

International Journal of Multilingualism



ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rmjm20

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To cite this article: Tim Diaubalick, Lukas Eibensteiner & M. Rafael Salaberry (2020): Influence of L1/L2 linguistic knowledge on the acquisition of L3 Spanish past tense morphology among L1 German speakers, International Journal of Multilingualism, DOI: 10.1080/14790718.2020.1841204

To link to this article: https://doi.org/10.1080/14790718.2020.1841204







Influence of L1/L2 linguistic knowledge on the acquisition of L3 Spanish past tense morphology among L1 German speakers

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ABSTRACT

Building up on studies that have revealed L2 transfer of imperfective meaning from one Romance language into another [Salaberry, M. R. (2005). Evidence for transfer of knowledge of aspect from L2 Spanish to L3 Portuguese. In D. Ayoun & R. Salaberry (Eds.), Tense and aspect in romance languages: Theoretical and applied perspectives (pp. 179– 210). Benjamins; Foote, R. (2009). Transfer in L3 acquisition: The role of typology. In Y. I. Leung (Ed.), Third language acquisition and universal grammar (pp. 89-114). Multilingual Matters.], we analysed data from 73 German-speaking learners (subdivided into three groups according to their proficiency in another Romance language as L2) and 149 Spanish native speakers using a written completion task. Findings show that learners with a high L2 proficiency tend to match the choices of the native speaker group in prototypical contexts (e.g. Preterite with telic predicates), but not in non-prototypical contexts (telic predicates in the background). This indicates that L2 knowledge is beneficial only for those conditions which do not require high processing costs. In turn, in non-prototypical contexts, speakers must process conflicting features that represent 'deep' conceptual components of the language. We conclude that processing of these cases has not been successfully acquired in the L2 and thus cannot transfer to the L3.

ARTICLE HISTORY

Received 3 December 2019 Accepted 20 October 2020

KEYWORDS

Tense and aspect; Spanish 13; German learners; third language acquisition; transfer; cross-linguistic influence

1. Introduction

Over the last three decades, many researchers have highlighted important findings that distinguish L2 from L3 acquisition in both qualitative and quantitative ways (e.g. De Angelis, 2007; Hirosh & Degani, 2018). For example, in L3 acquisition more languages can lead to positive or negative transfer, as both the L1 and the L2 represent possible sources for transfer. Transfer is usually defined as 'the influence resulting from the similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired' (Odlin, 1989, p. 27). Transfer, however, is neither inevitable nor universal, and different factors have been found to

have an influence on language acquisition: linguistic factors per se (e.g. typological similarities), learner internal factors (e.g. psychotypology, L2-status, proficiency, recency of language use, metalinguistic awareness) and learner external factors (e.g. order of acquisition, formality of context) (e.g. De Angelis, 2007; Jarvis & Pavlenko, 2010).

Against this general background of previous findings about L2/L3 acquisition, in the present study we focus on the acquisition of aspectuality as reflected in the past tense by German-speaking learners of L3 Spanish with and without previous knowledge in other Romance languages and English (the L2s). The rationale to use these combinations of languages is based on the fact that whereas inner-Romanic differences concern the opposition between perfectivity and (im)perfectivity with different morphemes (Squartini & Bertinetto, 2000), German, in contrast, generally lacks aspectual morphology (Heinold, 2015). In line with Williams and Hammarberg (1998), we use the term L3 for any language the learner is currently learning; all the existing linguistic knowledge in the learners' mind which is not based on L1 acquisition principles is referred here as L2 (i.e. so one can have more than one L2). Whereas some studies have provided empirical data to substantiate the argument about the (relative) transfer of knowledge about aspectual meaning from one Romance language as L2 into L3 Spanish (Foote, 2009; Salaberry, 2005), such studies have used English as L1, raising questions about the possible positive interaction between aspectual configurations of the two source languages (i.e. English as L1 and Romance as L2). In this paper, we analyse the acquisition of aspect in L3 Spanish among 73 L1 German-speaking learners who were further subdivided into three groups with varying degrees of proficiency in a Romance language, the latter functioning as one of their L2s. Our objective was to assign categorical distinctions about aspectual configurations to the source languages (i.e. the L1 as Germanic and the L2s as Romance) to isolate the possible influence of each source language for the development of aspectual knowledge in the L3. The empirical evidence from the present study provides limited support for the claim about a categorical dissociation between the source languages on the processing of data in the L3.

2. Tense and aspect

Aspectual meanings fall into two levels of representation: situation type (or lexical aspect) and viewpoint (or grammatical) aspect (Smith, 1997). Situation type is commonly associated with the inherent lexical aspectual value of verbal predicates. Vendler (1957) classified these into four types: states (durative, non-dynamic, atelic), activities (durative, dynamic, atelic), accomplishments (durative, dynamic, telic) and achievements (non-durative, dynamic, telic). In contrast, grammatical aspect refers to speakers' (and hearers') perspectives on the aspectual nature of situations and is explicitly marked on verbal morphology. In general, the perfective conveys meanings related to changes of state, whereas the imperfective focuses on the permanence of the state (e.g. Caudal & Roussarie, 2005; Klein, 1994).

2.1. Tense and aspect marking in Spanish (and other Romance languages)

In the Romance languages, grammatical aspect is obligatorily and consistently marked through verbal morphology to convey perfective-imperfective meanings in the past tense. In Spanish, in particular, perfective-imperfective meanings are represented

through the use of the Preterite and Imperfect (e.g. García Fernández & Camus Bergareche, 2004; Real Academia Española, 2009, pp. 1688–1690; for French see for example Grevisse, 1986). The selection of the perfective or imperfective meaning is the result of 'the decisions that the speaker takes depending on the particular understanding and conceptualisation of the situation to be presented' (Doiz-Bienzobas, 1995, p. 50). It is essential to say that the selection of a specific form is not capricious but reflects the speaker's point of view over a given situation. Thus, tense-aspect morphology is not arbitrary but to a certain extent it is subjective (Haßler, 2016; Salaberry, 2008).

