Chapter 2

CONTRAST BETWEEN ASPECTUAL SYSTEMS IN L2 LEARNING AND ITS REPERCUSSIONS

2.1. Introduction

The purpose of this article is to contribute to a better understanding of why it is that Dutch speakers learning Spanish make specific mistakes in the domain of temporality and aspectuality. By understanding how the intuitions of L1 speakers over grammatical aspect work, we may also add to the comprehension of the problematic issues behind its learning.

Temporal expressions in natural language have begun to receive attention as an area of research in adult second language acquisition. An increasing interest in aspect has developed in SLA research. The acquisition of a temporal system is slow and gradual, and as such, it is worth investigating (Bardovi-Harlig 2000). Many researchers have pursued the study of the acquisition of tense-aspect morphology in the interlanguage of L2 learners. There have been two basic lines of thought: a functional/pragmatic/context oriented research (among others, Salaberry 2000) and sentential level research. Discourse analysis is extremely important to be able to grasp the functional needs of languages as far as their aspectual intricacy is concerned; however, without a clear picture of how aspect works at the sentential level, there is no possibility to lay hold of the essence of temporal and aspectual systems. A framework for this type of research is the one provided by the Aspect Hypothesis, as stated in Andersen and Shirai (1994: 133):

“Second language learners will initially be influenced by the inherent semantic aspect of verbs or predicates in the acquisition of tense and aspect markers associated with or affixed to these verbs”

The Aspect Hypothesis is based on evidence obtained from English native speakers learning Spanish. This hypothesis has been generalized to learners with other Germanic first languages, such as Dutch (García & van Putte 1988, Martínez Baztán 1994), which means that the opposition between perfective and imperfective constitutes one of the major difficulties encountered, not only by English speakers, but also by native speakers of Germanic languages engaged in learning Spanish as a second language. There have been a number of studies which analysis of data proves that Dutch learners of Spanish encounter the same problems postulated by the Aspect Hypothesis:

García & van Putte (1988) compared the selection of past tense aspectual morphology between 15 Spanish native speakers and 20 L1 Dutch teachers of Spanish. Their results corroborate those found in Andersen study. García & van Putte (1988: 277) concluded that:
Martínez Baztán (1994) analysed 30 written compositions written by 15 Dutch advanced learners of Spanish. One of his aims was to investigate until which point the sequence proposed by Andersen (the Aspect Hypothesis) guided the learners’ use of the Spanish past tenses. Martínez-Baztán (1994: 44) concluded:

“...we believe that a certain influence of the acquisition order of the aspectual system between perfective and imperfective described by Andersen can be demonstrated.”

Taking into account the results of these two studies, we may conclude that the acquisition of Spanish past tenses by Dutch learners can also be described using the Aspect Hypothesis.

This article aims to contribute to a better understanding of why it is that Dutch speakers learning Spanish make specific mistakes in the domain of temporality and aspectuality. By understanding how the L2 native speakers’ intuitions over grammatical aspect work, we may also add to the comprehension of the problematic issues behind its learning. To be able to understand the learner’s complications, we have to provide a common theoretical basis upon which it is possible to compare the Spanish and Dutch aspectual systems. This study has been carried out on the basis of a theoretical framework in which the role of the verb in the acquisition of tense and aspect has received a lot of attention, specifically with respect to the question of which sort of aspectual information is provided by the verb and which sort of aspectual information is given at higher levels of sentential structure such as the VP-level or the S-level, where the verb and its arguments form semantic complexes. Thus, one of the purposes of this paper is to contribute to the insight that a more precise use of the term ‘verb’ in this line of research is necessary. In that sense, this approach intends to reduce the terminological confusion that seems to haunt the literature on aspect. In particular, in the formulation of the Aspect Hypothesis, the phrase ‘inherent aspect of verbs or predicates’ cannot be maintained without running into problems. We will improve on the Aspect Hypothesis by applying the proper aspectual tools so as to be able to make an appropriate analysis of the data collected in the L1 intuitions reporting experiment conducted in the present paper.

2.2. Aspectual theory

In this section, a review of aspect theories and approaches is given. We will start with a description of the predicational aspect approach, and will defend it against the lexical aspect approach. In addition, some machinery will be presented, the Plus-Principle, and its compositionally application explained. Moreover, a comparison

1 Own translation
between different views on aspectual classes will be given. This section will end up with an overview of forms and functions of grammatical aspect in Spanish.

2.2.1. Lexical aspect versus predicational aspect

One of the problems inherited from the past is the use of grammatical terms that date from a period in which linguistic theory did not have enough tools to distinguish properly between levels of phrase structure. A case in point is the unfortunate use of the term ‘lexical aspect’. Traditional Slavic aspectology distinguished—and many in this tradition still distinguish—between lexical aspect and grammatical aspect. The opposition between imperfective and perfective aspect in Slavic linguistics is generally considered to be grammatical because it is said to express an opposition between presenting an eventuality either as uncompleted (or repeated) or as completed. These notions pertain, so to say, to the eventuality as described by the whole sentence. In the Russian pair of sentences in (1):

(1a) Ivan pisal pismo
    Ivan write+ PAST+IMPERFECTIVE letter
    ‘Ivan wrote a letter’
(1b) Ivan napisal pismo
    Ivan write+ PAST+PERFECTIVE letter
    ‘Ivan wrote a letter’

the imperfective sentence (1a) is said to present Ivan's writing as seen from the inside, whereas (1b) presents Ivan's writing as having been completed. The notion ‘grammatical’ in grammatical aspect has to do with the fact that the eventuality as a whole is positioned in a certain way, either as going on or as completed.

To distinguish the sentences in (1) from the sentences in (2),

(2a) Ivan nenavidel otca
    Ivan hate+ PAST+IMPERFECTIVE father
    ‘Ivan hated his father’
(2b) Ivan voznenavidel otca
    Ivan hate+ PAST+PERFECTIVE father
    ‘Ivan hated his father’

aspectologists considered it necessary to also distinguish lexical aspect: it is evident that a verb like ‘hate’ has different temporal properties from verbs like ‘write’. After all, the imperfective aspect of (1a) concerns an eventuality that inherently expresses some sort of boundedness: that is why (1a) expresses the potential terminativity of the event in question. After the situation described in (1a) the letter may have come to a close. This is not the case in (2): to hate someone does not imply anything about the possible termination of the hate-relation existing between Ivan and his father.
This is why (2b), with the perfective prefix, expresses “start to hate” rather than “ends to hate”.

The problem we are facing is that the notion of lexical aspect viewed in this way got firmly rooted in Slavic aspectology before linguistic theory developed syntactic tools to be able to speak more properly about phrase structure. On a closer view, there is nothing lexical about the difference between (1) and (2). That is, the inherent boundedness of the eventuality expressed in (1) and the unboundedness of the state described in (2) for which the term lexical aspect was invented, has nothing to do with the difference between the verbs ‘write’ and ‘hate’. This can be easily shown by (3).

(3) Ivan pisal stixi
    Ivan write+PAST+IMPERFECTIVE verses/poems
    ‘Ivan wrote poems’

This sentence does not pertain to something bounded in the middle of which the imperfective aspect would position a point of view. As pointed out in Verkuyl (1972), the choice of a plural noun (phrase) *stixi* (‘poems’) has an effect on the inherent boundedness expressed by the predication as a whole. In other words, the verb ‘write’ itself is neutral with respect to the boundedness expressed in (1) and the unboundedness in (3).

