The L2 Acquisition of Variable Perfective Past Time Reference in Spanish in an Overseas Immersion Setting

Kimberly L. Geeslin¹, Lorenzo J. García-Amaya², Maria Hasler-Barker¹, Nicholas C. Henriksen³, and Jason Killam⁴

Indiana University¹, University of Alabama at Birmingham², Northern Illinois University³, and Indiana University of Pennsylvania⁴

1. Introduction

Research on the effects of learning context on the process of second language acquisition of Spanish has grown over the past two decades, exploring the development of a range of grammatical structures and the social and individual factors related to the learning context that may influence acquisition (see Collentine, 2004; Collentine & Freed, 2004; Lafford, 2006). Recent innovations include a focus on structures that were not previously examined in second language acquisition research (e.g., intonation in Henriksen, Geeslin, & Willis, 2010), a variety of elicitation instruments, rather than reliance solely on interview data (e.g., Geeslin, García-Amaya, Hasler-Barker, Henriksen, & Killam, 2010), and a focus on the acquisition of sociolinguistic as well as grammatical competence (Geeslin, 2011). Although none of these recent studies has as its primary goal the comparison between at home (AH) and study abroad (SA) learners, each has contributed to our understanding of the language acquisition that takes place during immersion stays in a target environment. In keeping with this, the first goal of the current study is to examine the development of perfective past time marking in second language Spanish during an immersion stay in León, Spain.

The second language (L2) acquisition of tense and aspect has been the object of considerable research attention (see Bardovi-Harlig (2000) for a comprehensive review). Nevertheless, the primary focus on research in Spanish has been on the contrast between the preterit and imperfect forms in past time contexts (Cadierno, 2000; Liskin-Gasparro, 2000). What has not been studied in L2 Spanish to date is the acquisition and use of the present perfect which, like the preterit, indicates perfective past time reference. Thus, the second research goal of the current project is to expand our knowledge of the use of this form, relative to the use of the preterit forms in L2 Spanish.

One characteristic of the present perfect in native Spanish that creates additional challenges for the L2 researcher is that its use varies according to social, linguistic and geographic features of the discourse context. Sociolinguistic research has shown that the present perfect is contrasted with the imperfect to advance the action in a narrative and is used more frequently in contexts that have current relevance and those that take place in more recent contexts, such as events that take place the same day (Howe & Schwenter, 2008; Schwenter, 1994). In addition, research on the use of this form in several dialect areas in Spain, Argentina (SA) and Mexico City has demonstrated that rates of use and the factors that predict this use differ geographically (Howe & Schwenter, 2008; Kempas, 2006; Schwenter & Torres-Cacoullos, 2008). In other words, the target norm for language learners is variable and prescriptive rules about the use of this form fail to capture the variability in the input that learners receive. Given the variable nature of native speaker use of the present perfect, a third goal of the current study is to connect our findings to the body of research that already exists on the L2 acquisition of variable structures in Spanish (see Geeslin, 2011 for a review).

The current study was designed to examine each of these three issues: the effects of learning context; the development of perfective past time reference; and the second language acquisition of sociolinguistic variation. In order to do so, our data were collected at three points in time during a 7-
week immersion program in Spain, thereby allowing us to examine learner selection of the present perfect before, during and after the immersion experience. Not only does this research site allow us to examine the degree to which learner grammars change over the course of an immersion experience, it is especially appropriate given the association of Spain with a higher frequency of use of the present perfect and differing constraints on that use (Howe & Schwenter, 2008; Kempas, 2006; Schwenter, 1994). Our paper begins with a brief review of relevant research on study abroad, L2 variation, use of the present perfect by native speakers and its acquisition by English-speaking learners of Spanish. We then continue with a description of the current empirical study we conducted on this topic and a discussion of the results and their implications.

2. The research context

2.1. The study abroad context and second language learning

Previous studies on Spanish SLA have focused on the SA context in isolation or a comparison between the SA setting and the college foreign language classroom, also known as an at-home (AH) context (e.g., Díaz-Campos, 2004; Díaz-Campos & Lazar, 2003; Lafford, 2004; Lafford & Collentine, 2006; Segalowitz, Freed, Collentine, Lafford, Lazar, & Díaz-Campos, 2004). Only recently have researchers started to investigate the effects of SLA on intensive immersion (IM), both US-based and overseas, of durations shorter than the typical semester or year abroad (Segalowitz and Dewey, 2004; García-Amaya, 2008; 2009; 2010; 2011; García-Amaya & Filgueras-Gómez, 2010; Geeslin et al., 2010). Among the many factors that differentiate these learning contexts are enrollment prerequisites, program duration, amount of instruction, location, and opportunities to interact with native speakers. When compared to the AH context, SA and IM have overall been considered contexts with more resources for greater L2 acquisition (Freed, 1995). Indeed, Carroll (1967), which is the first large-scale study addressing the differences between the AH and SA learners of a variety of Indo-European languages including Spanish, finds positive gains for learners in the areas of listening, speaking, reading and writing, even for short stays abroad. However, when each linguistic skill is investigated in isolation, the sometimes contradictory results found in the literature are indication that perhaps the AH and SA umbrella denominations have been used too broadly, without clearly detailing the factors (listed above) that differentiate these learning environments.

