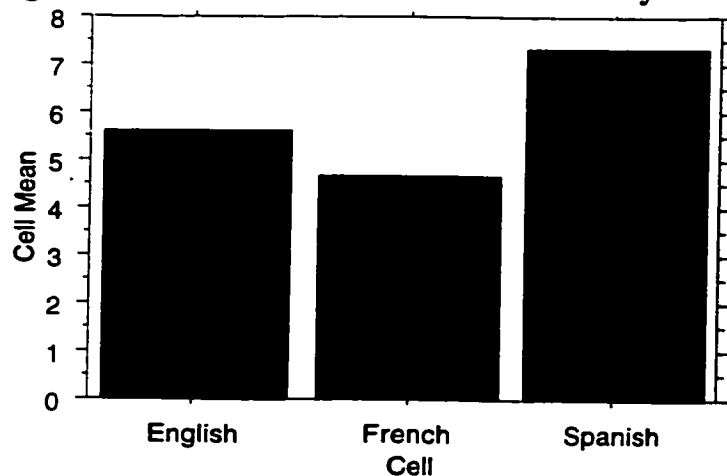
Figure 6. The adverbial clause – MC task by level



For the grammaticality judgment task the Fisher PLSD showed that the difference is significant between the advanced group and the intermediate group ($p .0279$) and the control group and the intermediate group ($p .0131$).

The Fisher PLSD results by L1 revealed a significant effect by L1 group in the multiple-choice (figure 7) task between French and Spanish ($p < .0001$) however only significant between English and Spanish ($p .0047$).

Figure 7. The adverbial clause – MC task by L1



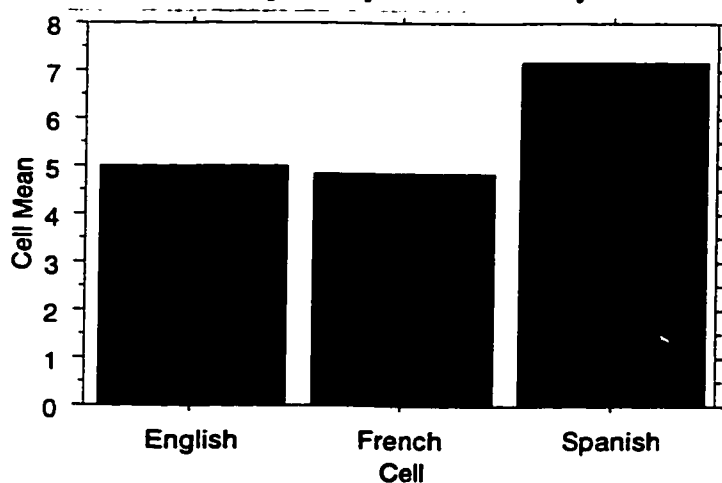
French L2 learners were aware of the adverbial construction due to their L1 and therefore were a lot more sensitive. That is not to say that this construction does not exist in

English, however its usage is less frequent. However, even though the adverbial construction exists in French the NP is placed before the past participle and not after the past participle as in Spanish. This explains why the difference between the French group and the Spanish group is highly significant.

The adjectival construction did not provide us with the information that we wanted to elicit, since this condition only separates a handful of unaccusative verbs from unergative verbs (see section 4.6.1.3.). The ANOVA and Fisher PLSD results are not significant, since this unaccusative diagnostic did not work as it was intended to. For this reason we are not providing any charts.

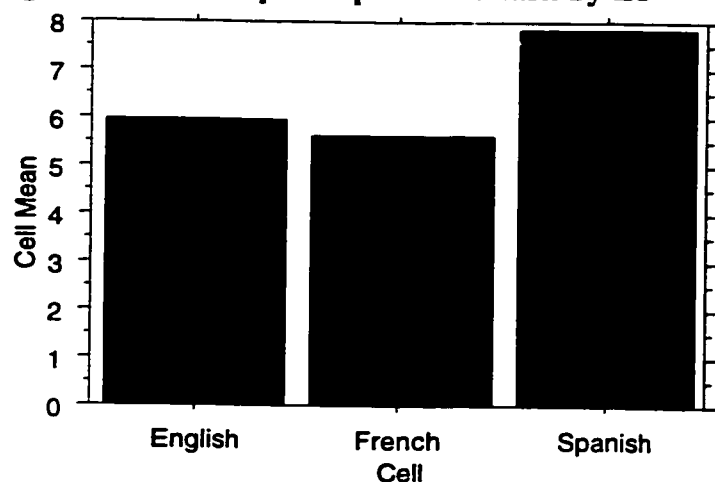
An ANOVA on the proportion of unaccusative verbs and unergative verbs in the present participle construction by L1 showed the L1 factor to be highly significant in the grammaticality judgment task ($F(2,35) = 26.534, p < .0001$), as can be inferred from figure 8:

Figure 8. Present participle –GJ task by L1



In the grammaticality judgment task and in the multiple-choice task by L1 the Fisher PLSD reveals significant difference between the Spanish and the French group and the Spanish and the English group, for both the p value is $< .0001$, as can be also inferred from figure 9:

Figure 9. Present participle – MC task by L1



As seen in figure 9, the English group is slightly better than the French group. The reason is that English also derives nominals only from unergative verbs (section 2.3.3.) while French permits the derivation from some unaccusative verbs, mourir, while English and Spanish do not.