Two consequences are important. Firstly, it should be clear that the notion of lexical aspect is misleading in the sense that it is the predication rather than the verb itself, which expresses the boundedness of the sort discussed above. So we have to get at the phrase level to experience inherent boundedness.

Verkuyl (1972, 1993) has shown that, for Germanic languages, what has been called lexical aspect, is in fact compositionally formed. In Verkuyl (1993), aspectuality at the VP level and aspectuality at the sentential (S) level are distinguished

To evade a possible misunderstanding: we will use the term VP to denote a combination of a verb and its complement and the term S as the domain where NP and VP form a tenseless sentence, whereas S’ will be used to denote a sentence having tense.

In the present paper, however, we will fully accept the difference between the two sorts of aspect and assume that the notion of grammatical aspect is necessary as a sort of lubricant between tense and the tenseless predication, which is the input to tense. In addition, predicational aspect yields a tenseless semantic object on which tense is going to operate. In other words, we will analyse Germanic sentences like (4a) as in (4b), where the part between the brackets is the tenseless predication which, by the application of Past, gets located in a temporal position with respect to the speaker or to some reference point already introduced in the discourse.

(4a) Alex wrote a letter

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2 So, the perfective prefix takes the first “slice” of some interval and by that the predication itself denotes a completed eventuality ‘begin to hate’, which is actualised in real time.

3 To evade a possible misunderstanding: we will use the term VP to denote a combination of a verb and its complement and the term S as the domain where NP and VP form a tenseless sentence, whereas S’ will be used to denote a sentence having tense.
CONTRAST AND REPERCUSSIONS

(4b) PAST (Alex write a letter)

For Spanish, the situation is more complex because in sentence (5a) the period of time in the past, where the bounded eventuality of ['Alex write a letter'] is presented as completed; whereas the grammatical aspect in sentence (5b) presents the bounded eventuality either as ongoing or as a repeated/habitual event.

(5a) Alex escribió una novela
Alex write+PAST+PERFECTIVE a novel
‘Alex wrote a novel’

(5b) Alex escribía una novela
Alex write+PAST+IMPERFECTIVE a novel
‘Alex wrote/used to write/was writing a novel’

Evidently, one cannot live here with the representation in (4b), because Past is not sufficient, so we should have something like (6).

(6) PAST (ASP)(Alex write a letter)

Here one has a justification for distinguishing between predicational aspect and grammatical aspect: the former yields a predication of some sort (in this case expressing inherent boundedness), the latter operates on this predication so as to yield a proper input for the application of tense. The underlying reason is that tense on its own should be neutral as to the nature of the predication on which it operates, so the aspectual meaning differences between (5a) and (5b) should be found in some extra operator mediating between tense and predicational aspect.

2.2.3. Compositionality and the Plus-Principle

As observed, the notion of predicational aspect is of an atemporal nature. This means that the information expressed by the tenseless predication in (6) is a complex semantic object put together by an operation that amalgamates the meaning of the verb and its arguments before tense is applied.

Following the compositional procedure adopted in Verkuyl (1993), the terminativity of the tenseless ['Alex write a letter'] is obtained in two steps. Firstly, the verb and its internal argument are combined into a VP; secondly the VP and the external argument are put together in an S. To account for the non-stative nature of verbs like 'write', 'eat', 'hit', 'grow', etc. as opposed to stative verbs like ‘hate’, ‘love’, ‘want’, ‘hang’, a verbal semantic feature called [+ADDTO] is assumed as the contribution of the verb to the aspectuality at phrase level. For stative verbs, the value of the feature is negative. The contribution of the NP to aspectual information can be accounted for in terms of an NP-feature [+SQA], where SQA stands for ‘Specified Quantity of A’, ‘A’ being the denotation of the Noun of the NP. It expresses the quantification and delimitation of the arguments. Thus, NPs like ‘a letter’, ‘three sandwiches’, ‘some whisky’, ‘five acres of land’, etc. are labelled
[+SQA], whereas NPs like ‘sandwiches’ (as in ‘She buttered sandwiches’), ‘whisky’ (as in ‘She drank whisky’), etc. are [-SQA].

Only a combination of a [+ADDTO]-verb with [+SQA]-arguments yields a compositionally formed terminative aspect. All other cases are durative. This is what Verkuyl (1999) calls the Plus-Principle; it refers to the requirement that all aspectual atoms ([ADDTO] and [SQA]) involved are plus values. Terminativity involves a compositional amalgamation of lexical semantic information given by the verb and structural information given by the arguments. As can be seen from the tenseless examples in (7), terminativity shows up as the marked case.

<table>
<thead>
<tr>
<th>(7a) Alex write a letter</th>
<th>Aspektual value</th>
<th>Aspektual class</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+SQA] [+ADDTO] [+SQA]</td>
<td>=&gt; terminative</td>
<td>Event</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(7b) Alex write letters</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[+SQA] [+ADDTO] [-SQA]</td>
<td>=&gt; durative</td>
<td>Process</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(7c) Somebody write a letter</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[-SQA] [+ADDTO] [+SQA]</td>
<td>=&gt; durative</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>(7d) Alex expect a letter</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[+SQA] [-ADDTO] [+SQA]</td>
<td>=&gt; durative</td>
<td>State</td>
</tr>
</tbody>
</table>

This is interesting in view of the fact that L2 learners may have the option of learning marked cases earlier than unmarked cases, or the other way around.

Another property of the algebra used to yield complex predicational information is that it predicts three aspectual classes on the basis of the two features [+SQA] and [+ADDTO], as shown in (7).

2.2.4. Aspektual classes

In the aspektual literature, there is a disturbing tendency to mix up the three levels distinguished above: (a) the Verb level; (b) the VP level; and (c) the S (= the full predicational) level. The tendency is disturbing because the idea of a compositional approach to aspect seems to conflict with the need to distinguish verb classes. We will restrict ourselves to the discussion of the two main partitions:

| (8a) the tripartition State - Process - Event |
| (8b) the quadripartition State-Activity-Accomplishment-Achievement |

The first partition tends to be made at the predicational level. It can be found in Comrie (1976), Bach (1981). Verkuyl (1993) construed the three classes from the two semantic notions [+ADDTO] and [+SQA]. As to the second classification in (8b) proposed by Vendler (1957), it is more difficult to see what people have in mind when they speak about verb classes. Many of them know that this might be a sloppy

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4 The machinery is more complex than discussed here. A sentence like ‘Nobody wrote a letter’ would be a state, because negation operates on the cumulative ADDTO-feature of the verb (Verkuyl 1993). We will come back to the issue of aspectual classes and their explanatory value below.
way of speaking so that in fact they distinguish four types of predications, but there are also those who really think that they speak about aspectual properties of the verb itself when they speak about an Accomplishment verb like ‘buy’ or an Achievement verb like ‘reach’. In the latter case, there is some real sloppiness in the use of the notion of verb, because ‘reach’ cannot occur without a complement. This makes it difficult to believe that people really have in mind when they distinguish among four verb types.