Among the linguistic skills that seem to receive consistent gains in the SA and IM contexts over AH is L2 oral production, more specifically, higher fluency or the ability to speak at a faster rate of speech (e.g., syllables per second, or words per minute), with less filled pauses per second, less hesitations and decreased production of silent pauses (DeKeyser, 1986; García-Amaya, 2008; 2009; 2010; 2011; García-Amaya & Filgueras-Gómez, 2010; Segalowitz & Freed, 2004). García-Amaya (2009) compared the oral performance of learners from three learning contexts: those who participated in a semester-long SA program in Spain; those who participated in a semester-long AH class; and those who participated in 7-week IM program (similar to the one in the current study). He found that IM learners were superior to the SA and AH learners on rate of speech, but not on the amount of words produced (i.e., SA learners produced more words overall). Freed, Segalowitz, and Dewey (2004) studied IM L2 learners of French, although the IM setting in their study was US-based. In spite of this difference, IM learners showed a faster mean rate of speech by the end of their language program.

Another linguistic aspect that seems to benefit from the SA context is pronunciation. Díaz-Campos (2006), Lord (2010) and Stevens (2001) report that SA participants show improvements over AH learners in their pronunciation on conversational tasks in Spanish. Other aspects investigated in L2 contexts of learning research include proficiency (or grammatical ability), lexical acquisition, narrative abilities and pragmatic abilities (see Lafford (2006) for a thorough review of the effects of learning context in these particular areas). To exemplify, SA learners in Isabelli and Nishida (2005) were more accurate in their oral production of the subjunctive than their AH cohorts, although the process of acquisition was clearly incomplete for both groups. Collentine (2004) studied 17 morphological, syntactic and lexical variables and found that AH learners outperform SA participants in morphosyntactic areas that are typically emphasized in a standard Spanish curriculum (e.g., verb conjugations and subordinate conjunctions). On the other hand, SA participants outperform AH learners in their narrative abilities. In a case study, Lord (2009) notes that individual characteristics...
such as motivation and learning situation appear to have an effect on the development of written grammatical accuracy and written fluency. Though research on L2 context of learning generally points to gains by SA participants, Segalowitz and Freed (2004) conclude that gains in oral proficiency may be related to cognitive readiness such as the ability to make word-meaning connections quickly. More psycholinguistic approaches to this line of research include research on working memory by Sunderman and Kroll (2009) and Linck, Kroll and Sunderman (2009). Thus, it may be that the readiness of the learner plays a role in the effectiveness of the SA experience.

In sum, research on SA has examined constructs such as fluency, pronunciation, sociolinguistic competence, narrative and discourse abilities, vocabulary and grammar. While some research has shown clear advantages for the SA context, other research results have been inconsistent or have shown the AH context to be more beneficial. Because results have been mixed, investigations that focus on the development of specific characteristics of grammar, rather than overall proficiency during a SA experience, stand to provide the most accurate picture of the effects of learning context on SLA.

2.2. The SLA of variable structures in Spanish

For several areas of Spanish grammar, the input language learners receive is variable, either across geographic regions or social groups, or both. This adds a challenge to the study of the acquisition of grammar structures in a SA context because the input prior to SA may not match the input in the target environment. In Spanish, some of the variable grammatical structures studied include the use of ser/estar, the indicative/subjunctive contrast, subject expression, future expression and direct object pronoun contrast (see Geeslin, 2011 for a review). Research in this area required methodological innovations because researchers cannot code a response as correct or incorrect. The need for such innovation is even more evident in SA contexts. When learners study abroad, they encounter structures that do not match the prescriptive norms taught in the classroom. For instance, in Spain, it is considered acceptable to use the indirect object pronoun le ‘him, her’ in place of the direct object pronoun lo ‘him’ and to a lesser extent la ‘her’. In these cases, SLA has benefited from the application of the variationist framework that employs multifeature analyses to describe learner use of a variant (Preston, 1993; 2000). Sociolinguistic studies beginning with Labov (1966) have described language use based on linguistic, social and other extralinguistic factors. In doing so, sociolinguists have found that language use is systematic. This means that speakers conform to probabilistic patterns of use based on linguistic and extralinguistic factors.

The application of sociolinguistic methods to the study of L2 acquisition has enabled researchers to demonstrate systematicity in learner interlanguage as well. For example, Adamson and Regan (1991) studied factors affecting the use of non-standard /iŋ/ by native Cambodian and Vietnamese speakers learning English. The research on the variable use of ‘-ing’ among native English speakers showed that /iŋ/ use was conditioned by the social variables of socioeconomic class, sex and speech style and linguistic variables of phonological environment and syntactic word class. Using this as a point of comparison, Adamson and Regan found several extralinguistic and linguistic factors that described these learners’ use of [In] or [In]. First, just as native speaking males produce more [In] than females, the Cambodian and Vietnamese males also used [In] more than the English-speaking native or non-native females. Second, the degree of formality also played a role in the use of the variants with all speakers using more [In] in the informal speech style with the exception of the non-native males. It was hypothesized that this is because [In] is the L1 norm for Vietnamese and Cambodians and when less attention is paid to speech, these speakers transferred their L1 norm. Finally, grammatical category played a role as well. Though not mirroring native English-speaker use perfectly, [In] was highest for both natives and non-natives with future verb morphology. In another classic study, Berdan (1996) reanalyzed the interlanguage data elicited and originally analyzed by Schumann (1976) from Alberto, an adult Spanish-speaking learner of English. Berdan showed that linguistic and extralinguistic factors described Alberto’s acquisition of negation particle ‘don’t’. The reanalysis revealed that the linguistic factor of subject noun phrase (i.e. first person singular pronoun, other pronouns, null NPs) influenced the use of ‘no’ versus ‘don’t’. The extralinguistic variables ‘time’ (i.e., stage of development) and ‘style’ were also manipulated in a series of regression analyses, and Berdan observed differences
among models that only included linguistic factors and others that included both linguistic and extralinguistic factors in the acquisition of English negation.