Said conceptualisation of grammatical aspect may reflect meanings already given by lexical predicates (i.e. prototypical). For instance, state verbs tend to be marked with the imperfective (e.g. *era*, *tenía* [was, had]) and telic events tend to be marked with the perfective (e.g. *comió*, *llegó* [ate, arrived]). On the other hand, contextual information beyond the lexical predicate such as adjuncts (e.g. adverbial phrases) broadens the range of options to convey aspect (i.e. both prototypical and non-prototypical meanings). For instance, in sentence (1) below, the adverbial phrase *en ese momento* makes likely the use of the Preterite (i.e. non-prototypical). The use of an adverbial phrase indicates the inceptive point of a state; thus, it changes it from a non-dynamic to a dynamic event:

(1) En ese momento, SUPO (PRET) la verdad. At that moment, (s/he) discovered the truth.

Non-prototypical cases are prompted by a variety of contextual cues, some of which are not explicitly marked as is the case in sentence (1) above. For instance, sentence (2) below shows that it is also possible to use the perfectivity marker with an adverbial such as *siempre* (always) that would normally trigger the use of the imperfective form:

(2) Siempre SUPO (PRET) la verdad. (S/he) always knew the truth.

We provide additional examples in subsequent sections.

2.2. Tense and aspect marking in Germanic languages (German, English)

German is a so-called non-aspect language (e.g. Andersson, 2004) and both German past tenses (i.e. *Perfekt* and *Präteritum*) can convey perfective and imperfective meaning. Generally, atelic descriptions in the past tense are preferentially interpreted imperfectively (see example (3)), while telic descriptions normally are interpreted perfectively (see example (4); Bohnemeyer & Swift, 2004, pp. 268–269):

```
eintrafen /eingetroffen sind,
(3) Als
                      Nijmegen
                in
   when
           we
                in
                     Nijmegen
                                  arrive.pret/arrive.perf
                     /
                         hat es geregnet.
   regnete
                es
   rain.pret
                expl
                          rain.perf
```

'When we arrived in Nijmegen, it was raining.'