We will not confront the readers with some theoretical discord. In fact, we will turn this sort of disagreement into a fruitful strategy. After all, the notion of lexical item may be dubious in the sense that it is not really the verb itself that we learn. We cannot evade learning a verb in terms of its arguments, notably its internal argument. We may learn it so as L2 learners: ‘to write a book’, ‘to cross the street’, ‘to mail a letter’, ‘to kiss the bride’, etc. Note that we learn prototypically in this way, in the sense that we hardly encounter phrases like ‘to write nothing’, ‘to cross canals’, ‘to mail letters’, ‘to kiss people’, etc. What we may in fact learn are full terminative VPs with specific aspectual properties expressing boundedness at the VP-level.

In order to be able to discuss literature in which the Vendler classification is adopted in terms of the tripartition, let us rephrase the quadripartition in (8b) as (8c):

(8c) State-Process-Event1,2

The simplification in (8c) is possible because Processes and Activities are the same sort of class with different nomenclature. The difference between the two classifications can boil down to the question of whether or not Achievements can be distinguished properly from Accomplishments. It is only when an aspectually relevant distinction between Vendler's Accomplishments and Achievements can be made that the distinction could make sense (cf. Verkuyl 1993: Chapter 2 for discussion).

The properties of the tripartition are given in Table 1.

<table>
<thead>
<tr>
<th>Predication</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event</td>
<td>Bounded, discrete, discernible, as a unit, countable</td>
</tr>
<tr>
<td>Process</td>
<td>Unbounded, continuous, not discernible as a separate unit, non-countable</td>
</tr>
<tr>
<td>State</td>
<td>Omnipresent</td>
</tr>
</tbody>
</table>

What follows from the position that Vendler classes are not verb classes in the strict sense of that word, is that we have to rephrase the Aspect Hypothesis as formulated by Andersen (1989). This will be done later on in the paper.
2.2.5. Grammatical aspect in Spanish

Grammatical aspect as distinguished from predicational aspect cannot be seen apart from the application of the tense operator. This is shown in languages such as French and Spanish where certain tense forms also express information that concerns the presentation of an eventuality as completed as going on or as part of a habit or generality. Grammatical aspect does not say anything about the duration or the inherent boundedness of the event or situation itself. Rather it locates the temporal domain that hosts the eventuality in a past such that the domain is considered as closed off at a certain point of reference (completed) or in a past leaving open the possibility that the domain has not yet been closed off at a certain point of reference (uncompleted). Note that in this way of expressing ourselves a distinction in levels plays a role: the completedness concerns the temporal domain, not the predication itself5. Let us clarify this point with the help of (9).

(9a) PAST+IMPERFECTIVE (Ramón drink a beer) = Ramón bebía una cerveza
(9b) PAST+PERFECTIVE (Ramón drink a beer) = Ramón bebió una cerveza

We will say that the perfective aspect concerns the temporal domain D in which the situation is presented in the past and included as closed off from the present. The imperfective aspect also places the eventuality in the past but presents that part of the temporal domain D in which it is located as a half open interval. The imperfective aspect leaves things open. It is a way to underinform listeners with respect to what happened with the predication. Note that by adopting this position, we explain why imperfective and perfective meanings are insensitive to the nature of a predication.

(9c) PAST+IMPERFECTIVE (Ramón drink beer) = Ramón bebía cerveza
(9d) PAST+PERFECTIVE (Ramón drink beer) = Ramón bebió cerveza

The difference between (9c) and (9d) is the way the eventuality (in this case a process) is reported: in (9d) the process is put in the domain D in a subpart of it that is closed off and so we know from it that Ramón was involved in an unbounded eventuality that was completed, in (9c) Ramón might still be drinking beer because of the closed-open nature of the interval in the domain D.6

The idea of grammatical aspect operating at a higher level than predicational aspect gives enough room to explain the use of certain tenses in Spanish. In (10), an

5 So we use the term ‘(un)-bounded’ for semantic objects denoted by the tenseless predication itself and the term ‘(in) completed’ so as to pertain to the way in which the temporal domain is presented in which the eventuality is located.

6 A domain represented as an interval may be open, ( ), or closed [ ], or closed-open [ ) or open-closed ( ]. In our case, we assume that the left side of the domain is closed. In (9c) the eventuality described by the predication is either used as background, or as having habitual or repetitive reading or as expressing progressivity. The sentence as it is given in (9c) does not specify which one of the three readings it has; therefore, all interpretations are valid.
unbounded eventuality is located in a closed temporal domain and in (11), a bounded eventuality is located in an open temporal domain:

(10) comí porquerías todo el día
    I eat+PAST+PERFECTIVE junk food all the day
    ‘I ate junk food the whole day’
    Unbounded eventuality + closed time domain

(11) leía el periódico los domingos
    I read+PAST+IMPERFECTIVE the newspaper the Sundays
    ‘I read the newspaper on Sundays’
    Bounded eventuality + uncompleted time domain

A language acquisition implication behind the postulation of two independent aspectual levels in Spanish points at the fact that it is the presence of (un-) boundedness at the predicational level and (in-) completeness at the grammatical level that creates the confusion the L2 learner has and not the existence or non-existence of an end point in the predication. In general, tense is not interested in the nature of the predication itself. Therefore, grammatical aspect should also not be interested in the nature of the predication, because it belongs essentially to the tense part of the information. Grammatical aspect provides partial or complete access to the predication irrespective of whether this is terminative or durative.

Until now, aspectual phenomena have been described as (intra-) sentential, as most theories on aspect do. Everything that needs to be known before deciding whether a sentence is terminative or durative seems to reside in the (tenseless) VP and/or the S (if the external argument is also taken into account). The terminativity of a sentence seems to find all its requirements in the semantic relationship of the verb and its arguments and therefore the scope of this notion is restricted to a sort of kernel predication covering the semantic unit formed by the verb and its arguments. In addition, we have seen, thanks to the Spanish examples, that it is the form of the verb that informs us of its grammatical aspect.

However, there are arguments to the effect that information found outside the basic predication may be crucial for deciding whether a sentence is perfective or imperfective. Given the stable nature of the basic predication, language offers many possibilities to operate on this semantic object. In this connection, (Verkuyl 1993, 1999) makes a distinction between inner and outer aspectuality. Verkuyl’s notion of inner aspectuality concerns the aspectual information yielded by the composition of the information contributed by the verb and its arguments. Modifications of the basic predication take place in the domain of outer aspectuality. This raises the question whether grammatical aspect is an inner or outer aspectual operation.

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7 In Chapter 1, the boundedness at the predicational level is also considered a completion level. Boundedness and completion at the predicational level should be understood as being the same phenomenon.

8 Hinrichs (1986) opened up the discourse perspective on aspectuality, and Kamp & Reyle (1993) developed a discourse-oriented analysis of tense and aspect. They added two aspectual operators to their temporal system: PROG (progressive) and PERF (perfect), for English progressive and perfect sentences, respectively. Nevertheless, they do not approach all the other nuances of aspect found in either Romance or Slavic languages, which are known to have a richer aspectual system than any Germanic language.
Let us consider the Spanish sentences (12) - (15), where it is shown how grammatical and predicational aspect can be taken apart.