When it comes to level, everything is highly significant. In both the grammaticality judgment task and in the multiple-choice task (figure 10 and 11) the ANOVA reveals that the p value is $<.0001$. The Fisher PLSD results show that there is significance between, in both tasks, the advanced group and the control group, the advanced group and the intermediate group and the control group and the intermediate group.

Figure 10. Present participle – GJ task by level

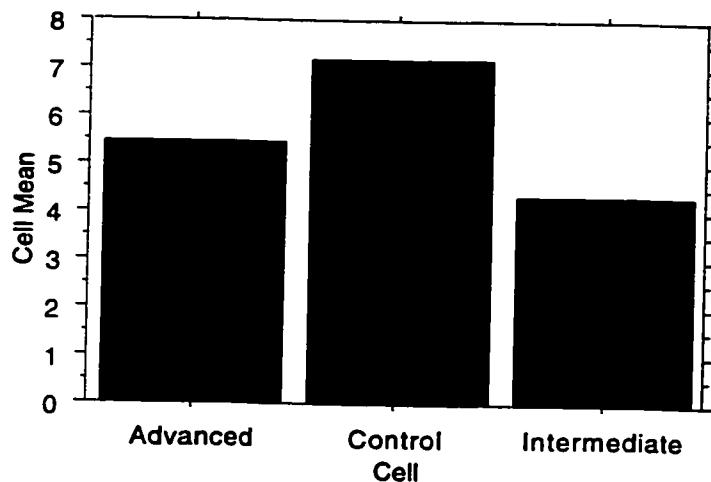
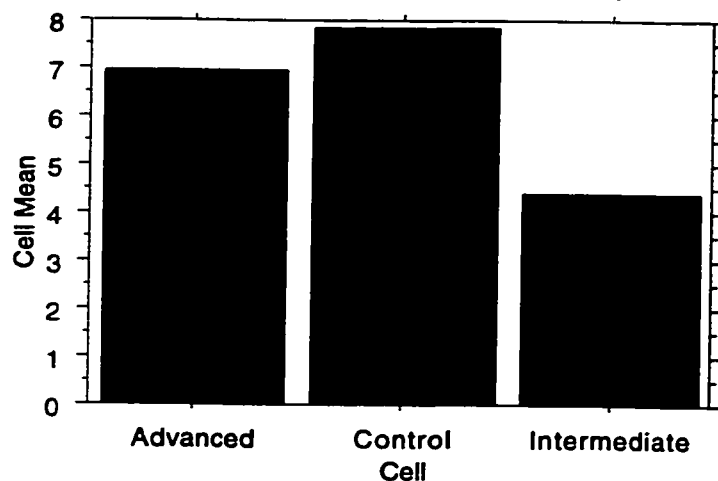


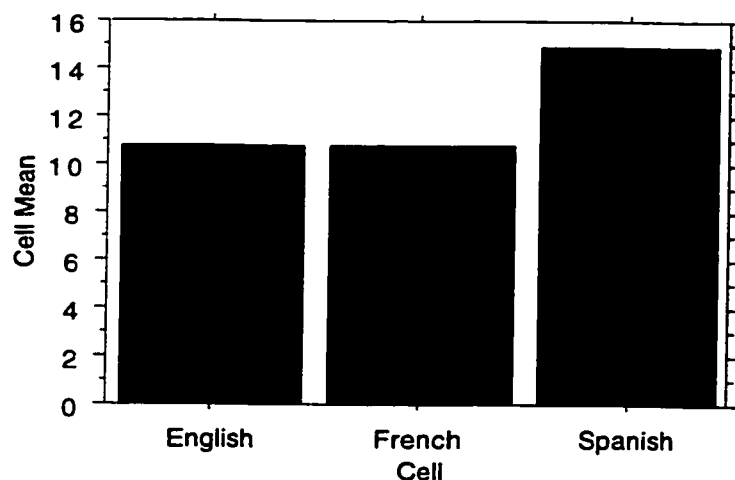
Figure 11. Present participle – MC task by level



The advanced learners are more accurate than the intermediate learners, they are aware that not all intransitive verbs allow derivation of nouns.