In Spanish, the SLA of variable structures has been explored in a number of studies. These investigations include a range of participants, from instructed learners without study abroad experience, to learners with study abroad experience and to naturalistic learners and have covered a range of grammatical structures. Geeslin (2000) studied copula choice (i.e. *ser* ‘to be’ and *est*ar ‘to be’) among 77 classroom-instructed learners of four different proficiency levels. She found that the same 10 discourse features that describe native Spanish-speaker use of *estar* were predictive of non-native speaker use to varying degrees depending on learner level. Geeslin (2003) studied advanced learners who had studied abroad for at least four months. Though frequencies of copula use were more similar between the advanced learners and native speakers than the advanced learners and the lower level learners in Geeslin (2000), subtle differences existed. The description of native Spanish-speaker copula selection included lexical and semantic constraints that were not significant in describing advanced learners while additional pragmatic constraints described learner copula selection. Geeslin and Guijarro-Fuentes (2006) studied the copula contrast among naturalistic learners living in Spain. These native Portuguese speakers showed L1 influence in their frequency of selection of the copulas, but there were differences in the predictors of this choice that did not match either their L1 or the L2 target. In related research, such as Gudmestad (2006; 2008), the variables that predict the use of the subjunctive were found to be similar between learners and native-speakers, but the frequency of subjunctive use was much higher among native-speakers than learners even at the advanced level. It was only at the highest learner level that a similarity was reached for both frequency of use and the variables that predict selection. Geeslin and Gudmestad (2008; 2010) studied the distribution of subject expression forms among native speakers of Spanish and highly advanced non-native learners. Even at a high level of language proficiency, the frequency of use of forms was significantly different between the two groups. Other SLA studies of variable structures have provided insights regarding the ways sociolinguistic variation describes learner acquisition. These include studies on direct object pronouns (Geeslin et al., 2010), future expression (Gudmestad & Geeslin, forthcoming), intonation (Henriksen, Geeslin, & Willis, 2010) and allophonic variation (Schmidt, 2009). In each of these studies, the application of variationist methodology to the study of the L2 acquisition of variable structures has provided greater detail of learner language than was previously available. The goal of the current study is to further expand the range of grammatical structures examined under this approach to include perfective past time reference.

2.3. Spanish perfective past time reference and NS use

Both the preterit (fui ‘I went’) and present perfect (he ido ‘I have gone’) can be used to express perfectivity with past time reference. According to recent grammars (Butt & Benjamin, 2004), the two forms are distinguished in a variety of ways. First, the present perfect denotes events that occur at a time that includes the present (i.e., today, this week, this year, this century, etc.) and events that are relevant in the present. Second, the perfect of recency – frequent in European Spanish – is generally used with very recent events, describing something that has happened since midnight (e.g., He ido al cine ‘I have gone to the movies’).

A number of studies have described native speaker use of perfective past time reference in several Spanish-speaking countries. Schwenter (1994) described perfective past time reference in Alicante, Spain. Results showed that speakers selected the preterit over present perfect to describe an event in prehodiernal (before today) contexts, whereas in contexts lacking a specific time reference use was more variable. The imperfect contrasted with the present perfect (rather than the preterit) in order to contrast background information from foreground information in the main story line (also Howe, 2007). While retaining its commonly cited grammatical function of anteriority (i.e., relevance to the current moment), Schwenter (1994) finds that the present perfect has expanded its role to become a marker of perfectivity as well. Kempas (2006) compared the use of the present perfect in Peninsular Spanish and that of Santiago del Estero, Argentina. First, he found a clear difference between hodiernal (i.e. today) and prehodiernal (i.e. before today) contexts. Second, he found that the present
perfect has extended its reach as a perfective marker in Santiago del Ester o to include prehodiernal contexts.

Howe and Schwenter (2008) compared the use of the present perfect of Lima, Peru and Madrid, Spain. The study included several factors that had previously been understudied, such as indeterminate (i.e. temporal reference is left unspecified but not necessarily irrelevant) and irrelevant (i.e. temporal reference cannot be requested by ‘when?’) temporal reference. The data from Lima showed a similarity in the factor weights for indeterminate and irrelevant temporal reference compared to the data from Spain. In Lima, the weights for the factor group temporal reference included indeterminate (.92), irrelevant (.91) and before today (.24). However, they proposed that because the raw frequencies were different, it was necessary to compare the combined effect of the corrected mean plus the factor weight. When this combined effect was taken into account, the internal constraints governing the distribution of the present perfect and the preterit in Lima were shown to be clearly distinct from those noted for Peninsular Spanish. The combined effect showed a drop to (.66) for irrelevant contexts and (.68) for indeterminate contexts in Lima while in Madrid, the combined effect for irrelevant contexts remained high at (.95) and (.75) for indeterminate contexts. Unfortunately, there were not enough hodiernal contexts in the Lima corpus to compare present perfect usage between Lima and Madrid. The same type of methodology was used in Schwenter and Torres Cacoullos (2008) to compare the use of the present perfect in Mexico City and Madrid. When observing the combined effect of the corrected mean plus factor weight for Mexico City, none of the linguistic features studied showed an effect favoring present perfect usage. The general results of these findings were that the present perfect shift to perfective use in Peninsular Spanish is advancing in contexts not specified for temporal reference (i.e., temporally indeterminate past contexts) as well as in hodiernal contexts, thus becoming established as a perfective marker in ways that are distinct from the advancement seen in Lima and not found in Mexico. From this sociolinguistic research, one notes the importance of several independent linguistic variables in describing the use of the present perfect. These include the time of the event, the relationship of the event to previous events, and the connection of the event to the distribution of background and foregrounded information. As will be seen later, these factors were taken into account in the research design of the current study.