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(4) Als wir in Nijmegen eintrafen /eingetroffen sind, when we in Nijmegen arrive.pret/arrive.perf regnete es für eine Stunde / hat es für eine Stunde geregnet. rain.pret expl for an hour / rain.perf for an hour
```

'When we arrived in Nijmegen, it rained for an hour.'

However, these correlations are merely an implicature and can be easily cancelled by an appropriate context. Different from Spanish, German more often tends to express aspectuality by means of lexical devices. For example, German possesses a highly developed system of *Aktionsarten:* prefixes can change the lexical aspect of the predicate. For example, the prefix *aus* in *austrinken* ('to drink up') adds an inherent boundary to the activity verb *trinken* ('to drink') and, therefore, renders it telic. Furthermore, as examples (5) and (6) show, German relies on lexical devices to express progressive (e.g. the particle *gerade* ('at the moment'), the construction *dabei sein zu*, or the (non-normative) *am*-progressive (*sein* + *am* + substantivized infinitive)) or habitual meaning (e.g. *für gewöhnlich* ('usually') or *immer* ('always')):

(5) Manuel tanzte gerade / war dabei zu tanzen / Manuel dance.pret currently / "dabei sein".pret dance.inf / war am Tanzen, als ich den Raum betrat. at-the dance.inf, when I the room enter.pret.

'Max was dancing when I entered the room.'

(6) Als Kind spielte er für gewöhnlich Fußball. As child play.pret he for usual football.

'As a child he used to play / would play football.'

In contrast to German, English has a basic aspectual contrast (Salaberry & Ayoun, 2005) manifested in the grammaticalized progressive and the *used to/would*-construction. The former is obligatory and has to be expressed in all tenses (e.g. Declerck, 2006) resulting in an opposition between the non-progressive Simple Past (e.g. She swam) and the progressive periphrasis (e.g. She was swimming) in the past domain. The *used to/would*-construction, on the other hand, is not obligatory; the mostly used past tense form to express habituality is the English Simple Past in combination with a repetitive adverb (Tagliamonte & Lawrence, 2000).

3. Transfer and the acquisition of past tense morphology in Spanish

In general, previous hypotheses have focused on the effect of a variety of linguistic factors such as lexical aspect, discourse grounding and syntactic configurations. For instance, Andersen (1991) argued that the acquisition of L2 learners' abilities to recognise and mark aspectual configurations in the L2 is guided by lexical aspectual categories. Similarly, (Bardovi-Harlig, 1994, p. 43) argued that 'learners use *emerging* verbal morphology to distinguish foreground from background in narratives.' As useful as these hypotheses have been to account for development of the L2 during initial stages of acquisition, the proposed correlations between lexical-discursive factors and aspect marking leaves unexplained idiosyncratic markings based on expanded contexts of reference (typical in more advanced stages of acquisition).

To address this theoretical gap, Salaberry (2013) proposed the possibility of linear and non-linear patterns of development to the extent that invariant meanings can be acquired along a continuous path determined by a linear progression correlating with increasing levels of experience and proficiency in the L2, whereas complex meanings may not be easily transferred into the target language (break-up of the linearity of

progression prompted by proficiency gains). Building up on the notion of invariant versus contextualised meanings of aspect (Binnick, 1991), Salaberry adduces that invariant meanings are the ones prompted by prototypical contexts, as is the case of the combination of states with imperfective grammatical aspect or telics with perfective aspect. In contrast, contextualised meanings are prompted by non-prototypical contexts as is the case of the combination of states with perfective aspect and telics with imperfective aspect. It is open to question, however, whether the extended experience developed in two source languages may circumvent the limitations of transfer and re-conceptualisation of aspectual meanings in an L3.

Given the findings of studies in L2 acquisition, we hypothesise that learners whose L1 differs from the target language in its temporal-aspectual system will experience difficulties in acquiring the L2 system. In the context of the acquisition of French, for instance, Izquierdo and Collins (2008) found that the greater the L1/L2-difference, the more the learners rely on lexical aspect features when selecting a past tense form. As these difficulties arguably persist, we can assume that learners will not be able to transfer structures from an L2 to any L3 as these have not been successfully acquired in the first place. Evidence for this kind of L1-effect comes also from studies by McManus (2015) and Diaubalick and Guijarro-Fuentes (2017, 2019) who show that German learners struggle in the process of detangling perfective from imperfective features, as these are bundled together on the same verb form in their L1. Especially in low-frequency usages, such as non-prototypical combinations, there are persistent difficulties attested also among very advanced learners of French or Spanish L2. Consequently, in these domains, we would expect the same kind of L1-effects in the acquisition of an L3.

4. Transfer in multilingual language acquisition

4.1. Models of cross-linguistic transfer

Most researchers agree that related languages (e.g. Romance languages) are more likely to serve as a transfer source for each other than non-related languages. Furthermore, there is agreement on the topic that typological similarities are likely to transfer. In general, it is not actual linguistic similarity that is most important for transfer, but the perceived similarity by the learners themselves (i.e. psychotypology; Kellerman, 1983). If actual and perceived similarities coincide the result is positive transfer; if they do not, negative transfer occurs. Here we highlight three factors that have been considered relevant to assess the nature of transfer mechanisms: language typology, proficiency and learning mechanisms.

The Typological Primacy Model (TPM) isolates the effect of typology as an important factor guiding the transfer process (e.g. Rothman, 2015). It is based on the assumption that typological similarities between the L3 and both the L1 and the L2 will be used to guide the acquisition of the third language. A second factor, which seems to influence transfer is proficiency. One can assume that transfer is more likely to occur at the beginning stages of L3 learning given the learner's need to fill knowledge gaps in the L3 (Williams & Hammarberg, 1998). Several authors assume that with increasing proficiency in the L2 the influence of the latter over the L3 increases (e.g. Tremblay, 2006).

Finally, another possible factor affecting transfer is the effect of distinct learning mechanisms on the acquisition of the L1 on the one hand, and all subsequent languages (L2, L3, Ln) on the other hand. This effect (labelled the L2-status) entails that L3 acquisition will mirror the learning process followed by the L2-system (Falk & Bardel, 2011; Williams & Hammarberg, 1998). In L1 acquisition lexis is typically stored in declarative memory whereas 'the non-conscious (implicit) learning and use of aspects of a symbol-manipulating grammar' is stored in procedural memory (Ullman, 2001, p. 107). L2 and L3 learners seem to rely more on declarative memory in general, making the L2 system the preferred transfer source in L3 learning. Additional support for this claim is provided by apparent similarities in the processes of both L2 and L3 acquisition (e.g. age of onset, learning outcome, learning conditions, and metalinguistic awareness) (Falk & Bardel, 2011).