The last condition that we studied is the auxiliary selection. As has been explained in sections 4.6.1.5. and 4.6.2.5. our L2 learners were more concerned between the selection of ser and estar. For this reason the results are not what we expected them to be. In the multiple-choice task by L1 the ANOVA and Fisher PLDS results show no significant factors. However, in the grammaticality judgment task (figure 12) there is significant difference, $p < .0001$, between the English and Spanish group and the French and the Spanish group.

Figure 12. Ser versus Haber – GJ task by L1



In the grammaticality judgment task ($p .0019$) and in the multiple-choice task ($p .0004$) there is significant difference between the advanced group and the intermediate group. The advanced learners are aware that there exists another option in our two tasks to correct ungrammatical sentences, this option being selecting the auxiliary haber instead of estar.

4.9. Discussion of results

This experiment set out to investigate how English and French-speaking learners acquire semantically unaccusative and unergative verbs in Spanish, and whether they are aware that each of the conditions that we provided is only possible with one subclass of intransitive verbs.

The results show that L2 learners distinguished semantically and syntactically between core unaccusative and unergative verbs, although their accuracy was not perfect when compared with the native speakers. Overall, L2 learners were sensitive to the four conditions. They recognized that nominal derivation from unergative verbs is grammatical but that unaccusative verbs do not produce such nouns. They also knew that participial absolutes are correct when produced with unaccusative verbs but not with unergative verbs. They also noticed that there is free word inversion in Spanish when they dealt with post-verbal/pre-verbal NPs. The L2 learners and the control group also showed increased sensitivity to the acceptability of the adjectival clause construction with unaccusative verbs and the impostor condition that we included in the grammaticality judgment and multiple-choice tasks. The responses, however, were not error free, and inaccuracy at rejecting incorrect participial absolutes with pre-verbal NPs can be attributed to an interaction of L1 transfer and other language-specific knowledge.

Hypothesis (i) is rejected by group and individual results. We maintained that L1 does not play a role in the L2 acquisition of Spanish intransitive verbs. This was not confirmed since there was a difference between the two experimental groups at the production level.

In hypothesis (ii) we proposed that UG principles predict that L1 plays a role in L2 acquisition. The results indicate that French-speakers judged ungrammatical participial absolutes as correct due to L1 transfer. In French, this construction is correct with unaccusatives; however, the NP is placed pre-verbally and not post-verbally. English-speakers accepted such structures, though in smaller proportions. The reason for this may be that some of our English L2 learners speak French or have studied French in school. This indicates that the intuition of the French learners and those that have knowledge of this language is instantiated by L1 influence.

As predicted by hypothesis (iii), L2 learners cross-classified intransitive verbs. This was most prominent in the French-speaking learners with the present participle construction. The grammatical nouns in this test were derived from unergative verbs; however, many French learners accepted unaccusative nouns because they also exist in their L1.

Overall, the English-speaking and French-speaking learners behaved quite similarly and did not differ significantly on any of the five conditions in the grammaticality judgment task and the multiple-choice task. The two L2 groups generally performed like the Spanish control subjects, except in the adjectival construction condition where the two experimental groups were less accurate in rejecting ungrammatical sentences. According to Schroten (1986) and Bever and Sanz (1997), this condition separates intransitive verbs into two sub-classes. It was somewhat surprising that native speakers did not make the

unaccusative/unergative distinction as predicted by this condition. The native speakers rejected unaccusative and unergative verbs in this construction. Consequently, the unaccusative diagnostic does not clearly separate the two sub-classes of intransitive verbs. It seems to be the case that some, but not all, unaccusative verbs allow the adjectival clause construction; this however, does not make the adjectival construction a valid unaccusativity diagnostic for the unaccusative/ unergative distinction.

In addition, the results show overgeneralization of the four conditions. Specifically, to test if the L2 learners are really aware of the distinction we placed both types of verbs in all the conditions to see if L2 learners would pick out only the grammatical ones. However, L2 learners judged ungrammatical sentences as grammatical and those that were correct were changed, as was seen in Tables IV.3-21. On the other hand, individual results and the results by lexical item (Tables IV.22-31) show that not all learners feel the same way about intransitive verbs. The French-speaking learners, according to individual results, produced more grammatical answers for structures that exist in their L1 and because unaccusativity is a semantic and syntactic aspect of L1.