2.4. The L2 acquisition of perfective past time reference

L2 acquisition studies of perfective past time reference have largely been concerned with the distinction between perfective and imperfective aspect (Camps, 2000; Salaberry, 2000; Salaberry & López-Ortega, 1998). Bardovi-Harlig (1998) found that both the discourse hypothesis and the aspect hypothesis describe the acquisition of tense-aspect morphology for L2 learners. The discourse hypothesis describes how learners develop verbal morphology to distinguish foreground from background in narratives. The aspect hypothesis describes the path of acquisition of morphological aspect based on lexical verb aspect. Learners first acquire perfective grammatical aspect with telic predicates. Then, learners begin the acquisition of imperfective grammatical aspect with atelic predicates. The discourse hypothesis and the aspect hypothesis also hold true for L2 learners of Spanish (Cadierno, 2000; Liskin-Gasparro, 2000). While gains have been made in our understanding of the acquisition of past tense aspect, we know little about the various forms for marking perfective past time reference. Based on the existing research, however, we hypothesize that telicity will also play a role in the L2 acquisition of the present perfect.

2.5. Summary of research on perfective past time reference

To review, the sociolinguistic literature points to several linguistic variables that explain the use of the present perfect or the preterit. First, as Schwenter and Torres-Cacoullos (2008) describe the diachronic change in progress taking place in Spain, the present perfect first fulfilled the role of marking ‘anteriority’. This variable describes the predicate as having consequences in the present. Second, the present perfect affects what we have denoted as ‘the time of action’ variable (Kempas, 2006). This variable is concerned with when the action of the predicate occurred. In Spain, the present perfect has been found to replace the preterit as the default perfective marker of hodiernal contexts.
while the preterit still serves as the marker for prehodiernal contexts. Third, the present perfect serves as a marker of foregrounding and contrasts with the imperfect (i.e., background information) in discourse (Howe, 2007; Schwenter, 1994). Finally, lexical aspect has shown mixed results in the sociolinguistic literature. In Schwenter and Torres-Cacoullos (2008) durative contexts favor present perfect marking in the Mexico corpus. On the contrary, the factor group of lexical aspect is not selected as a predictor of the data from the Spain corpus. Despite these mixed results, it has been shown in several acquisition studies that lexical aspect describes learner selection of preterit/imperfect verbal morphology (Bardovi-Harlig, 1998; Cadierno, 2000; Liskin-Gasparro, 2000) and is also related to the use of object pronouns (Geeslin et al., 2010) and the present progressive (Geeslin & Fafulas, forthcoming). Consequently, lexical aspect warrants further attention in the current study as well.

3. The current study

As is clear from the preceding review, there is a relative lack of understanding of the use of the present perfect by second language learners as compared to the detailed information available regarding how NSs employ this form. Thus, the present study aims to answer the following research questions:

1) What changes in frequency choice of the present perfect and the preterit forms can be found across time in a study abroad immersion program?
2) What linguistic and social variables predict this choice across time?
3) How does this compare to that of native speakers in the same region?

3.1. Participants

The NNS participants in the present study were 33 third-year high school students (12 males, 21 females, all age 17) participating in a 7-week intensive home-stay immersion program in León, Spain. The learners had culture, grammar, literature, conversation and pronunciation classes five days a week. The classes were taught by two NSs and two advanced NNSs of Spanish. In addition to attending daily classes in Spanish and participating in program activities in Spanish, the students signed a contract in which they agreed not to speak English for the duration of the program. The intensive nature of the program combined with the students’ commitment to speak only Spanish allowed for greater change over seven weeks than might be expected from a program in which participants socialize in English outside of class.

Twenty-four native speakers from León, Spain, provided NS data for comparison. The ten male and 14 female participants ranged in age from 20-30 years old. The NSs were recruited from the same school where the NNSs took their classes and were similar to the NNS participants in terms of level of education and socioeconomic class.

3.2. Elicitation tasks

All participants completed a background questionnaire and one or more written contextualized tasks (WCTs). Three WCTs were created, using the same linguistic constraints on each but changing the lexical items themselves to reduce the possibility of a learning effect on the task itself. The NNS group completed all three WCTs, one during week 1 of their stay, one during week 4, and the final WCT during week 7 of their stay in León. The NS group completed the third version only of the WCT along with a background questionnaire. The NNS group completed a level test at the beginning and end of the abroad experience in addition to the WCTs and background questionnaire. Each of these instruments is described in greater detail below.