4.2. Previous studies of L3 acquisition of aspect

Among the few empirical studies that have investigated the L3 acquisition of aspect (Fessi, 2014), we summarise the results of four such studies that are directly relevant to the present one. Salaberry (2005) analysed the acquisition of aspectual contrasts in L3 Portuquese among L1 English – L2 Spanish speakers. Not surprisingly, the overall findings revealed that the L1 English-L2 Spanish learners had achieved a high level of proficiency in the selection of aspectual markers in the L3 with the exception of the judgments about the category of statives: here, the selection was less consistent and less categorical than among native speakers of Portuguese. The effect was noted on the conceptualisation of non-prototypical markers of states. Foote (2009), analysed data from different Romance languages to assess the effect of typological similarity of Romance languages used as L1 or as L2 on the transfer of aspectual knowledge to another Romance language functioning as L3. Findings show that all L3 speakers were able to distinguish the semantic distinctions of perfectivity depicted in the test sentences irrespective of whether the Romance language was the participants' L1 or L2. Even though, in principle, the results of her study provide evidence in favour of a model primarily based on typological contrasts (e.g. TPM), the assessment instrument used by Foote tested prototypical representations of aspect only.²

An additional study (Diaubalick & Guijarro-Fuentes, 2016) originally targeting the L2 acquisition of aspect in Spanish is worth mentioning because the majority (if not all) of the participants were actually L3 Spanish learners as the German speakers had also acquired a significant level of competence in English as L2. The results revealed the failure of L1 German-L2 English speakers to properly mark non-prototypical aspectual meanings in their L3 Spanish (i.e. so-called coercion contexts; see Michaelis, 2004): the complex notions of iterativity vs. habituality were not acquired by the L1 German-L2 English speakers and, as they noted, 'even advanced speakers do not reach native level' (Diaubalick & Guijarro-Fuentes, 2016, p. 192).

Finally, Eibensteiner (2019) collected data among 36 German-speaking learners of L3 Spanish to analyse effects of the L2 (English) on the use of (im-)perfective aspect in prototypical as well as in non-prototypical contexts in L3 Spanish. In general, aspectual knowledge acquired through L2 English positively influences the acquisition of aspectual distinctions in L3 Spanish. Interestingly, he finds positive transfer for prototypical and non-prototypical combinations of lexical and grammatical aspect. He concludes that

the learners rely on their L2 English knowledge and, therefore, assume stative verbs to likewise appear only in combination with the Preterite form in L3 Spanish. Consequently, the learners overgeneralise the Preterite with stative predicates. This leads to positive effects in non-prototypical perfective contexts (e.g. Preterite combined with states) and to negative effects in prototypical continuous contexts (e.g. Imperfect combined with states).

5. The present study

5.1. Hypotheses

The review of the previous literature on the topic justifies the methodological setup of the present study: the analysis of the acquisition of aspect in L3 Spanish among L1 Germanspeaking learners with different L2 knowledge, especially in Romance languages. More specifically, the study rests on the following theoretical assumptions: First, the relative lack of morphological representation of aspect in the L1 (German) may prevent learners from incorporating the complete configuration of aspect in the L2 or the L3. Furthermore, we distinguish between prototypical and non-prototypical configurations and assume that the relative success of the reliance of the L3 learner on aspectual features learned in the L2 will be limited to the consistent and proficient marking of aspect in prototypical conditions (likely to be positively affected by the development of explicit knowledge), whereas non-prototypical markings will be less successful (affected by L1 configurations). Based on these theoretical assumptions, we therefore propose the following hypotheses:

- (i) We predict that in the case of morphological markings associated with prototypical configurations of aspect in the L3, L1 German learners may successfully transfer their knowledge of aspect acquired in the L2 (i.e. Romance) to the L3 Spanish.
- (ii) In contrast, the aspectual configuration of aspect in the L1 (i.e. German) will hinder learners from successfully acquiring the non-prototypical configurations of aspect in their L2, and this effect will also negatively affect the successful selection of non-prototypical configurations of aspectual morphology in the L3 Spanish.

5.2. Methodology

The research methodology of the present study replicates the data collection procedure used in Salaberry (2011) with two important differences: First, our experimental group is composed by native speakers of German and not English. Second, we do not focus on L2, but on L3 acquisition as our learners are multilingual. Consequently, the main focus of the present study will be on possible transfer of the participants' L1 and L2 linguistic knowledge.

5.3. Participants

The participants were divided into four groups according to their linguistic knowledge: three German speaking groups of L3 learners of Spanish (n = 73) and one Spanish native control group (n = 149).³ All learners were university students of Spanish with

ages ranging from 17 to thirty. They were all enrolled in Spanish language courses as part of their curriculum. The overall mean in a standardised proficiency test (Oxford University Language Centre) was 37.92 out of a total of 50 points. We established three groups according to the learners' linguistic skills in other previously learned Romance languages (see Table 1): In group I, participants had no knowledge in any Romance language other than Spanish (n = 15). Participants of group II possessed basic knowledge in at least one Romance language (e.g. A1 – B1 CEFR; n = 39) and, finally, group III participants had an advanced level in at least one Romance language (e.g. B2 – C2 CEFR; n = 19). It is important to mention that, additionally, all participants indicated they had achieved an advanced level of English (B2 – C2 CEFR).

5.4. Task

The data on the use of past tense marking were collected with the use of a written 40-item discourse-based forced-choice task (see Salaberry, 2011). The text used in that study was a modified version of a native speaker's narrative of a cartoon produced by Lavado (1986).⁵ All verbs in the text were classified according to lexical aspectual class (statives and telics; activity predicated were treated as distractor items in the present study) and grounding (foreground and background). All participants received both the forced-choice task and the cartoon distributed online via the tool soscisurvey.de.

For the present study, the use of stative predicates in the background (see example 7) as well as the use of telic predicates in the foreground (see example 8) were considered prototypical combinations:⁶

- (7) La casa estuvo/<u>estaba</u> abandonada. 'The house was abandoned.'
- (8) Ayer <u>fui</u>/iba a visitar la antigua casa de mi abuelo. 'Yesterday I went to visit my grandfather's old house.'

In contrast, the use of stative predicates in the foreground (see example 9) as well as the use of telic predicates in the background (see example 10) were seen as non-prototypical contexts:

- (9) En ese momento quise/quería ver el resto de la casa. 'At that moment, I wanted to see the rest of the house.'
- (10) Cuando visitaba a mi abuelo me puse/me ponía ropa de indio. 'When I visited my grandfather I put on the Indian custom.'

For a more detailed analysis of the task used see Table 2, Salaberry (2011) or the appendix. Unlike the case of other studies that directly manipulate the selection of verbal predicates to produce the maximum contrast between prototypical and non-prototypical

Table 1. Language background of participants in the study.

Groups	Number of Participants	Knowledge in a Romance L2	Spanish proficiency
Group I	15	No knowledge	36.41
Group II	39	Basic knowledge (A1 – B1 CEFR)	39.56
Group III	19	Advanced knowledge (B2 – C2 CEFR)	38.36

exemplars (e.g. Salaberry, 2013; Slabakova & Montrul, 2007), the ones used in the present text were the (indirect) product of a native speaker's narrative retelling of the series of vignettes that are part of the cartoon. More specifically, non-prototypical exemplars in the present text were the by-product of a narrative. As such, they are more likely to be part of the input accessible to non-native speakers (at least relatively speaking when contrasted with the data from the experimental sentences/texts of other studies).

6. Results and analysis of data

6.1. Descriptive statistics

As stated above, learners were grouped according to their previous L2 knowledge in other Romance languages (see Table 1). Tables 3 and 4 display the results of the selection of morphological marker (i.e. Preterit or Imperfect) made by each group according to the combination of prototypical and non-prototypical contexts identified in Table 2 above. For the prototypical contexts the descriptive data on Table 3 show a marked preference for the use of prototypical markers among native speakers (i.e. use of perfective/imperfective options in the ratio of 25%/75% for states in the background and 98%/2% for telic events in the foreground). In contrast, the selections of learners seem to be described by a gradient scale whereas knowledge of a Romance L2 (from none to advanced) seems to be associated with selections that gradually move toward the decisions made by the group of native speakers. That is, for the category of states, we move from a ratio of 45%/55% for learners of group I up to a ratio of 29%/71% for group III. For the selections associated with telics in the foreground, the gradient scale is less pronounced: from a ratio of 81%/19% for learners in group I up to a ratio of 92%/08% for group III.

In turn, in the non-prototypical contexts the descriptive data on Table 4 do not show a marked contrast between native and non-native speakers for the category of states in the foreground (i.e. use of perfective/imperfective options in the approximate ratio of 70%/30% across all groups). In contrast, there seems to be a noticeable distinction in the selection of perfective and imperfective marker for the category of telics in the background between native speakers (ratio of 14%/86%) and all learners (an approximate ratio of 40%/60%).

6.2. Global statistical analysis

For the statistical analysis of a separate significant effect of prototypical and non-prototypical meanings, we first need to perform a global analysis of all data combined. The target variable in all analyses is the selected form, that is, the binary variable that represents the choice between Preterit and Imperfect. The exogenous variables selected

Table 2. Target verbs classified according to lexical aspectual class and grounding (see Salaberry, 2011, p. 191).

Lexical aspect	Background	Foreground	Total			
Statives	10	4	14			
Telics	5	10	15			
Distractors (activities)	9	2	11			
Total	24	16	40			

Table 3. Selections of Spanish perfective/imperfective morphology in prototypical contexts^a.

Aspectual types/Groups		Preterit selected		Imperfect selected	
States in the background	Group I (<i>n</i> = 15)	67	45%	82	55%
(10 items)	Group II $(n = 39)$	129	33%	257	67%
	Group III $(n = 19)$	55	29%	133	71%
	Native control group $(n = 149)$	372	25%	1096	75%
Telics in the foreground(10 items)	Group I $(n = 15)$	122	81%	28	19%
	Group II $(n = 39)$	343	88%	47	12%
	Group III $(n = 19)$	173	92%	16	08%
	Native control group ($n = 149$)	1459	98%	25	02%

^aAs it was possible to skip single items, the total percentage across perfective/imperfective markings for each group does not always add up to 100.

for this study are: L1 (German vs. Spanish), proficiency level⁷, previous Romance knowledge (coded only for learners) and the condition in which a given item appeared (two prototypical contexts, two non-prototypical contexts). Additionally, participant identification was set as random factor.

In a first step, we ignore the previous L2 knowledge in order to study the data by all 222 participants together. We conducted a mixed effect binary logistic regression analysis that, with an accuracy of 81.6%, revealed that only the item condition as fixed factor had a significant global effect (F(3, 6350) = 581.462, p < .001). Conversely, there were no significant effects for the L1 (F(1, 6350) = 0.446, p = .504) nor the proficiency level (F(4, 6.350) = 1.585, p = .175).

In a second step, the specific L3 effects were tested. To that aim, we analysed the learners only (n = 73) using the same type of mixed-model analysis. Again, and with an overall accuracy of 74.6%, the only significant effect found in the data concerned the item condition (F(3, 2067) = 137.843, p < .001). Neither the proficiency level (F(4, 2067) = 1.159, p= .327) nor the previous L2 Romance knowledge (F(2, 2067) = 0.136, p = .873) was shown to have a significant influence on a global level.

Finally, in the third step, we searched for possible interactions between the individual variables by performing two UNIANOVAS without random factors. The first one (with all participants) revealed a significant interaction between proficiency and item condition (F (3, 6335) = 3.099, p < .001), but none between L1 and condition (F(12, 6335) = .811, p = .487). The second UNIANOVA (over learners only) revealed significant interactions between proficiency level and item condition (F(12, 2037) = 2.184, p = .010), between previous L2 knowledge and item condition (F(6, 2037) = 3.050, p = .006), but none between

Table 4. Selections of Spanish perfective/imperfective morphology in non-prototypical contexts^a.

Aspectual types/Groups		Preterit selected		Imperfect selected	
States in the foreground(4 items)	Group I (<i>n</i> = 15)	40	67%	20	33%
-	Group II $(n = 39)$	105	67%	51	33%
	Group III $(n = 19)$	53	70%	23	30%
	Native control group $(n = 149)$	431	73%	162	27%
Telics in the background(5 items)	Group I $(n = 15)$	27	36%	48	64%
	Group II $(n = 39)$	77	40%	115	60%
	Group III $(n = 19)$	34	36%	61	64%
	Native control group $(n = 149)$	104	14%	633	86%

^aAs it was possible to skip single items, the total percentage across perfective/imperfective markings for each group does not always add up to 100.

proficiency and previous L2 knowledge (F(3, 2037) = .466, p = .706). However, there was no significant interaction between all three variables (F(9, 2037) = 1.722, p = .079).

The results of the mixed-model analyses described above allow us to understand the core analyses to be described in the post-hoc tests in the next section. In sum, the global statistical analyses show that participants behave differently in the four conditions. Neither the L1, nor the learners' proficiency level, nor their knowledge in a Romance L2 has manifested a significant effect on a global level. It is thus only the item condition that has a significant overall effect on the data. We can thus conclude that the participants indeed behave differently in prototypical than in non-prototypical contexts. The following analysis allows us to see why that is the case.⁸