The impostor condition, which was the fifth one in our study, dealt with auxiliary selection. The experiment consisted in placing unaccusative and unergative verbs with haber and ser. In French, this kind of auxiliary selection distinguishes the two types. We wanted to see if the French speakers transferred this L1 characteristic. What we found was that there was no L1 transfer of this aspect of grammar into Spanish. Recall that in Spanish there are two verbs that mean to be: ser and estar. Consequently, when learners encountered ser in the grammaticality judgement task, they would change it to estar, even though most of the time the sentence they offered was ungrammatical. For the L2 learners it was more important to succeed in choosing between ser and estar than to think of haber

as an option. There was L1 transfer by French speakers for disappear and die, which are unaccusative in French and select être as the auxiliary. Thus, we must conclude that learners did transfer the auxiliary selection for some verbs to distinguish between the two types of intransitives.

Conclusion

This M. A. thesis has investigated the L2 acquisition of Spanish unaccusative and unergative verbs in the framework of generative grammar. Distinguishing between the two types of intransitive verbs, the study has argued that L2 learners of English and French generally observe deep unaccusativity in Spanish through the help of various unaccusative diagnostics that this language has. That is to say, that our L2 learners of Spanish recognized that the unaccusative subject is projected in the logical position as an internal argument whereas the unergative subject is projected in the subject position as an external argument.

In terms of our hypotheses, we should conclude that hypothesis (i) is rejected. We hypothesized that L1 does not play a role in the acquisition of Spanish intransitive verbs by English and French learners. As a result, there should not have been a difference between the two experimental groups. In addition there should not have been any L1 transfer into L2. Results reveal overgeneralization of the five conditions in both tasks. Namely, only one type of subclass was grammatical in a given condition, however, L2 learners would accept sentences that were ungrammatical because in their L1 this construction exists, as in the case of the adverbial clause construction and the present participles.

In addition, in the experimental study we have hypothesized that UG is involved in L2 acquisition. We proposed that L2 learners have access to UG and should in principle be able to identify common aspects of related verbs, because this knowledge is also available in their L1s (Schwartz and Sprouse, 1996). Experimental evidence presented in chapter 4 is consistent with what UG principles predict: that L1 plays a role in L2 acquisition. Results reveal that French speakers judged ungrammatical participial absolutes as correct due to L1 transfer. Namely, in French this construction is grammatical only with unaccusative verbs when the NP is placed pre-verbally as opposed to post-verbally. French learners, in general, would reject this construction with unergative verbs. This shows that the intuition of the French learners is instantiated by L1 influence. English learners that had a working knowledge of French would commit the same type of error with the adverbial construction. Namely, they would accept the adverbial construction with unaccusative verbs with a pre-verbal NP instead of a post-verbal NP. The hypothesis (ii) is supported by this data, where we claimed that L1 does play a role in the acquisition of Spanish intransitive verbs.

In hypothesis (iii) we stated that L2 learners should have little difficulty identifying the particular verb class due to transfer of idiosyncratic and structural aspects of verb meaning when lexical items coincide in L1 and L2. In fact, results show that the experimental groups generally performed like the Spanish controls with the five conditions in both tasks. However, we also hypothesized that L2 learners might cross classify Spanish intransitive verbs due to L1. In fact, our results revealed that the French learners overgeneralized the present participles construction. They would accept nouns derived from unaccusative verbs, since this aspect of grammar is present in French. English learners that have a working knowledge of French would overgeneralize the adverbial clause construction with a pre-verbal NP.

In L2-related studies it has been argued that unaccusativity in English is a semantic factor and not a syntactic factor (Sorace 1993a, Montrul 1999). Sorace (1993a) observed, in her study on the near-attainment of Italian by French speakers and English speakers, that only the L2 French learners consistently recognized syntactic factors, whereas the L2 English learners missed such signals. However, it is unjust to propose that unaccusativity in English is mainly semantic based on the fact that these learners did not recognize restructuring with obligatory auxiliary change. In English there is only one perfective auxiliary, whereas French has the same system of auxiliary, as does Italian. Therefore, it is expected from the L2 French learners to be more aware of such possibility as restructuring. In addition, this aspect of grammar was once present in French (Sorace 1993a). Because L2 English learners failed to recognize this option in Italian it does not mean that there do not exist other syntactic factors, i.e. X's way construction, -er

nominals, passive and perfective adjectives, etc. and that unaccusativity is a semantic phenomenon in English.

My experimental results revealed to us that L2 English learners of Spanish are better in recognizing grammatical sentences than the L2 French learners of Spanish with unaccusative and unergative verbs. The condition with the present participle, a morphological test, showed that the English-speaking group accepted the most correct nominals derived from unergative verbs. In their L1 a similar morphological test exists (section 2.3.3.) and therefore, through L1 transfer the English learners were able to differentiate between the grammatical and ungrammatical experimental sentences. It is not to say that the French-speaking group did not notice this subtle morphological test, however due to their L1 transfer these L2 learners produced less of such nominals. Therefore, unaccusativity in English should not be reflected as only a semantic factor, since this study has shown that L2 English learners of Spanish were sensitive to syntactic factors.