3.2.1. Level test and background questionnaire

NNS participants completed a multiple-choice level test to provide an objective measure of their prescriptive grammatical knowledge. The test consisted of 11 items covering a variety of grammatical
structures typically included in formal instruction of Spanish. The level test has previously been shown to be statistically reliable (Woolsey, 2006). The background questionnaire was designed to elicit information about the conventionally relevant sociolinguistic variables, including speaker sex and socioeconomic class, in addition to providing information about the language learning experience of the NNS participants. The data from this instrument were used to provide the preceding description of our NS and NNS participants. In addition, each token was coded for several extralinguistic variables that reflect these individual characteristics. These variables include: the final proficiency score (at Time 3); the change in proficiency score from Time 1 to Time 3; knowledge of other languages; number of years of previous study; and additional experience abroad. In the case of the first three variables, the mean was located and learners were divided into two groups so that the ‘top half’ could be compared to the ‘bottom half’ using a categorical variable, rather than a scalar numerical variable.

3.2.2. Written contextualized task

The WCT instrument designed for the current investigation follows the methodology of several previous studies on the L2 acquisition of variable structures, such as the acquisition of copula choice, subjunctive, and direct object pronouns (Geeslin, 2003; Geeslin et al., 2010; Gudmestad, 2006). The task was designed to ensure equal distribution of all combinations of the categories of the independent linguistic variables included in the study: time of action; telicity; anteriority; and background information. These variables were derived from previous research on NS use of the present perfect. The definitions and categories of variables are summarized in Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>Example</th>
<th>Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of action</td>
<td>[one hour ago]</td>
<td>He tomado un café hace una hora.</td>
<td>How long ago did the predicate occur?¹</td>
</tr>
<tr>
<td></td>
<td>[today]</td>
<td>He tomado un café esta mañana.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[one week ago]</td>
<td>He tomado un café la semana pasada.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[one year ago or more]</td>
<td>He tomado un café el año pasado.</td>
<td></td>
</tr>
<tr>
<td>Telicity</td>
<td>[+ telic]</td>
<td>He tomado un café.</td>
<td>Does the predicate have endpoints (i.e., telic)?</td>
</tr>
<tr>
<td></td>
<td>[- telic]</td>
<td>He tomado café.</td>
<td></td>
</tr>
<tr>
<td>Anteriority</td>
<td>[+ anterior]</td>
<td>Juan ha corrido cinco millas, y todavía se siente bien.</td>
<td>Does the predicate have explicit consequences in the present?</td>
</tr>
<tr>
<td></td>
<td>[- anterior]</td>
<td>Juan ha corrido cinco millas.</td>
<td></td>
</tr>
<tr>
<td>Background information</td>
<td>[+ background]</td>
<td>Como hacía buen tiempo, Juan ha corrido cinco millas.</td>
<td>Is the predicate accompanied by another predicate in the imperfect?</td>
</tr>
<tr>
<td></td>
<td>[- background]</td>
<td>Juan ha corrido cinco millas.</td>
<td></td>
</tr>
</tbody>
</table>

Each WCT consisted of a dialogue between two speakers, which created the discourse context for individual items. Each item contained a past time reference that was designed to represent a single combination of the categories of the independent linguistic variables. Because the WCT instrument was lengthy, each possible combination appeared only once in the task. Items contained two possible answers, differing only in the form of past perfective construction (i.e., preterit vs. present perfect).

¹ ‘Today’ does not always include the time of action. This usage is particular to Spain only if it does not include the time of action.
Learners read the context and were asked to indicate whether they preferred the first answer, the second answer, or both answers (see Figure 1). The coding for the sample item in Figure 1 is: [one week ago], [+telic], [-anterior], and [-background].

<table>
<thead>
<tr>
<th>Manual sigue con la historia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Manuel: Pues, la semana pasada Vicente se ha chocado (crash) con un coche.</td>
</tr>
<tr>
<td>B. Manuel: Pues, la semana pasada Vicente se chocó (crash) con un coche.</td>
</tr>
</tbody>
</table>

Figure 1. Sample Test Item.

3.3. Procedure

Initial data analysis consisted of the tabulation of the form of perfective time reference selected for each item at each test time. Following the initial analysis, the forms were collapsed into two categories: present perfect allowed and present perfect not allowed. The present perfect allowed category incorporated selection of the present perfect as well as selection of the response both. The variables were collapsed in this manner in order to allow for the examination of the contexts where the present perfect was permissible. After collapsing the dependent variable, the frequency of the two response categories was recalculated. Chi-square ($X^2$) tests were run to determine whether changes in frequency across time and frequency differences between NSs and NNSs were statistically significant.

In addition to the previously mentioned independent linguistic variables, learner responses were coded for several independent individual variables. These extralinguistic variables include: knowledge of other languages; additional experience abroad; years of study of Spanish (3-4, 5 or more); improvement on level test (improved 1 point or less; improved by 2 or more points); and final score on level test (10-11, 9 or below). In order to determine the relative influence of linguistic and extralinguistic variables on perfective past time reference selection, regression analyses were used to identify predictors of the dependent variable. The Statistical Package for the Social Sciences (SPSS) 18.0 was used to run all statistical tests.

4. Results

The current section begins with a presentation of the results for the level test and continues with the results for the tabulation of the participant responses at each test time. Both the complete results and the results for the collapsed dependent variable are provided. In addition, we provide the results for the statistical tests conducted to determine the degree to which apparent differences across test times and participant groups are significant. The section concludes with a presentation of the results for the regression analyses that consider the best predictors of response form for each participant group at each test time. The implications of these findings will be discussed in Section 5.