6.3. In-depth analysis of dependent variables

Adapting the same methodology used in Salaberry (2011), we re-coded the data as scores, calculating a value for each participant per condition by adding up the numbers of imperfect forms and dividing the sum through the number of items per condition. Thus, the maximum of this value is 1 (Imperfect selected in all contexts) and the minimum is 0 (Preterit selected in all contexts). The resulting values are graphically illustrated in Figures 1 and 2.

First, as shown in Figure 1, it appears there is a gradual increase in the use of the imperfective in association with states in the background as knowledge of the L2 increases, at the same time that there is an increase in the use of the perfective option with telics in the foreground in association with increased L2 proficiency. In principle, this could simply signal that the more experience L1 German speakers have with the marking of perfective-imperfective in the L2 Romance languages in general, the closer they approximate the selections of native speakers.

On the other hand, the data from Figure 2 presents a more complicated outcome. First, the data from telic verbs in the background does not show the same monotonic

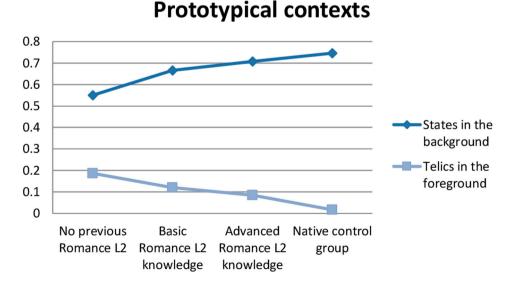


Figure 1. Selections of past tense in prototypical contexts.

Non-prototypical contexts

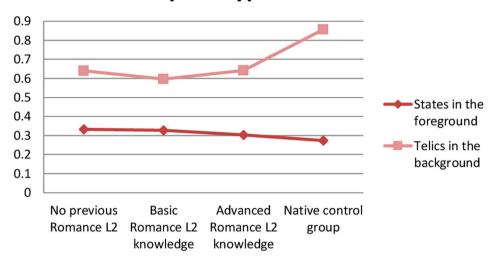


Figure 2. Selections of past tense in non-prototypical contexts.

progression towards native speakers' selections in association with experience with the L2 as shown in the previous figure across verb types in prototypical contexts. Rather, it appears that all learners – irrespective of experience with the L2 – are making no progression given the rather flat line across all three groups clustered around the 0.65 marker. In contrast, none of the groups (including native speakers) seem to differ with regards to the marking of states in the foreground (all scores clustered around the 0.3 mark).

To further analyse these findings, for each one of the four conditions, we ran a separate ANOVA (see Table 5). Results show that there are significant differences between the groups in both prototypical conditions, but, only in one non-prototypical condition.

To find out precisely where these significant differences stem from, we conducted Post-hoc tests using Tukey's HSD. For both prototypical contexts, natives contrast significantly with those learners with basic or without knowledge of a Romance L2, but there is no statistically significant difference between the learners with advanced L2 Romance knowledge and the native control group (telics in the foreground: mean difference = .03864, SE = .041,

Table 5. Results of prototypical and non-prototypical conditions (ANOVA).

		Mean value for each group				ANOVA result and	
Condition		Group I	Group II	Group III	NSs	<i>p</i> -value	
Prototypical contexts	States in the background	.5504	.6661	.7079	.7465	F(3, 218) = 7.632, p < .001	
	Telics in the foreground	.1867	.1205	.0842	.0168	F(3, 218) = 10.650, p < .001	
Non-prototypical contexts	States in the foreground	.3333	.3269	.3026	.2735	F(3, 218) = 1.310, p = .272	
	Telics in the background	.6400	.5970	.6421	.8567	F(3, 218) = 14.640, p < .001	



p = .782). For the non-prototypical contexts, in contrast, the results of the ANOVA confirm the initial analysis of Figure 2: all participants (including native speakers) behave rather alike regarding the marking of past tense with states in the foreground. And, as also described in the visual analysis of Figure 2, for the selection of paste tense with telics in the background, all learners contrast significantly with the natives, but crucially not with each other. That is, within this particular category, there are no significant differences depending on previous L2 knowledge, i.e. all learners behave alike.

7. Discussion

The analysis of the findings from the present study partially supports the two hypotheses described in Section 5.1 above. First, with reference to Hypothesis 1, the data revealed some significant differences within the learner groups that are directly correlated with proficiency in the L2. Generally, we could observe that those learners with a higher knowledge in typologically similar L2s find themselves in a more advantageous position to approximate native speakers' selections of aspectual markings in the L3 Spanish. In contrast, in line with the claim under hypothesis 2, the data show a discontinuous progression toward the native-like selection of at least one of the non-prototypical aspectual configurations in the L3 Spanish (i.e. telic events in the background) despite the continuous increase in the learners' experience and proficiency in the Romance languages (L2 primarily). The latter result is predicated, primarily, on the fact that (L1) German lacks the perfectivity contrast essential to process the difference between the Spanish past tense in a target-like fashion. Notwithstanding this claim in support of hypothesis 2, the results on the successful marking of past tense of stative verbs in the foreground across all levels of competence in the L3 (only case of non-statistical significance) raise an important question about the apparent convergence of selections from both native speakers and learners. We turn now to the analysis of the types of verbs used in the selected instrument.

As mentioned in the description of the text used to collect the data for the present study, the selection of verb types was not directly manipulated to produce specific contrasts depicted by prototypical and non-prototypical verbs as it has been done in the case of other studies focused on the analysis of that contrast with the use of sentence-based grammaticality judgments (e.g. Slabakova & Montrul, 2007) or discourse-based tests (e.g. Salaberry, 2013). In essence, the exemplars of non-prototypical cases are likely to be found in a typical narrative. Thus, in principle, learners would encounter non-prototypical cases in the present text that they have seen previously, and, consequently, they would be able to recognise such cases as acceptable.

Along the lines of the previous description of the type of data used for the present study, we note that in typical narratives there is a well-known 'anomaly' of over-representation of a few verb types of the stative category (e.g. ser, estar, haber) relative to tokens of all state verbs. In contrast, the type/token ratio of telic verbs is much more balanced and thus more likely to be affected by rule-like processes rather than associative learning mechanisms (Bardovi-Harlig, 2000, p. 136). The over-representation of a few exemplars of the category statives makes them highly noticeable in the L2/L3 data, not only in cases when they convey prototypical meanings (e.g. era, estaba, había), but more importantly, when they convey non-prototypical meanings (e.g. fue, estuvo, hubo) because they are even more noticeable. An additional factor that is likely to compound this noticing

effect is that common instructional practice highlights the unusual nature of departures from prototypical meanings in the case of statives. Although the above (speculative) claim about the specific effect of the type/token ratio of statives versus telic events on the results of the study was not incorporated into the methodological design of this study, the phenomenon is well attested indirectly through the analysis of corpus data on aspect in Spanish and instructional materials (e.g. textbook analysis in Eibensteiner, 2017, p. 209). In essence, the combined effect of highly noticeable departures from prototypical meanings in data accessible to most learners in association with instructional procedures may mirror the continuous progression associated with experience/proficiency in the L2/L3 proposed for prototypical meanings in general.