My study cannot be compared with that of Montrul (1999), because we tested different sub-classes of unaccusative verbs and I have not concentrated on the L2 acquisition of transitive verbs. The only aspect that both of our studies have in common is that our results and those of Montrul showed over-generalization due to L1 transfer.

Hirakawa (1999) investigated L2 learners of Japanese whose L1s are English and Chinese. In Hirakawa's study she showed that L2 learners of Japanese made the transitive subject/object distinction and thus made the unaccusative-unergative distinction. She

pointed out that if Uniformity of Theta Assignment Hypothesis (UTAH) was not a part of Universal Grammar (UG), then these L2 learners would not have made the unaccusative-nergative distinction. Our study revealed that L2 learners of Spanish also made the unaccusative-nergative distinction, even though we did not provide our subjects with transitive verbs. Their distinction was solely made from our four unaccusative diagnostics. On the other hand, Oshita (2000) investigated the reason for “passive” unaccusative errors in English with native speakers of Italian, Spanish, Japanese and Korean. He concludes by saying that there is no L1 transfer, because the languages in question do not have equivalent structures and that second language learners cannot transfer non-existent grammatical knowledge to the target language. The errors that he found in his study are attributed to over-generalization. Along the same lines comes the explanation for the errors with the auxiliary selection condition by the English-speaking learners of Spanish. There is no L1 transfer, since there is no auxiliary selection in his or her L1. Consequently, these learners found other means to correct ungrammatical sentences with the verb *estar*, which resulted in overgeneralization.

What I would like to suggest for further studies of unaccusative and unergative verbs, is that we use unaccusative diagnostics that clearly distinguish unaccusative verbs from unergative verbs. In addition, an analysis based on individual items as well as on individual subjects would also provide a better picture of the status of unaccusative and unergative verbs in the Spanish interlanguage.

The contribution of this thesis is twofold. First, chapter one and two provide a detailed analysis of the Unaccusative Hypothesis within two grammatical frameworks.

Chapter two consists of various unaccusative diagnostics that help distinguish between intransitive verbs in Spanish, English, Italian and French grammars as either unaccusative or unergative. This is useful reading for students and language teachers, since, to the best of our knowledge, this aspect of Spanish grammar is not dealt with in school material. Second, the two tests can be used by teachers to test their student's knowledge on this aspect of intransitivity but mainly to determine non-native knowledge of these Spanish constructions. Grammaticality versus usage criteria should also be taken into consideration here.

We are aware of the fact that many of the topics in this thesis need further elaboration and analysis. However, we hope that we have provided theoretical and experimental data, which shows the connections that may be established among several aspects of theoretical, descriptive and experimental work and that we have stimulated interest in second language acquisition.

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Appendix I
Questionnaire, English version

1. Name _____
2. Age group (please circle)
4-12 12-17 17-25 26-40 +40
3. Address and telephone _____
4. Mother's dominant language _____
Father's dominant language _____
5. Language(s) spoken at home as a child _____
6. Language(s) you spoke during the first 5 years of your life _____
7. Language(s) studied in:
Primary school _____
Secondary (high) school _____
University _____
Other institutions _____
8. What other languages do you presently speak? _____
9. What language do you feel most comfortable with at this time? _____
10. What languages do you speak:
-at home _____
-at school _____
-at work _____
-in your dreams _____
11. Why are you studying Spanish?
-B. A. in Spanish -professional reasons
-Double Major - other _____
-personal reasons
12. Contact with Spanish outside class room:
Present contact:
-approximate hours per week _____
-context (friends, clubs, family, etc.) _____
Previous contact:
-Have you ever visited a Spanish speaking country? Please circle: YES NO
-When? _____
-For how long? _____

Appendix 2

Grammaticality judgment task (GJ)

INSTRUCCIONES

Por favor, lea cada una de las frases cuidadosamente y luego:

- 1) Indique si le parece correcta. En todos los casos en que una frase no le parezca correcta, escriba la versión que usted utilizaría.
- 2) Traduzca cada una de las frases a su lengua materna.

Cuando haya terminado con una frase, siga con la siguiente y no vuelva a leer o ha hacer cambios en las anteriores. **MUCHAS GRACIAS** por su colaboración.

INSTRUCTIONS

Please, read carefully the following sentences and then:

- 1) Indicate if the sentence is correct. Each time that a sentence does not seem to be correct to you, write the version that you would use.
- 2) Translate each sentence to your mother tongue.

Once you have finished with a sentence, follow with the next one and do not return (to read or to make changes) to the previous ones. **THANK YOU VERY MUCH** for your collaboration.