(12) Nuria comió un trozo de tarta
Nuria eat+PAST+PERFECTIVE a piece of cake => perfective
 [+SQA][+ADDTO][+SQA] => terminative
‘Nuria ate a piece of cake’

(13) Nuria comió tarta
Nuria eat+PAST+PERFECTIVE cake => perfective
 [+SQA][+ADDTO][-SQA] => durative
‘Nuria ate cake’

(14) Nuria comía un trozo de tarta
Nuria eat+PAST+IMPERFECTIVE a piece of cake => imperfective
 [+SQA][+ADDTO][+SQA] => terminative
‘Nuria was eating/ate a piece of cake’

(15) Nuria comía tarta
Nuria eat+PAST+IMPERFECTIVE cake => imperfective
 [+SQA][+ADDTO][-SQA] => durative
‘Nuria was eating/ate cake’

Sentence (12) has a perfective marker and the predication it affects is terminative. Sentence (13), however, has a perfective marker but the predication it affects is durative. Sentence (14) has an imperfective marker and the predication it affects is terminative, and finally, sentence (15) has an imperfective marker and the predication it affects is durative. All four sentences are beyond any doubt grammatical.

The examples (12) - (15) are grammatical. However, there is a difference in meaning between (12) and (14) on the one hand and (13) and (15) on the other hand. This difference in meaning relies on the context in which the sentences are produced. This fact points out the relevance of distinguishing outer (contextual) sentential information when deciding which aspectual meaning the sentence has. Languages seem to deal with this extra aspectual information in different ways. They cut the pie differently. English (and Dutch for that matter) and Spanish go the same way in establishing predicational aspect but they differ at the level of grammatical aspect.

In the remainder of the article, we shall deal with empirical material the analysis of which may contribute to this discussion. It is necessary to discuss the Aspect Hypothesis because this has specific claims about the acquisition of grammatical aspect. Its claims are based on a different aspectual theory than the one we are presenting in this article. The repercussions brought up by the different theoretical approaches will affect the way the learning process is described and explained.
2.3. Acquisition of aspect in L2

In the next section, the Aspect Hypothesis will be described and empirical research supporting it will be presented. According to the theory advocated in section 2.2., the Aspect Hypothesis needs to be rephrased. This rephrasing is given in section 2.3.2.

2.3.1. The Aspect Hypothesis

The Aspect Hypothesis was first named Defective Aspect Hypothesis (Andersen 1986). It stated that in beginning stages of language acquisition only inherent aspectual distinctions were encoded by verbal morphology, not tense or grammatical aspect. Andersen (1986) studied the acquisition of Spanish as a second language by two English-speaking children. To classify his data, Andersen used the four-way division of Vendler (1957): states, activities, accomplishments and achievements. Andersen presented a developmental sequence for encoding tense and aspect with past inflections, containing 9 stages (see Table 2). Many researchers have used this developmental sequence as their point of departure in order to study the acquisition of Romance past tenses.

Table 2: Stages in the acquisition of perfective/imperfective forms in Spanish as L2 (—: only present forms; I: only imperfective forms; P: only perfective forms; IP: both im/perfective forms appear)

<table>
<thead>
<tr>
<th>Stage/type</th>
<th>States</th>
<th>Activities</th>
<th>Accomplishments</th>
<th>Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>——</td>
<td>——</td>
<td>——</td>
<td>——</td>
</tr>
<tr>
<td>2/3</td>
<td>——</td>
<td>——</td>
<td>——</td>
<td>-P</td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>——</td>
<td>——</td>
<td>-P</td>
</tr>
<tr>
<td>5</td>
<td>I</td>
<td>I</td>
<td>-P</td>
<td>-P</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>I</td>
<td>IP</td>
<td>-P</td>
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<tr>
<td>7</td>
<td>I</td>
<td>IP</td>
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<td>-P</td>
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<tr>
<td>8</td>
<td>IP</td>
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<td>9</td>
<td>IP</td>
<td>IP</td>
<td>IP</td>
<td>IP</td>
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</tbody>
</table>

The Aspect Hypothesis makes the following claims:

1. Perfective forms are first used with achievements, then with accomplishments, spreading later to activities and, finally, states.
2. Imperfective forms appear later than perfective forms and they appear first with states, spreading later to activities, accomplishments and, finally, achievements.

The Aspect Hypothesis makes two more claims, which will not be included, as they are not considered to be relevant for the purposes of this paper.

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9 The Aspect Hypothesis makes two more claims, which will not be included, as they are not considered to be relevant for the purposes of this paper.
There have been many empirical studies based on the Aspect Hypothesis in second language acquisition. These studies, some of which have been summarized below, have as their target language a Romance language, as it is in these cases that a clear division can be made with respect to the use of the temporal-aspectual morphological marking in an L2.

According to Andersen, in the first relevant stages, the perfective form is only found with achievements and the imperfective form only with states. Later on, the perfective is also found with those verbs referring to accomplishments and the imperfective with activities. That is, telic verbs (those referring to achievements and accomplishments) are used only with perfective forms and atelic verbs (those referring to states and activities) only with imperfective forms. The first atelic verbs that are found with perfective are activities; the first telic verbs found with the imperfective are accomplishments. Finally, both forms are found in the four types of verbs.

Based on this study, Andersen (1989) posited four stages in the acquisition of perfective past: from achievements, to accomplishments, to activities and finally to states and four stages in the acquisition of the imperfective past: from states to activities, to accomplishments and finally to achievements. The main effect of the influence of aspectual class seems to be that, when verbal morphology emerges in the interlanguage of the learner, it is in complementary distribution to the type of aspectual class the verb belongs to.

The Prototype Theory makes some generalizations from the effects pointed out by the Aspect Hypothesis. According to the Prototype Theory (Shirai & Andersen 1995, Li & Shirai 2000), a category has its best exemplars, the prototypes, which share many characteristic features with members of the category; development starts with the prototype of the category, then extends to items similar to the prototype, and finally to the least prototypical members. The following example clarifies their claim: the prototype of a category (say “ongoing”) seems to contain a durative predication. The category “ongoing” and its prototype “durative” share the feature [-bounded]. When the category “ongoing” is being learnt, development will start with its prototype, that is, with durative predications, and finally it will cover also the least prototypical members of the category, the non-durative predications, which could then be considered as peripheral members of the category, because although they do not share the feature [-bounded] with the category, they are still part of it.

Several studies have found evidence for Andersen’s hypothesized stages of the acquisition of both the perfective and the imperfective past. Hasbún (1995) and Bergström (1995) studied the written narratives of 80 learners of Spanish and 117 learners of French, respectively. Both groups were enrolled in university language courses. Both studies attested Andersen’s associations of perfective past with events and imperfective past with states and the sequence of stages of both forms. In Bergström study, the perfective form stages are less robust; there are fewer stages, missing the base form stage, which probably means that these learners’ proficiency is higher than that of the Spanish learners of Hasbún study.
In Cadierno (2000), a study of advanced Danish learners of Spanish, data are presented that can be understood as belonging to what Andersen calls stage 9: the spreading of the imperfective to include its use with achievements. Even when the imperfective has spread to terminative cases and the perfective to durative cases, the rates of appropriate use are higher with the prototypical uses than the non-prototypical uses. That is, L2 learners make fewer errors with the perfective when the predication is terminative and fewer errors with the imperfective when the predication is durative.