With reference to the L3 models reviewed in previous sections, our data seem to support the basic claim of the L2 status factor. First, it is clear that explicit learning mechanisms associated with prototypical meanings of aspect may be readily available through information acquired through the L2 to process data in the L3. Second, the data also show that implicit learning mechanisms associated with complex aspectual concepts may be representative of the type of implicit language knowledge that would not be available for the L3 system through the L2. On the other hand, our findings do not provide relevant empirical data to assess the validity of other transfer models, primarily focused on typological factors (i.e. less focused on acquisition mechanisms as the L2 status factor). For instance, as our learners were all at least at an intermediate level of L3 Spanish or higher, we were not able to verify any assumptions on the initial state as would be necessary to confirm the tenets of the TPM. However, as our data show positive transfer between a Romance language and Spanish, the results do not necessarily contradict the general tenets of the TPM either.

The present findings are to be qualified due to two important caveats prompted by some features of the data collection process and the selection of the participants in the study. First in the German educational system, all learners – regardless of their knowledge in Romance languages - are likely to be advanced speakers of English (one of their L2s). Thus, Spanish in most cases is, in fact, their L4 or even their L5 and it seems possible that the learners might have profited from their aspectual knowledge in English (Eibensteiner, 2019). Second, for logistical reasons we did not implement any direct measure of the learners' aspectual knowledge in the Romance L2 nor in English.

Notwithstanding the previous caveats, the use of German as the L1 to assess the acquisition of Spanish as L3 presents valuable empirical data that can become part of a broader database in which L1 English has been the preeminent cases study. In this regard, some of the results of the present study (irrespective of L1) present converging evidence with previous ones (prototypical meanings and knowledge of additional Romance languages), at the same time that some data raise interesting questions about the nature of the acquisition process when focused on aspectual meanings that require more than just experience with the language (non-prototypical meanings) and whether there is a possible range of non-prototypical meanings (from relatively common in the data to very rare) that could give rise to distinct learning outcomes.

Notes

1. An anonymous reviewer correctly pointed out that the generic use of the term L2 in our study may not be representative of the complexity of multilingual language acquisition, as many of



our learners have more than one L2. Although we could have ordered the languages chronologically (i.e. order of acquisition), that is, German as L1, English as L2, the other Romance languages as L3/L4/Lx and Spanish, the target language of the present study, as L3/L4/Lx (as well), this decision would cause some terminological incoherence, as Spanish would be the L3 for group I, but the L4/L5/Lx for learners of group II and III (depending on their individual language biography).

- The main assessment instrument was a sentence conjunction judgment task which was intended to evaluate semantic implications based on the concept of perfectivity (i.e., focus on endpoint markers).
- 3. The data of the native speaker control group were already collected in Salaberry (2011). The reason for including such a high number of native speakers is to ascertain that the potential wide range of perspectives associated with the selection of aspect does not compromise the reference point to assess the selections of non-natives (see above).
- 4. Participants self-rated their knowledge into three categories: no knowledge of L2 Romance, A1-B1 range, and finally B2-C2 range.
- 5. The modifications of the text were mostly restricted to vocabulary items that could possibly compromise the understanding of the text by less proficient learners. Other changes were necessary to maintain a good balance of lexical aspectual classes of verbs (i.e., states, activities and telic events) and narrative grounding (i.e., foreground and background).
- 6. The preferred choices of the native speakers are underlined.
- 7. For statistical purposes, advanced learners and native-speakers are grouped together in order to avoid an absolute mathematical correlation between proficiency and the L1 variable. As a result, we obtain five proficiency groups, depending on whether a learner achieved a (significantly) lower or higher score in the placement test. Regardless of these measures, all results concerning proficiency are to be taken with high caution as the resulting group sizes are highly imbalanced, as more than 60 learners achieved an average score. The focus, thus, will be on the variable of previous L2 knowledge. This procedure is justified by the fact that, as we will show further below, the proficiency value has no significant effects throughout the analyses.
- 8. Note that due to the very unequal sizes of proficiency groups, we will focus further analysis on the influence of previous L2 knowledge only, excluding their proficiency level for further analyses. Still, the average proficiency level of all three learner groups is quite similar (see Table 1).

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

Andersen, R. W. (1991). Developmental sequences: The emergence of aspect marking in second language acquisition. In T. Huebner & C. A. Ferguson (Eds.), *Crosscurrents in second language acquisition and linguistic theories* (pp. 305–324). Benjamins.

Andersson, S.-G. (2004). Gibt es Aspekt im Deutschen? In L. Gautier & D. Haberkorn (Eds.), *Aspekt und Aktionsarten im heutigen Deutsch* (pp. 1–11). Narr.

Bardovi-Harlig, K. (1994). Anecdote or evidence? Evaluating support for hypotheses concerning the development of tense and aspect. In S. M. Gass, A. Cohen, & E. Tarone (Eds.), *Research methodology in second language acquisition* (pp. 41–60). Lawrence Erlbaum.

Bardovi-Harlig, K. (2000). Tense and aspect in second language acquisition: Form, meaning and use. Blackwell.

Binnick, R. (1991). *Time and verb*. Blackwell.

Bohnemeyer, J., & Swift, M. (2004). Event realization and default aspect. *Linguistics and Philosophy, 27* (3), 263–296. https://doi.org/10.1023/B:LING.0000023371.15460.43



Caudal, P., & Roussarie, L. (2005). Aspectual viewpoints, speech act functions and discourse structure. In P. Kempchinsky & R. Slabakova (Eds.), Aspectual inquiries (pp. 265–290). Springer.

De Angelis, G. (2007). Third or additional language acquisition. Cromwell Press.

Declerck, R. (2006). The grammar of the English verb phrase. Volume 1: The grammar of the English tense system. A comprehensive analysis. De Gruyter.

Diaubalick, T., & Guijarro-Fuentes, P. (2016). How do German speakers acquire the tense-aspectsystem in Spanish as a second language? An empirical study. In P. Guijarro-Fuentes, M. Juan-Garau, & P. Larrañaga (Eds.), Acquisition of romance languages. Old acquisition challenges and new explanations from a generative perspective (pp. 171–197). De Gruyter.

Diaubalick, T., & Guijarro-Fuentes, P. (2017). L1 effects as manifestations of individual differences in the L2 acquisition of the Spanish tense-aspect-system. In K. Bellamy, M. W. Child, P. González, A. Muntendam, & M. C. Parafita Couto (Eds.), Multidisciplinary approaches to bilingualism in the hispanic and lusophone world (pp. 9-40). Benjamins.