INSTRUCTIONS

S.V.P., lisez les phrases suivantes avec attention et:

- 1) Indiquez si la phrase est correcte. Dans tous les cas où la phrase ne vous paraît pas correcte, écrivez la version que vous utiliseriez.
- 2) Traduisez toutes les phrases à votre langue maternelle.

Quand vous avez terminé une phrase, passez à la suivante et ne retournez pas aux phrases antérieures ni pour consultation ni pour y effectuer des changements. **MERCI BEAUCOUP** pour votre collaboration.

POR EJEMPLO / FOR EXAMPLE / POUR EXEMPLE:

(i) Elena sabe no que ha tenido una A en el último examen.

a) [¿es correcta?] No, no es correcta

b) [yo usaría] Elena no sabe que ha tenido una A en el último examen.

c) [traducción] Elena does not know that she got an A on her last exam.

Elena ne sait pas qu'elle a eu une A dans son dernier examen.

(ii) Hemos tenido un otoño muy bonito.

a) [¿es correcta?] Sí, es correcta.

b) [yo usaría] -----

c) [traducción] We had a very nice fall.

Nous avons eu un très jolie automne.

Grammaticality judgment task

1. Viajado mi hermano a Noruega, tendremos que aprender noruego si queremos ir a verle.

2. Pablo es viajado a Ottawa para visitarme.

3. El niño, gritado como un loco, despertó a toda la familia.

4. El momento ha llegado de deciros que vamos a hacer un viaje a la luna.

5. A las personas que siempre se van antes de terminar la clase, vamos a darles el título de desaparecientes.

6. Han crecido hierbas exóticas en mi jardín.

7. Muchas flores han crecido aunque no hacía sol.

8. Llorado el niño, vino su madre.

9. Marta ha hablado conmigo hace un rato.

10. Pedro siempre llega el primero a la oficina. Es el llegante más temprano de todo el edificio.

11. La primavera, llegada cuando aún no la esperábamos, fue bienvenida.

12. Patricia es dormido la siesta, porque esta noche trabajará hasta muy tarde.

13. Tengo un compañero que no se calla nunca, le llamamos el hablante olímpico.

14. El pájaro muerto, tiramos la jaula.

15. La mala hierba, crecida por todo el jardín, parece que va a invadirnos.

16. Juan ha viajado por África para hablar de los problemas del SIDA.

17. Falta café para el desayuno de mañana.

18. Ese niño ya tiene 15 años. Ha llegado la hora de tratarle como a un adulto.

19. Viajan muchas parejas a Roma después de la boda.

20. Muchos niños desaparecieron el año pasado en los Estados Unidos.

21. En la familia Dion todos cantan, pero la verdadera cantante es Céline Dion.

22. Como ha llovido mucho este verano el maíz es crecido mucho.

23. El profesor llegado, comenzó la clase.

24. La carretera, llovida de norte a sur, era muy peligrosa.

25. Roberto ha dormido en casa de los abuelos.

26. El hijo de mi vecino, ido durante la noche, fue encontrado por la mañana.

27. Llegado el ministro, comenzó la reunión.

28. María habla con mucho entusiasmo de su viaje a Cuba.

29. Tengo que cortar la hierba creciente en el jardín.

30. Me parece que cantaba esa niña canciones de cuna para su hermanito.

31. Juan, hablo todo lo que quería, colgó el teléfono.

32. Plácido Domingo es cantado en los grandes festivales de ópera.

33. Habla Juan de su novia, Rocío, como si no hubiera otra mujer en el mundo.

34. Desaparecido el satélite, ya no tenía sentido seguir con ese programa espacial.

35. Yo pensaba que era Jorge, pero el viajante de la familia es Miguel.

36. El diamante desaparecido, mi madre llamó a la policía.

37. Margarita, llorada desconsoladamente, parecía un bebé.

38. Muchos canadienses viajan a Florida para escaparse del frío del invierno.

39. Es llegado el momento de decirle a Juanito que vamos a hacer un viaje al espacio.

40. Pepita siempre dice que está enferma. Su hermano la llama la muriente de la casa.

41. Mi gato es muerto hace un rato. Se ha caído por la ventana.

42. Ha desaparecido esa planta exótica a causa de la contaminación.

43. Gritada la niña, el padre le compró el juguete.

44. Ana ha crecido mucho este año, ya no parece una niña.

45. Pedro, viajado a las diez, nos llamó desde Málaga a las seis.

46. A mi hermana le gusta mucho el cuento de la bella durmiente.

47. Mi abuelo ha muerto de cáncer de pulmón.

48. Esa actriz es hablada de su problema con las drogas.

49. Duerme mucha gente en los aviones para que el viaje resulte más corto.