Studies on non-Romance languages also show similar results. The tenses involved in studies examining Germanic languages are usually the simple past versus the present perfect. Bardovi-Harlig (1998) found a clear progression of past tense use in English as L2 from achievements to accomplishments to activities in the data from oral narratives.

The Aspect Hypothesis postulates that the aspectual nature of the verb will influence L2 learners acquiring tense and aspect markers. It gives a description of the aspectual systems of the learner’s interlanguage, but it does not explain why the learners make errors in the use of both prototypical and non-prototypical cases. The Congruence Principle (Andersen 1993) tries to explain the errors by saying that learners will use tense-aspect morphemes whose meanings are most similar to those of the verbs. However, until we understand what makes the meaning of the tense-aspect morphemes comparable to the intrinsic meaning of the verb, there will not be any clear explanation as to why the acquisition of an aspectual system is difficult. Moreover, as it has been shown, the intrinsic meaning of the verb is not the carrier of all the aspectual information. Without taking into account the aspectual semantics of the arguments, the Aspect Hypothesis will not shed any relevant light into what actually takes place in the learning process.

2.3.2. The Aspect Hypothesis rephrased

To rephrase the Aspect Hypothesis can be done in an interesting way, because two questions arise: (a) is the notion of Event (irrespective of a difference between Achievements and Accomplishments) marked as compared with Process and State and is this visible in language learning? (b) is it possible to empirically show that there is a clear difference between verb- (phrase)s that on Vendler’s classification would belong to the achievements and those that would be labelled accomplishments?

It is here where the tripartition State-Process-Event, described in the section of this paper on aspectual classes, comes into the picture. Why should we use a quadripartition when everything that needs to be accounted for is covered by a tripartition? The quadripartition is based on allegedly verbal meanings, the tripartition, on predicational meanings. Andersen's distribution of aspectual classes is primarily based on verb meanings. However, as we have already shown, it is the predicate that belongs to an aspectual class, not the verb on its own. The aspectual division given by the Aspect Hypothesis may not be valid. The learner’s use of aspectual information may to focus on whether the predicational information is continuous or discrete, and, according to the Aspect Hypothesis, choosing for the
discrete options. As we have already seen, events are discrete; therefore, the marked option is also discrete. Events (thus both achievements and accomplishments) are discernable as units, therefore first learnt as discrete units. This may be the reason why the Aspect Hypothesis proposes that the event prototypes are the first ones to be learnt.

If the learners in Andersen's study first acquire, in his terms, achievements, it is because, as events, they are learnt as discrete units. The problem arises now when trying to define both accomplishments and achievements no longer as an aspectual characteristic of the verb but of the predication. At the predicational level, both achievements and accomplishments can be defined as pertaining to discrete units. To differentiate between accomplishments and achievements, the latter have been often described as point events. However, all events do contain some sort of duration; which is as a total discrete and bounded, in opposition to the duration of processes, which is unbounded and expressing continuity. Of course, there are different ways of expressing duration, depending on the meaning of the verb (compare ‘discover’ to ‘eat’, for example, because the nature of discovering something differs from the nature of eating something), but the distinction between accomplishments and achievements does not add anything relevant in terms of eventhood. They are both events and that is it. We can eat a complete lunch in the form of a pill, which makes it a shorter event than discovering the body of a dinosaur.

Until now we have only rephrased the Aspect Hypothesis as far as predicational aspect is concerned. However, learning a Romance aspectual system implies learning two different aspectual levels: the predicational and the grammatical level. The tripartition of aspectual classes gets now combined with the perfective-imperfective distinction. Table 3 shows what happens with the properties of the aspectual classes when combined with each of the grammatical aspect options:

Table 3  Grammatical and predicational aspect combined

<table>
<thead>
<tr>
<th>Class</th>
<th>Inflection</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Perfective</td>
<td>The predication is closed off in a past complete time domain</td>
</tr>
<tr>
<td></td>
<td>Imperfective</td>
<td>It focuses on the nature of the state as an omnipresent unit</td>
</tr>
<tr>
<td>Process</td>
<td>Perfective</td>
<td>It locates the unbounded predication into a countable, discrete, complete temporal domain</td>
</tr>
<tr>
<td></td>
<td>Imperfective</td>
<td>It focuses on the nature of the activity or process</td>
</tr>
<tr>
<td>Event</td>
<td>Perfective</td>
<td>The bounded predication is located in a temporal complete domain</td>
</tr>
<tr>
<td></td>
<td>Imperfective</td>
<td>It locates a part of a bounded temporal event in a time span that either gets repeated, or marks the internal process of the event progressively or episodically</td>
</tr>
</tbody>
</table>
If this is the case, the Aspect Hypothesis only points out the already obvious, which is that there are some aspectual meanings that will be clustered at the beginning of the acquisition and that the verbal morphology encoding some of these meanings will spread to less prototypical cases. Thus, it does not mean that the learner is making mistakes; it means that the learner has to broaden a fixed aspectual system to cover all the possible aspectual combinations the target language has to offer.

The fixed aspectual system that the learner seems to start with is given in Table 4:

<table>
<thead>
<tr>
<th>Stages</th>
<th>Predicational Aspect</th>
<th>Grammatical Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>Bounded</td>
<td>Complete</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>Unbounded</td>
<td>Incomplete</td>
</tr>
</tbody>
</table>

The first grammatical form predicted to appear is then the perfective form, but only with events. The unbounded predications located at a complete time domain (states and processes with perfective verbal inflection) will not appear yet. The second grammatical form to appear will be the imperfective form, but only with processes and states. All those bounded predications located at an incomplete time domain (events with imperfective verbal inflection) will be added to the system later.

The learning of a specific aspectual system in first language may interfere with the learning of a different system in second language. This may be caused by the fact that grammatical features involved in the aspectual composition of a language do not necessarily match those used in another language. Spanish seems to need outer aspectual context (everything outside the aspectual meaning given by the combination of verb, arguments and verbal inflection) to make a choice between the two past tenses (as shown by (12) - (15)). Dutch, like English, does not have two simple past tenses encoding perfective and imperfective meanings. Therefore, the combination of information found inside and outside the boundaries of the sentence need not be taken into account. This may also have acquisitional implications: outer sentential information may give us clues as to why the aspectual systems of languages with grammatical aspect are in general very difficult to learn in a second language. It may be expected that when Dutch L2 learners of Spanish encounter the L2 aspectual system, they are not going to look further than what predicational aspect offers them and therefore they will simplify the Spanish system, covering the only aspectual completion options their own language would.

Learning the aspectual paradigm in a L2 is complicated. Understanding how aspect works may shed light into, firstly how aspect is acquired, and secondly which errors are more likely to appear in the first stages of L2 development.

If we separate predicational aspect and grammatical aspect, as presented in the previous section, we may have a system pointing out in the right direction. Each of the two levels can be characterized as expressing information about discrete or continuous temporal units: at the predicational level in the form of the opposition (un-) boundedness, (or completion at the predicational level) at the grammatical
level in the form of the opposition (in-) completeness (or completion at the grammatical aspect level). The problem for L2 learners seems to arise when the sense of discreteness of both levels does not match. The independency of the levels is hard to understand because the same type of features seems to characterize them both.