Diaubalick, T., & Guijarro-Fuentes, P. (2019). The strength of L1 effects on tense and aspect: How German learners of L2 Spanish deal with acquisitional problems. Language Acquisition, 26(3), 282-301. https://doi.org/10.1080/10489223.2018.1554663

Doiz-Bienzobas, A. (1995). The preterit and the imperfect in Spanish: Past situation vs. past viewpoint [Unpublished doctoral dissertation]. University of California.

Eibensteiner, L. (2017). Didaktisierung der spanischen Vergangenheitstempora. An der Schnittstelle von Wissenschaft und Praxis. In A. Corti & J. Wolf (Eds.), Romanistische Fachdidaktik. Grundlagen – Theorien – Methoden (pp. 202–215). Waxmann.

Eibensteiner, L. (2019). Transfer in L3 acquisition: How does L2 aspectual knowledge in English influence the acquisition of L3 Spanish among German-speaking learners? Dutch Journal of Applied Linguistics, 8(1), 67–83. https://doi.org/10.1075/dujal.19003.eib

Falk, Y., & Bardel, C. (2011). Object pronouns in German L3 syntax: Evidence for the L2 status factor. Second Language Research, 27(1), 59-82. https://doi.org/10.1177/0267658310386647

Fessi, I. (2014). Influencias interlingüísticas: desarrollos recientes. Transferencia en adquisición de tiempo y aspecto en español 3. *MarcoELE*, 19, no pagination.

Foote, R. (2009). Transfer in L3 acquisition: The role of typology. In Y. I. Leung (Ed.), Third language acquisition and universal grammar (pp. 89-114). Multilingual Matters.

García Fernández, L., & Camus Bergareche, B. (Eds.). (2004). El pretérito imperfecto. Gredos.

Grevisse, M. (1986). Le bon usage. Grammaire française. Duculot.

Haßler, G. (2016). Temporalität, Aspektualität und Modalität in romanischen Sprachen. de Gruyter.

Heinold, S. (2015). Tempus, Modus und Aspekt im Deutschen. Ein Studienbuch. Narr.

Hirosh, Z., & Degani, T. (2018). Direct and indirect effects of multilingualism on novel language learning: An integrative review. Psychonomic Bulletin & Review, 25(3), 892-916. https://doi.org/10.3758/ s13423-017-1315-7

Izquierdo, J., & Collins, L. (2008). The facilitative role of L1 influence in tense-aspect marking: A comparison of hispanophone and anglophone learners of French. The Modern Language Journal, 92 (3), 350-368. https://doi.org/10.1111/j.1540-4781.2008.00751.x

Jarvis, S., & Pavlenko, A. (2010). Crosslinguistic influence in language and cognition. Routledge.

Kellerman, E. (1983). Now you see it, now you don't. In S. Gass & L. Selinker (Eds.), Language transfer in language learning (pp. 112–134). Newbury House.

Klein, W. (1994). Time in language. Routledge.

Lavado, J. (Quino) (1986). The world of quino. Holt.

McManus, K. (2015). L1/L2 differences in the acquisition of form-meaning pairings: A comparison of English and German learners of French. The Canadian Modern Language Review, 71(2), 51-77. https://doi.org/10.3138/cmlr.2070.51

Michaelis, L. (2004). Type shifting in construction grammar: An integrated approach to aspectual coercion. Cognitive Linguistics, 15(1), 1-67. https://doi.org/10.1515/cogl.2004.001

Odlin, T. (1989). Language transfer: Cross-linguistic influence in language learning. Cambridge University Press.

Real Academia Española. (2009). Nueva Gramática de la lengua española. Espasa-Calpe.



- Rothman, J. (2015). Linguistic and cognitive motivations for the Typological Primacy Model (TPM) of third language (L3) transfer: Timing of acquisition and proficiency considered. Bilingualism: Language and Cognition, 18(2), 179–190. https://doi.org/10.1017/S136672891300059X
- Salaberry, M. R. (2005). Evidence for transfer of knowledge of aspect from L2 Spanish to L3 Portuguese. In D. Ayoun & R. Salaberry (Eds.), *Tense and aspect in romance languages: Theoretical and applied perspectives* (pp. 179–210). Benjamins.
- Salaberry, M. R. (2008). Marking past tense in second language acquisition. A theoretical model. Continuum.
- Salaberry, M. R. (2011). Assessing the effect of lexical aspect and grounding on the acquisition of L2 Spanish past tense morphology among L1 English speaker. *Bilingualism: Language and Cognition*, 14(2), 184–202. https://doi.org/10.1017/S1366728910000052
- Salaberry, M. R. (2013). Contrasting Preterite and Imperfect use among advanced L2 learners: Judgments of iterated eventualities in Spanish. *International Review of Applied Linguistics in Language Teaching*, *51*(3), 243–270. https://doi.org/10.1515/iral-2013-0011
- Salaberry, M. R., & Ayoun, D. (2005). The development of L2 tense-aspect in the Romance languages. In D. Ayoun & R. Salaberry (Eds.), *Tense and aspect in Romance languages: Theoretical and applied perspectives* (pp. 1–33). Benjamins.
- Slabakova, R., & Montrul, S. (2007). L2 acquisition at the grammar-discourse interface: Aspectual shifts in L2 Spanish. In J. Liceras, H. Zobl, & H. Goodluck (Eds.), *The role of formal features in second language acquisition* (pp. 452–483). Mahwah, NJ: Lawrence Erlbaum Associates.
- Smith, C. (1997). The parameter of aspect. Kluwer Academic Publishers.
- Squartini, M., & Bertinetto, P. M. (2000). The simple and compound past in Romance languages. In Ö Dahl (Ed.), *Empirical Approaches to Language Typology (EALT) Tense and aspect in the languages of Europe* (pp. 403–439). De Gruyter.
- Tagliamonte, S., & Lawrence, H. (2000). I used to dance, but I don't dance now". The habitual past in English. *Journal of English Linguistics*, 28(4), 324–353. https://doi.org/10.1177/007542420002800402
- Tremblay, M.-C. (2006). Cross-linguistic influence in third language acquisition: The role of L2 proficiency and L2 exposure. *Cahiers Linguistiques d'Ottawa*, *34*, 109–119.
- Ullman, M. (2001). The neural basis of lexicon and grammar in first and second language: The declarative/procedural model. *Bilingualism: Language and Cognition*, 4(1), 105–122. https://doi.org/10.1017/S1366728901000220
- Vendler, Z. (1957). Verbs and times. *The Philosophical Review*, 66(2), 143–160. https://doi.org/10. 2307/2182371
- Williams, S., & Hammarberg, B. (1998). Language switches in L3 production: Implications for a polyglot speaking model. *Applied Linguistics*, *19*(3), 295–333. https://doi.org/10.1093/applin/19.3.295



Appendix. Narrative text of Quino's cartoon

Ayer {fui/iba} a visitar la antigua casa de mi abuelo. {Fue/Era} la casa en la que {pasé/pasaba} muchas horas felices de mi infancia. La casa (estuvo/estaba) abandonada, pero todavía (tuvo/ tenía} muchos recuerdos de las veces que {visité/visitaba} a mi abuelo.

Al entrar {vi/veía} la mecedora y de inmediato {me acordé/me acordaba} de las veces cuando mi abuelo {me hamacó/me hamacaba} y mi mamá {tomó/tomaba} té. {Fue/Era} una época maravillosa.

En ese momento {quise/quería} ver el resto de la casa. Así es que {continué/continuaba} caminando por la casa y {vi/veía} un carrito.

{Fue/Era} el carrito al que {até/ataba} a mi abuelo. Él {hizo/hacía} el papel de caballo y me {llevó/llevaba} por la casa, mientras mi papá {leyó/leía} el periódico. ¡Ah! {Fueron/Eran} años de infancia hermosos.

Entonces **(quise/quería)** explorar más y **(fui/iba)** al altillo en el que **(hubo/había)** ropa de indio y un arco con flechas. Cuando {visité/visitaba} a mi abuelo {me puse/me ponía} la ropa de indio y {juqué/juqaba} con mi abuelo. Él {fue/era} mi prisionero y yo {fui/era} un indio armado con arco y flecha. Lo {até/ataba} a una columna del altillo y {jugamos/jugábamos} por horas y horas hasta que {se hizo/se hacía} de noche.

{Fue/Era} en ese momento que me {di cuenta/daba cuenta} de que la última vez que {jugué/ jugaba} con él, ¡{me olvidé/me olvidaba} de desatarlo! {Fui/lba} a buscarlo donde {estuvo/ estaba} aquella columna.

{Subí/Subía} las escaleras a toda prisa, y entonces {encontré/encontraba} a mi abuelo. ¡Qué horror! Allí {estuvo/estaba} el esqueleto de mi abuelo atado a la columna.