50. Crecida la parra, empezamos a coger las uvas para hacer vino.

51. Cuando era niña mi madre cantaba muchas canciones románticas.

52. Ha llegado el momento de despedirnos, mañana salgo para Marte.

53. Muerto Kennedy, los americanos se sintieron huérfanos.

54. Pavarotti no ha cantado mucho este año.

55. Dinero falta para comprar el pase del autobús.

56. Desaparecieron muchas personas en los años de Pinochet.

57. Los árboles crecidos, se hizo necesario cortar muchas ramas.

58. En China el oso panda es desaparecido casi totalmente.

59. Pepita duerme mucho cuando va de viaje.

60. Hablado el presidente, la gente se irritó.

Appendix 3
Multiple-choice task (MC)

INSTRUCCIONES

Por favor, lea cada una de las frases cuidadosamente y luego:

- 1) Escoja entre las tres opciones la que usted utilizaría. Escriba la respuesta en la HOJA DE RESPUESTAS.

Cuando haya terminado con una frase, siga con la siguiente y no vuelva a leer o ha hacer cambios en las anteriores. **MUCHAS GRACIAS** por su colaboración.

INSTRUCTIONS

Please, read carefully the following sentences and then:

- 1) Choose from three options the one that you would use. Write your answer on the ANSWER SHEET (HOJA DE RESPUESTAS).

Once you have finished with a sentence, follow with the next one and do not return (to read or to make changes) to the previous ones. **THANK YOU VERY MUCH** for your collaboration.

INSTRUCTIONS

S.V.P., lisez les phrases suivantes attentivement et:

- 1) Choisissez la réponse appropriée parmi les possibilités. Écrivez votre réponse sur la feuille de réponse (HOJA DE RESPUESTAS).

Quand vous avez terminé une phrase, passez à la suivante et ne retournez pas aux phrases antérieures ni pour consultation ni pour y effectuer des changements. **MERCI BEAUCOUP** pour votre collaboration.

Multiple-choice task (MC)

HOJA DE RESPUESTAS

- | | | | | | | | |
|------------|----------|----------|----------|------------|----------|----------|----------|
| 1. | a | b | c | 20. | a | b | c |
| 2. | a | b | c | 21. | a | b | c |
| 3. | a | b | c | 22. | a | b | c |
| 4. | a | b | c | 23. | a | b | c |
| 5. | a | b | c | 24. | a | b | c |
| 6. | a | b | c | 25. | a | b | c |
| 7. | a | b | c | 26. | a | b | c |
| 8. | a | b | c | 27. | a | b | c |
| 9. | a | b | c | 28. | a | b | c |
| 10. | a | b | c | 29. | a | b | c |
| 11. | a | b | c | 30. | a | b | c |
| 12. | a | b | c | 31. | a | b | c |
| 13. | a | b | c | 32. | a | b | c |
| 14. | a | b | c | 33. | a | b | c |
| 15. | a | b | c | 34. | a | b | c |
| 16. | a | b | c | 35. | a | b | c |
| 17. | a | b | c | 36. | a | b | c |
| 18. | a | b | c | 37. | a | b | c |
| 19. | a | b | c | 38. | a | b | c |
| | | | | 39. | a | b | c |

Multiple-choice task (MC)

1. En los años 40 _____ a Canadá.
 - (a) llegaron muchos inmigrantes italianos
 - (b) muchos inmigrantes italianos llegar
 - (c) muchos inmigrantes italianos llegaron

2. _____ a Barcelona, tendrá que acostumbrarse a lo diferente que es de Ottawa.
 - (a) Cuando Pablo viaje
 - (b) Pablo viajado
 - (c) Viajado Pablo

3. Ese niño, _____, valora mucho la amistad.
 - (a) crecido sin hermanos
 - (b) que ha crecido sin hermanos
 - (c) estando crecido

4. María Callas era una _____ de ópera.
 - (a) cantadora
 - (b) canta
 - (c) cantante

5. Elena no _____ nunca en un hotel de cinco estrellas.
 - (a) ha durmiendo
 - (b) es dormida
 - (c) ha durmido

6. _____ de noche para descansar.
 - (a) Viaja mucha gente
 - (b) Mucha gente viajan
 - (c) Mucha gente viaja

7. _____, iremos a patinar.
 - (a) El invierno llegando
 - (b) Llegado el invierno
 - (c) Haya llegado el invierno

8. Pablo, _____ a Roma, se perdió en el aeropuerto.

- (a) viajado
- (b) al viajado
- (c) cuando viajó

9. Tengo que arrancar la mala hierba _____ en mi jardín.

- (a) creciendo
- (b) creciente
- (c) que ha crecido

10. El pez _____ hace dos días. Le dimos demasiado de comer.

- (a) es muerto
- (b) es muerta
- (c) ha muerto

11. Este verano _____.

- (a) muchas plantas crecían en tu jardín
- (b) han crecido muchas plantas en tu jardín
- (c) muchas plantas han crecido en tu jardín

12. El día de Navidad, Santa Claus es el _____.

- (a) viajante en los cuentos de niños
- (b) viajador en los cuentos de niños
- (c) que viajan los cuentos de niños

13. _____, le dieron de comer.