4.1. Level test

The results of the level test appear in Table 2. The information provided there summarizes the results for the L2 learners at two times: Time 1, right after the learners arrived in León; and Time 3, during the sixth week of the stay abroad. It will be recalled that the level test contained 11 items and the scores reported here reflect the number of accurate responses out of 11. The results show that the average score improves from 8.24 to 9.76, and a chi-square test confirms that this difference is significant ($X^2=17.991$, $df=7$, Cramer’s $V=0.522$, $p=0.012$). In other words, our learners demonstrate gains in their prescriptive grammatical knowledge over the course of their immersion experience.
4.2. Frequency of selection of each form

Once the data were collected, a tabulation was conducted of the frequency of selection of each response type at each elicitation time, allowing us to determine whether the choice of perfective past time reference forms varied based on data elicitation time. Raw scores and percentages of frequency of selection across three times for the NNSs and at time three for the NSs were computed and are presented in Table 3. Overall, these data show that both speaker groups selected the preterit more frequently than the present perfect at all times. The NNSs selected the preterit with equal frequency at Times 1 and 2 (59.9% and 60.0%, respectively), but then demonstrated higher rates of selection of this form at Time 3 (up to 65.2%). At no time, however, did NNS use of the preterit reach the NS norm of 70.5%. Nevertheless, the NNS rates of selection of the present perfect alone (as opposed to the “both” response) were not always higher than those of the NSs. NNS selection of the present perfect increased from Time 1 to Time 2 (24.4% to 28.0%), whereas the NS rate of selection of the present perfect was 21.0%. NNSs decreased rates of selection of the present perfect at Time 3, however, to 17.2%. As for the both category, NNSs selected this option 15.7 percent of the time at Time 1, decreasing to 12 percent at Time 2, but then increased again at Time 3 (17.5%). The NSs marked the both option at a lower rate, or 8.5%.

Because the current study was designed to examine constraints on the use of the present perfect form in perfective past time contexts, it is helpful to collapse the dependent variable into two categories: present perfect allowed and present perfect not allowed. This is accomplished by collapsing the present perfect and both responses into one category (present perfect allowed) and keeping the preterit responses as another (present perfect not allowed). This is consistent with other research that has sought to explore the expansion of use of one form into the territory formerly occupied by another and it also meets the requirement for the additional statistical analyses that were conducted (see Section 4.3). The data in Table 4 show the distribution of responses for the collapsed dependent variable at all three times for the NNSs and for the NSs at Time 3. The results indicate that NNSs allow the present perfect at nearly equal rates at Time 1 and Time 2 (40.2% and 40.0%, respectively), but decrease rates of selection at Time 3 to 34.8%. At no time were NNS rates of selection of present perfect forms as low as that of the NSs, however, which was 29.5%.

Table 2. NNS scores on level test

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>8.24</td>
<td>9.76</td>
</tr>
<tr>
<td>Range</td>
<td>4-11</td>
<td>7-11</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.81</td>
<td>1.07</td>
</tr>
</tbody>
</table>

Note. Maximum score = 11.

Table 3. Frequency of forms chosen by NNSs across time and by NSs

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Preterit</td>
<td>632</td>
<td>59.9</td>
<td>633</td>
<td>60.0</td>
</tr>
<tr>
<td>PP</td>
<td>258</td>
<td>24.4</td>
<td>295</td>
<td>28.0</td>
</tr>
<tr>
<td>Both</td>
<td>166</td>
<td>15.7</td>
<td>127</td>
<td>12.0</td>
</tr>
<tr>
<td>Total</td>
<td>1056</td>
<td>100.0</td>
<td>1055</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4. Frequency of forms chosen by NNSs and by NSs (collapsed dependent variable)

<table>
<thead>
<tr>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
<td>%</td>
</tr>
<tr>
<td>Preterit</td>
<td>632</td>
<td>59.8</td>
<td>633</td>
<td>60.0</td>
</tr>
<tr>
<td>PP</td>
<td>424</td>
<td>40.2</td>
<td>422</td>
<td>40.0</td>
</tr>
<tr>
<td>Total</td>
<td>1056</td>
<td>100.0</td>
<td>1955</td>
<td>100.0</td>
</tr>
</tbody>
</table>
4.3. Predictors of use: the regression analysis

In addition to our analysis of changes in rates of selection of each form across time, we conducted a series of regression analyses in order to identify those independent variables, both linguistic and individual, that best predict the selection of the present perfect for the NNSs (all three test times) and also for the NSs. Table 5 summarizes these results, showing the linguistic and extralinguistic variables that were selected by the statistical model as significant predictors of the present perfect forms. An ‘X’ indicates that a variable was included in the regression model, and an asterisk indicates the level of significance of that predictive factor (additional statistical details for all four regression analyses are provided in the Appendix). Table 5 shows that at Time 1 the linguistic variable telicity and the extralinguistic variable years of study predicted NNS selection of the present perfect. At Time 2, a second linguistic variable, background, was included in the model in addition to telicity and years of study. Improvement on the level test was also included in the model. At Time 3 there were several changes in the predictive model as compared to Time 2. The only linguistic variable included was time of action. Two new extralinguistic variables, final score on the proficiency test and other experience abroad, were added to the model in addition to years of study and improvement on the level test. Finally, when contrasted with the results for the NNSs at Time 3, we see that the NS model includes the same linguistic factor, time of action, but no extralinguistic factors. Thus, while the NNS model is characterized by greater variability across participants, as demonstrated by the role of the extralinguistic factors, by Time 3 the learners have reached a stage of development where they are employing the same linguistic constraint on selection of the present perfect as the NSs.