Our aspectual theory expects no interferences between the two aspectual levels (grammatical and predicational levels) in adult L1 grammar, but explains why these interferences appear in SLA. Therefore, it is necessary to check how these theoretical expectations function in L1 grammar before dealing with the intricacies of L2 learning. If the expectation of non-interference is fulfilled, then L1 speakers of Spanish will say that any past sentence, no matter how the predicational level is being characterized (as bounded or unbounded), can accept both grammatical aspect paradigms. Moreover, if it is true that the predicational level offers no aspectual information that may interfere with the choice of past tense for L1 speakers, this means that the important information the learner has to interiorise when learning an aspectual system in an L2 is outside the boundaries of the predicational level. Only when the learners interiorise the outer aspectual information as relevant for their choice of verbal form, they will be able to properly differentiate between the two simple pasts of any Romance language.

2.4. Methodology

In this section, the methodology used for the empirical study is described.

2.4.1. Participants

Thirty-eight native speakers of Spanish gave their intuitions about the acceptability of 30 Spanish simple past sentences (see Appendix I).

2.4.2. Hypotheses, Materials and Procedure

The following hypotheses have been constructed:

a) The predicational aspect of each sentence (whether the predication is either a state, a process or an event) will not influence the choice of grammatical aspect form, that is, the boundedness (or completion) of the predication will not necessarily imply the completeness of the temporal domain in which it is located.

b) The choice of grammatical aspectual form will be made according to the extra aspectual information, which does not involve predicational aspect (that is, all the aspectual modifiers that may also be given in the sentence, such as adverbials):
   - Sentences including extra information pointing to some sort of limitation of time will only be considered acceptable with the perfective form.
- Sentences including extra information pointing to some sort of repetitive, habitual or progressive meaning will only be considered acceptable with the imperfective form.
- Sentences with no extra aspectual information will be considered equally acceptable with both perfective and imperfective forms.

The subjects are given the list of sentences and they are asked whether they consider the sentences acceptable. Sentences are grouped in pairs of equivalent sentences, the only difference between them being the aspectual form of the verb. The different pairs of sentences are randomly ordered in the questionnaire. Some pairs of sentences include no extra aspectual information apart from that given by the verb while others add outer aspectual information about the limitation, the repetition, or the progression of the action. Three groups of pairs are then presented:

Type A: Sentences with limitation of time (complete time domain)

(16) Ayer por la mañana Ulpiano compró el periódico (A3)
Yesterday during the morning Ulpiano buy+PAST+PERFECTIVE the newspaper
‘Yesterday morning Ulpiano bought the newspaper’

(17) Ayer por la mañana Ramón compraba una revista (A4)
Yesterday during the morning Ramón buy+PAST+IMPERFECTIVE a magazine
‘Yesterday morning Ramón bought a magazine’

Type B: Sentences with repetitive, habitual or progressive meaning (incomplete or repeated time domain)

(18) Los barcos llegaban cada media hora (B9)
The ships arrive+PAST+IMPERFECTIVE every half hour
‘The ships arrived every half an hour’

(19) Los trenes llegaron cada media hora (B10)
The trains arrive+PAST+PERFECTIVE every half hour
‘The trains arrived every half an hour’

Type C: Sentences with no extra aspectual information (no extra specified time domain)

(20) Por la noche contábamos cuentos (C5)
During the night tell+1PRIPL+PAST+IMPERFECTIVE stories
‘At nighttime we told stories’

(21) Por la noche contamos cuentos (C6)
During the night tell+1PRIPL+PAST+PERFECTIVE stories
‘At nighttime we told stories’

A3, A4, B9 etc. stand for the same sentences as occurring in the table and later on in Appendix I.
Out of the 30 sentences, there are 18 durative (14 processes, four states) and 12 terminative; which means that nine durative predications have a perfective marker and six terminative predications have an imperfective marker. These are the cases where interference of the un/boundedness (or completion) of the predication could affect the choice of verbal morphology marking grammatical aspect.

2.5. Results

The judgements given by the informants were analysed. The results are summarised in Tables 5 and 6.

Table 5 presents the proportions of acceptance of the pairs of sentences with perfective and imperfective forms. Four options were found:

a) None of the sentences in the pair is acceptable;
b) Only one of the sentences in the pair is acceptable (either the perfective or the imperfective);
c) Both sentences in the pair are acceptable.

In order to assess the percentage of accepted sentences according to their predicational aspect, the pairs of sentences where divided in three groups: events, processes and states.

Table 5  Choice of verb form according to the predicational aspect

<table>
<thead>
<tr>
<th>Predicational aspect</th>
<th>None</th>
<th>Perfective</th>
<th>Imperfective</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminative: Events</td>
<td>7.9%</td>
<td>25%</td>
<td>26.3%</td>
<td>40.8%</td>
</tr>
<tr>
<td>Durative: Processes</td>
<td>7.1%</td>
<td>33.8%</td>
<td>33.8%</td>
<td>25.2%</td>
</tr>
<tr>
<td>States</td>
<td>5.8%</td>
<td>23.3%</td>
<td>32.3%</td>
<td>38.5%</td>
</tr>
</tbody>
</table>

Table 5 shows that the judgement of the speakers is randomly distributed. It indicates that the predicational aspect does not contribute to the choice of grammatical aspect. When the predication is an event there is a slight preference to choose both forms as correct, when the predication is a process, there is a slight preference for either one of the forms; and when it is a state, again, the preference lies on choosing both forms as acceptable.

A chi square test was performed on the observed frequencies of perfective and imperfective acceptable sentences. The results are the following:
CONTRAST AND REPERCUSSIONS

Table 6  Percentages of acceptability

<table>
<thead>
<tr>
<th>SENTENCES</th>
<th>MEAN</th>
<th>MEAN PER TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PERF.</td>
<td>IMPERF.</td>
</tr>
<tr>
<td></td>
<td>PERF.</td>
<td>IMPERF.</td>
</tr>
<tr>
<td>A1/A2</td>
<td>94.7%</td>
<td>42.1%</td>
</tr>
<tr>
<td>A3/A4</td>
<td>97.4%</td>
<td>10.5%</td>
</tr>
<tr>
<td>A5/A6</td>
<td>94.7%</td>
<td>52.6%</td>
</tr>
<tr>
<td></td>
<td>96.3%</td>
<td>31.6%</td>
</tr>
<tr>
<td>A7/A8</td>
<td>97.4%</td>
<td>28.9%</td>
</tr>
<tr>
<td>A9/A10</td>
<td>97.4%</td>
<td>23.7%</td>
</tr>
<tr>
<td>B1/B2</td>
<td>52.6%</td>
<td>76.3%</td>
</tr>
<tr>
<td>B3/B4</td>
<td>36.8%</td>
<td>97.4%</td>
</tr>
<tr>
<td>B5/B6</td>
<td>18.4%</td>
<td>81.6%</td>
</tr>
<tr>
<td>B7/B8</td>
<td>15.8%</td>
<td>84.2%</td>
</tr>
<tr>
<td></td>
<td>30%</td>
<td>87.2%</td>
</tr>
<tr>
<td>B9/B10</td>
<td>47.4%</td>
<td>92.1%</td>
</tr>
<tr>
<td>B11/B12</td>
<td>39.5%</td>
<td>78.9%</td>
</tr>
<tr>
<td>B13/B14</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>C1/C2</td>
<td>84.5%</td>
<td>89.5%</td>
</tr>
<tr>
<td>C3/C4</td>
<td>97.4%</td>
<td>60.5%</td>
</tr>
<tr>
<td></td>
<td>90.5%</td>
<td>80.7%</td>
</tr>
<tr>
<td>C5/C6</td>
<td>89.5%</td>
<td>92.1%</td>
</tr>
</tbody>
</table>