- (a) Al ver que el bebé gritando
- (b) Gritado el bebé
- (c) Al ver que el bebé gritaba

14. Mi gato, _____ durante el día, regresa por la noche para que le dé de comer.

- (a) que ido
- (b) que se va
- (c) iba

15. Elton John _____ muchísimas veces en Nueva York.

- (a) es cantado
- (b) ha cantada
- (c) ha cantado

16. _____ en la ducha.

- (a) Canta mi hermana
- (b) Mi hermana cantada
- (c) Mi hermana canta

17. _____, nos pusimos a hacer mermelada.

- (a) Las ciruelas crecidas
- (b) Crecidas las ciruelas
- (c) Creciendo las ciruelas

18. Andrea, _____ por mucho tiempo, ahora parece tranquila.

- (a) llorando
- (b) que llorada
- (c) que ha llorado

19. El tren Talgo, siempre llega a tiempo. Es _____.

- (a) el llegador más puntual
- (b) el que llega más puntual
- (c) el llegante puntual

20. Hay mucha vigilancia en las calles porque _____ el Primer Ministro.

- (a) está desaparecido
- (b) ha desaparecido
- (c) es desaparecido

21. _____ leche pare el café.

- (a) Leche falta
- (b) Faltan leche
- (c) Falta leche

22. _____, se durmió.
- (a) Llorado durante dos horas
 - (b) Después de haber llorando durante dos horas
 - (c) Después de haber llorado durante dos horas
23. Los senderos del bosque, _____ sin parar, parecen un mar de lodo.
- (a) donde llovidos
 - (b) donde ha llovido
 - (c) que lloviendo
24. En mi familia el _____ más elocuente es mi hermano.
- (a) hablado
 - (b) hablar
 - (c) hablante
25. _____ el avión hace una hora pero todavía no han salido los pasajeros.
- (a) Ha llegado
 - (b) Es llegado
 - (c) Es llegada
26. Cuando _____ de sus hijos, siempre se emociona.
- (a) Juan hablan
 - (b) habla Juan
 - (c) Juan habla
27. _____, empezaron a dividir su fortuna.
- (a) Sinatra muerto
 - (b) Muerto Sinatra
 - (c) Sinatra estado muerto
28. El bebé, _____ durante todo el viaje, ahora duerme tranquilamente.
- (a) que gritado
 - (b) que ha gritado
 - (c) gritando

29. La naturaleza cada día está más erosionada. Hoy he oído que el oso panda es una de las especies _____ de los bosques chinos.
- (a) desaparecientes
 - (b) que desapareciendo
 - (c) que ha desaparecido
30. Marta _____ muchas veces a Moscú.
- (a) es viajado
 - (b) ha viajado
 - (c) ha viajada
31. El año pasado _____ porque hacía frío.
- (a) muchos pájaros en verano desaparecieron
 - (b) son desaparecidos muchos pájaros de verano
 - (c) desaparecieron muchos pájaros de verano
32. _____, los empleados decidieron volver al trabajo.
- (a) Hablado el representante sindical
 - (b) Cuando habló el representante sindical
 - (c) El representante sindical hablar
33. Pepe, _____ por mucho tiempo, por fin se calló para escuchar a los demás.
- (a) que hablado
 - (b) hablando
 - (c) que había hablado
34. Les anunciamos que el número de los _____ ya llega a doscientos.
- (a) murientes
 - (b) que muertos
 - (c) que han muerto
35. Este verano no _____ muchas fresas.
- (a) es crecidos
 - (b) han crecido
 - (c) son crecidas

36. _____ en su casita que está en el jardín.

- (a) El perro dorme
- (b) Duerme el perro
- (c) El perro duerme

37. _____, podremos ver el azul del cielo.

- (a) Las nubes desaparecidas
- (b) Desaparecidas las nubes
- (c) Desapareciendo las nubes

38. A las niñas les gusta el cuento de La bella _____ y el de Caperucita roja.

- (a) dormida
- (b) durmiente
- (c) dormidora

39. Yo no _____ con Pepe porque no tenía su teléfono.

- (a) ha hablado
- (b) soy hablado
- (c) he hablado