<table>
<thead>
<tr>
<th>Variable</th>
<th>NNS Time 1</th>
<th>NNS Time 2</th>
<th>NNS Time 3</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of action</td>
<td>***X</td>
<td>***X</td>
<td>***X</td>
<td></td>
</tr>
<tr>
<td>Telicity</td>
<td>***X</td>
<td>***X</td>
<td>***X</td>
<td></td>
</tr>
<tr>
<td>Anteriority</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td>***X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of study</td>
<td>*X</td>
<td>**X</td>
<td>*X</td>
<td></td>
</tr>
<tr>
<td>Other language</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience abroad</td>
<td></td>
<td>***X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvement on level test</td>
<td>n/a</td>
<td>***X</td>
<td>**X</td>
<td></td>
</tr>
<tr>
<td>Final level test score</td>
<td>n/a</td>
<td>***X</td>
<td>**X</td>
<td></td>
</tr>
</tbody>
</table>

Note. *** = p ≤ 0.001; ** = p ≤ 0.01; * = p ≤ 0.05

Finally, we provide additional details for each of the variables found to be significant in the regression models summarized in Table 5. For both Time 1 and Time 2, it was found that telic contexts favored the selection of the preterit, rather than the present perfect. We further found that at Time 2, the effects for the presence of background information were such that the rates of selection of the present perfect were actually lower in contexts with background information. In both cases, the variables that were found to favor the use of the present perfect in some previous sociolinguistic studies showed a favoring effect for the selection of the preterit for the learners in our study. The results for telicity may not be surprising because, although this variable would show a relationship between atelic contexts and the present perfect in Mexico, no such effect would be expected for Spain. Nevertheless, as will be discussed in the next section, we suspect that this is not a question of dialect contact, but rather it is related to the predominant use of the preterit with telic predicates in early stages of acquisition. The factor years of previous study, which distinguished learners with four or fewer years of study from those with five or more years of study, showed that additional years of study led to higher rates of selection of the present perfect at both Time 2 and Time 3. A note of caution is in order, however, because when one examines the data for individual results, there are examples of participants with unusually high (i.e., over 60 percent) and unusually low (i.e., less than 15 percent) rates of
selection in learners in both categories of this variable. In fact, the range of rates of selection at all three test times spans at least 50 points. Nevertheless, an examination of individual results showed that of the 18 learners with only 3 or 4 years of previous experience, 15 showed a reduction in rates of selection of the present perfect over time. In contrast, of the 15 learners that had five or more years of previous experience, only 8 demonstrated a reduction in rates of selection of the present perfect over time. Thus, the apparent trend identified by the regression analysis finds support in the individual data as well.

The extralinguistic variable improvement on the level test was also a significant predictor of selection of the present perfect at Times 2 and 3. Learners who improved only one point or less (including those who did worse at Time 3 than Time 1) showed lower rates of selection of the present perfect than those who improved two or more points. Two additional extralinguistic variables were significant in the predictive model at Time 3. The first of these, the final score on the level test, showed that learners with higher final scores selected the present perfect at higher rates than those with lower final scores. The other extralinguistic variable, experience abroad, showed that learners with prior experience abroad showed higher rates of selection of the present perfect. This result, however, will not be addressed further because only three of the 33 learners in our participant pool had such experience.

The final variable that was significant in the regression models for the learners at Time 3, and the only variable that predicted NS rates of selection of the present perfect was \( \mu_{WLPHRIDFWLRQ} \). In order to see the direction of the effects of the categories of this variable as well as the ways in which NS and NNS rates of selection across the categories of this variable differ, we provide a detailed summary in Table 6. As can be seen, NSs chose the present perfect with greater frequency in the one hour ago and today contexts (48.4% and 48.4%, respectively) than in the last week and year or longer contexts (12.0% and 8.9%, respectively). In contrast with previous sociolinguistic research, these rates of use are lower than anticipated for NSs in Spain and this may be a reflection of the nature of the task itself. As for NNSs, their data were comparable to those of the NSs for the today context (48.5%), but they exhibit lower rates of selection in the one hour ago context (38.3%) and higher rates in the last week and year or longer contexts (24.2% and 28.0%, respectively). This indicates that while learners selected more present perfect than NSs, even at Time 3, they were applying this linguistic variable in a similar way, and need only further reduce the rates of selection of present perfect within the last 2 categories of the variable.

### Table 6. Percent of selection of present perfect across categories of time of action variable for NS and NNS at time 3

<table>
<thead>
<tr>
<th></th>
<th>One hour ago</th>
<th>Today</th>
<th>Last week</th>
<th>Year or longer</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS</td>
<td>48.4</td>
<td>48.4</td>
<td>12.0</td>
<td>8.9</td>
</tr>
<tr>
<td>NNS, Time 3</td>
<td>38.3</td>
<td>48.5</td>
<td>24.2</td>
<td>28.0</td>
</tr>
</tbody>
</table>