Table 6 shows the following results:

a) In sentences with a sentential marking of limitation of time (the A-type), the perfective is the preferred form (96.3% vs. 31.6%). This difference is significant ($\chi^2=12.76; df=1; p<0.001$).
b) In sentences with a habitual, repetitive or progressive sentential meaning (the B-type), then the chosen form is the imperfective (85.1% vs. 27.2%). This difference is significant ($\chi^2=11; df=1; p<0.001$).
c) In sentences with no extra aspectual information (the C-type), both options are equally acceptable (90.5% vs. 80.7%; $\chi^2=0.14; df=1; p=0.71$).
d) For all sentences of A and B type, there is a significant difference of acceptance ($\chi^2 \geq 4.57; df=1; p \leq 0.033$). The perfective is preferred in A-type sentences and the imperfective is preferred in B-type sentences. The only exception is the pair (B1/B2) for which both options are equally acceptable ($\chi^2=1.65; df=1; p=0.199$).

As the data in Table 6 already suggest, the overall differences between the A-type sentences in which the perfective is preferred and the B-type sentences in which the imperfective is preferred is significant ($\chi^2=23.68; df=1; p<0.001$).

Summarising the results, whether the predication involved in the sentence was terminative or durative did not play a role for the intuitions of the subjects; those sentences with a limitation of time are mostly preferred with the perfective.

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The actual sentences are given in Appendix I as they were presented to the informants. At the end of every sentence in Appendix I have added to which pair of sentences it belongs.
form; those sentences with a habitual/progressive/repetitive meaning are mostly preferred with the imperfective form, and those with no extra aspectual meaning are more or less basically equally accepted.

However, there are some findings that need to be explained.

1st: Although there is a tendency to choose the default option in the first and second types of sentences, there is still a relatively high percentage of acceptance of the non default option (31.6% for the imperfective forms in sentences with limitation of time and 27.2% for the perfective forms in sentences with a habitual, repetitive or progressive meaning).

2nd: Both forms are highly accepted in those sentences with no aspectual information, but the percentages still differ (90.5% vs. 80.7%)

3rd: Within each group, every pair of sentences behaves differently, sometimes having very high acceptance of the non-default option (such as sentences (A5/A6)), or a relatively low acceptance percentage of the default option (such as sentences (B1/B2)).

4th: the variation in results of the non-default options is bigger than that of the default options.

Remarkably, out of the 15 pair of sentences (added in Appendix I) there is only one pair that is accepted equally by each informant:

(22) *Antes se estudió francés en el instituto (B13)
    Before it study+PAST+PERFECTIVE French in the high school
    ‘In the past, French was studied in high schools’

(23) Antes se estudiaba alemán en el instituto (B14)
    Before it study++PAST+IMPERFECTIVE German in the high school
    ‘In the past, German was studied in high schools’

Nobody accepts sentence (22) while everybody accepts sentence (23), that is, all the subjects say that only the imperfective form is the right one. The native intuitions about the other 14 pairs of sentences do not match as perfectly.

The question that arises here is why all the informants accept these two sentences equally. The default option for these sentences is definitely the imperfective, because of the adverb antes (‘before’, ‘earlier’), which clearly indicates that the eventuality described by the verb and its arguments took place in the past, and that it was habitual. A way to transform this sentence so that it allows the perfective marking on the verb is to render the past time domain in which the eventuality is placed into a closed one. We will show now with the help of the next examples how this can be done.

(24) En 1992 se estudió francés en los colegios
    In 1992 it study+PAST+PERFECTIVE in the schools
    ‘In 1992, French was studied in schools’
Sentence (24) is grammatical. It has the same construction as (23) and it is accepted with the perfective. Thus, the root of the problem seems to be in the temporal difference between ‘in 1992’ and ‘in the past’. By placing both adverbial constructions in one sentence, it is possible to see which of them may have a stronger influence on the verb.

(25) Antes, en 1992, se estudiaba francés en los colegios
    Earlier, in 1992, it study+PAST+IMPERFECTIVE French in the schools
    ‘In the past, in 1992, French was studied at schools’

(26) *Antes, en 1992, se estudió francés en los colegios
    Earlier, in 1992, it study+PAST+PERFECTIVE French in the schools
    ‘In the past, in 1992, French was studied at schools’

Sentence (26) is ruled out. Even by adding a temporal adverb that limits the time domain in the past where the eventuality took place, the verb only accepts the imperfective. It seems that the adverb antes (‘earlier’) has a very strong influence on the aspectual meaning of the sentence, and whenever it appears, only the imperfective form can be used.

2.6. Discussion

As shown in the previous section, there seems to be a general pattern to make one of the two options the default option, which in the clear-cuts is due to the sentential aspectual information, never to the predicational aspect of the eventuality at stake. The predicational aspect does not influence at all the grammatical aspect choice the native speaker makes. The results also show the variability of native speakers’ intuitions. However, there are some patterns that seem to be followed consequently.

In sentences with a sentential marking of limitation of time, the perfective is the chosen form. In sentences with a habitual, repetitive or progressive sentential meaning, the chosen form is the imperfective. Again, the terminativity of the predication does not play a role, as predicted by the first hypothesis. This means that there is an extra aspectual layer added to the [NP [V+NP]] construction that decides what form the verb needs to take. However, the results also show that even when there is extra sentential information, the non-default option is also accepted.

The second hypothesis stated that the choice of grammatical aspect would be made according to the extra aspectual information. Sentences including extra information pointing to some sort of repetitive, habitual or progressive meaning would be only accepted with the imperfective form. Sentences (18) and (19) ((B9) and (B10)) only differ in the aspectual form of the verb. We will repeat them here for convenience:

(27) Los barcos llegaban cada media hora (B9)
    The ships arrive+PAST+IMPERFECTIVE every half hour
    ‘The ships arrived every half an hour’

---

12 This sentence is also perfectly grammatical with the imperfective form.
(28) Los trenes llegaron cada media hora (B10)
The trains arrived+ PAST+PERFECTIVE every half hour
‘The trains arrived every half an hour’

These sentences have extra aspectual information which points to repetition (‘every half an hour’). This is why sentence (B9), with the imperfective form, is judged grammatical by 92.1%. Until this point, the second hypothesis proves to be correct. However, 42.4% of the informants finds (B10) also grammatical. The hypothesis did not expect this result; therefore it needs to be rejected. The native informants seem to have created a situation in their minds where the sentence also accepts the perfective form, and this is achieved by adding another layer of aspectual information, in this case something like (29):

(29) Ayer los trenes llegaron cada media hora
Yesterday the trains arrive+ PAST+PERFECTIVE every half hour
‘Yesterday, the trains arrived every half an hour’

‘Yesterday’ limits the time; it gives a beginning and an end to the event; the temporal domain is made complete. Therefore, in this case, the perfective is also an acceptable form in (B10). This may lead us to think that aspectual choice is not only a sentential notion, but also a contextual, discourse phenomenon.

The second part of the second hypothesis stated that sentences including extra information pointing to some sort of limitation of time would be only accepted with the perfective form. Sentences (16) and (17) ((A3) and (A4)), again, only differ in the form of the verb. We will repeat them here for convenience.

(30) Ayer por la mañana Ulpiano compró el periódico (A3)
Yesterday in the morning Ulpiano buy+ PAST+PERFECTIVE the newspaper
‘Yesterday morning, Ulpiano bought the newspaper’

(31) Ayer por la mañana Ramón compraba una revista (A4)
Yesterday in the morning Ramón buy+ PAST+IMPERFECTIVE a magazine
‘Yesterday morning, Ramón bought a magazine’

These sentences have extra information regarding a specific point in time, with its own beginning and end (‘yesterday morning’). Therefore the sentence with the perfective form is judged grammatical by 97.4% of the informants. However, 10.5% of the informants also consider sentence (A4) acceptable. Two things need to be explained here. First of all, how can it be that 10.5% accepts sentence (A4). Secondly, why is the acceptance of the non-default option of this pair of sentences lower than the acceptance of the non-default option of (B9) and (B10), which include extra aspectual information pointing to a habitual reading? By answering the second question first, the former will speak for itself.

The imperfective simple past in Spanish gives an ongoing or repetitive sense to the meaning of the sentence. The imperfective form expressing ongoiingness has

13 A3, A4, B9 etc. stand for the same sentences as occurring in the table and later on in Appendix I.
the unusual property of always having to be in relation to another tense for the sentence where it occurs to fully function. The habitual/repetitive meaning of the form can function on its own, as long as the time domain is clearly specified. Sentence (A4) ((31) in the text) can never express habituality, since it has been already fixed to only one time in the past. There is only one time domain, which means that a repeated temporal domain is out of the question. Therefore, the only way this sentence can work with an imperfective marker is by understanding it as representing an episodic or progressive situation. Thus, a full sentence as its context has to be added. It seems logical that informants may find it easier to encounter a context as in (29), where only one word is needed to make the sentence acceptable than in (32) here below, where another tense is added for the sentence to function with imperfective marking:

(32) Ayer por la mañana Ramón compraba una revista cuando se encontró con David

‘Yesterday morning Ramón was buying a magazine when he met David’

Our first question regarding sentence (31) is hereby answered. The 10.5% of the informants who accepted (31) must have created a whole extra sentence such as in (32) where the imperfective can function adequately.

In those sentences with no extra aspectual information, it was hypothesized that both sentences would be equally acceptable. This is exemplified by sentences of type C). All pairs of sentences lack extra sentential information. If aspect were an intra-sentential phenomenon, it would be expected that one of both sentences would be more acceptable than the other (according to the predication aspect of the sentence). The results show that this is not the case. Both sentences are equally accepted because the predication in itself does not give enough information as to which aspectual form the verbs need to take. It is easy for the informants to imagine the two needed contexts, one for the perfective form and another for the imperfective form. Hypothesis three is hereby proven to be correct.

All this extra temporal-aspectual information outside the [NP+V+NP] construction seems to play an extremely important role when deciding which form the Spanish past verb needs to take. It is the outer aspect information. The use of outer aspect seems then to be relevant to the final aspectual meaning of any sentence.

Two points will have to be taken into account when developing a second language acquisition of aspect analysis: the effect the learner’s native language and the new information of the L2. In other words, the effect that the L1 aspectual system will have on the acquisition of the aspectual encoding of the L2 will have to be dealt with, and, as we have shown here, the temporal aspectual information outside the [NP+V+NP] is crucial to decide the grammatical marking on the verb,

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14 The repetition is not of the eventuality, but of the hosting domain. This is why ayer por la mañana Ramón compraba tres revistas (‘yesterday morning Ramón bought IMPERFECTIVE three magazines’) is ruled out.
and this is information the L2 learner confronts for the first time. Here we may hint at what exactly is their learning task in acquiring the system of the L2.

2.7. Conclusion

A satisfactory analysis of aspect should account for the similarities and differences in the aspectual systems of all languages of the world. The difficulty for a cross-linguistic comparison is that languages seem to have developed quite different strategies to encode aspectual information. This makes it necessary to work with well-defined distinctions. We have shown here what we believe to be such a basic clear-cut between two notions that are crucially involved in the analysis of aspectual information at the sentential level: predicational aspect and grammatical aspect.

Spanish has developed into a language with a very rich tense system that makes it possible to harbour aspectual information, which in languages with a poorer tense system, like Dutch, is not possible. Andersen (1986, 1991) argued that English L2 learners of Spanish approach the L2 system by linking aspectual marking and lexical meaning. A theoretical problem with this statement is that lexical meaning is not what fully constitutes aspectual meaning: the forming of predicational aspect takes place at a higher level. Taking into account the aspectual information of the arguments may lead to a different interpretation of the data, which means that Andersen’s leading hypothesis should be rephrased. By making a clear distinction between the two aspectual levels, we may not only describe the data more accurately, but also we may be able to explain them too. Our data show how this division of aspectual levels and their independency is crystal clear for Spanish L1 speakers.

L2 learners of Spanish seem to tend to confuse the morphological markers of grammatical aspect with the terminativity or durativity that the predicate of the sentence in question conveys. Although Slabakova & Montrul (1999) claim that L2 learners do not have difficulties, we need to keep in mind that that is only the case for advanced speakers. Dutch beginners and semi-advanced students have been shown to have serious difficulties with the learning and understanding of the Spanish aspectual system. What we propose is that these difficulties are born from the fact that Germanic languages do not need to look outside the meaning of the verb and its arguments to find out what inner aspectual meaning a sentence has. Outer aspect contains therefore crucial information about grammatical aspect. Extra attention needs to be given to the use of outer aspect marking in Spanish and to the consequences of such use.

As we also indicated, the domain of outer aspect is quite complex. One could say that the contribution of grammatical aspect is a low-level outer aspectual phenomenon because it interferes with tense, but, as we have shown, adverbials may interact with grammatical aspect in the sense that they can modify the aspectual information that has been formed, first at the level of the predication and then at the level of tense. This area has not yet fully been explored in the theoretical literature, so we restricted ourselves here to just signalling the problems ahead.

Our data have shown that for L1 speakers of Spanish the division between the two aspectual levels is crystal clear. This has definitely implications on SLA.
Acquiring Spanish as L2 means not only abstracting from the L1 aspectual system but also putting into practice the L2 system. What we have indicated is that in order to account for the transfer in information that needs to take place in the learner’s mind, one can appeal to a combinatorial machinery that yields the same sort of information in L1 and L2 albeit at a different level of structure, as far as Germanic and Romance languages are concerned. The acquisitional difficulty will take place when relating the complex aspectual and tense information encoded in the learner’s L1 into the even more complex counterpart in the L2.