#### 4.4. Summary of results

In sum, our longitudinal study has shown that for NSs and for NNSs at all three test times, the rates of selection were higher for the preterit than the present perfect. Furthermore, several linguistic and non-linguistic variables served to predict these patterns of selection. At Time 1, the selection of the present perfect was higher in atelic contexts and for participants with fewer years of previous study. At Time 2, the rates of selection of the present perfect were higher in atelic contexts, contexts where background information was absent, and for participants with additional years of study and greater improvement on the level test. At Time 3, the NNSs show that the linguistic variable time of action constrains selection of the present perfect such that rates of selection are highest in contexts where the action took place that same day. Additionally, participants with additional years of previous language study, experience abroad, greater improvement on the level test and higher final scores on the level test all showed higher rates of selection of the present perfect. Finally, for NSs, the present perfect was selected with greater frequency for recent events than more distant events. The implications of these findings will be discussed in Section 5.
5. Discussion

It will be recalled that the current study was designed to answer three research questions, the first of which asked how the frequency of selection of preterit and present perfect changed over the course of the SA immersion program. Because the overarching interest in this structure stems from its connection to the SLA of variable structures, our discussion will focus on the frequency of selection of the present perfect over time, as this indicates movement toward or away from local norms. Given that Spain is associated with a more frequent use of the present perfect, our hypothesis prior to the study was that learners would arrive in León with relatively low rates of use of this form and gradually increase these rates with additional exposure to the local target. This pattern of development has been demonstrated for other linguistic forms such as the use of the interdental fricative (Willis, Geeslin, & Henriksen, 2009) and the use of le as a direct object pronoun (Geeslin et al., 2010). Nevertheless, our results show that the NS rates of selection of the present perfect are actually lower than the rates of selection of the form by our NNSs, even at Time 1. Thus, development in our study was actually characterized by the gradual reduction in rates of selection over time, rather than an increase. Although there was no change in rates of selection from Time 1 to Time 2, learners showed a decrease in frequency of selection by Time 3. They still overshot the NS norm at Time 3, however. Although it is possible that the nature of the task led to the unusually high rates of use of the present perfect, given that chance would be close to the frequency attested at Time 1, this explanation is unlikely because it has not been true in previous research focusing on other structures using similar elicitation measures (e.g., copula contrast, Geeslin 2003). Likewise, although the ‘both’ response is used much more often by the NNSs than by the NSs and these responses were analyzed together with the present perfect responses, even if only the rates of present perfect are analyzed separately, learner use of this form is still higher than the NS norm at Time 1. In other words, neither the type of task nor the methods of analysis are likely the source of the high start rates for selection of present perfect. Nevertheless, without data from learners who are in other Spanish-speaking countries, we cannot make claims about the effect of contact with NSs from Spain and the variety of Spanish spoken there. Despite the high start rates, however, the current study does show that learners are able to reduce this frequency over time and move toward NS norms.

The second research question was formulated to examine the predictors of the selection of perfective past tense reference forms across time, based on the results of a series of regression analyses. We first discuss the linguistic variables included in the predictive models. At Time 1 and Time 2, the only linguistic factor found to be a significant predictor of selection of the present perfect was telicity. The results of numerous studies designed to test the Aspect Hypothesis (cf., Bardovi-Harlig, 2000), which predicts that the preterit will first appear in telic contexts and the imperfect will first appear with states and activities, have demonstrated a strong association between the preterit and its use in telic contexts (Cadierno, 2000; Liskin-Gasparro, 2000). Consequently, our results corroborate this one-to-one association and confirm that our learners are unlikely to allow the preterit in atelic contexts at the first two test times. We do note, however, that the relatively high rates of selection of the present perfect also imply that the preterit is not the only form associated with perfectivity. At Time 3, we see that this association between telicity and the preterit forms has weakened, allowing for other forms to appear in telic contexts and allowing the use of the preterit to extend to atelic contexts. This means that our learners are now able to rely on more appropriate linguistic constraints to determine their selection between the preterit and the present perfect. Thus, at Time 3, the linguistic variable ‘time of event’ is included in the predictive model, and we see that the present perfect has begun to function as a marker of hodiernal perfectivity. The inclusion of this factor in the model at Time 3 and the direction of the effect across the categories of that variable are consistent with the NS model as well.

Turning to extralinguistic factors, there are several additional independent variables that merit discussion. At Time 1 the only extralinguistic factor included in the predictive model was the number of years of previous language study, and this factor remained significant at the second and third test times, although to varying degrees. Contrary to the results for change over time in general, where rates of selection of the present perfect gradually decreased toward the NS norm over time, additional years
of study prior to the SA experience were correlated with higher rates of selection of the present perfect. Likewise, higher rates of selection of the present perfect were associated with more improvement on the level test and with a higher final score on the same test at Time 3. Taken together, these results point to certain hypotheses about why this may be, while ruling out others. For example, it is not the case that greater improvement on the level test was simply indicative of a particularly low start value, because the higher final score on the level test is also associated with greater rates of selection of the present perfect. Thus, any explanation for these facts must address why learners who improve during the immersion experience and have additional years of language learning experience show high levels of prescriptive grammatical knowledge (as measured by the level test) but do not appear to be moving in the direction of the NS norm. What makes this learning problem different from other structures examined in previous literature, such as the copula contrast (Geeslin, 2003) and the use of the subjunctive (Gudmestad, 2008) is that acquisition can be described as a decrease in frequency of use of a form along with the acquisition of the appropriate constraints on that use. For many grammatical structures, learners must integrate a new form into their grammars, moving away from a one-to-one association to allow an additional form, and also acquire the appropriate constraints on that use. In the case of the present perfect, however, rates of selection of the structure for our learners were already higher than for the NSs, even though these NSs belong to a speech community in which rates of use are thought to be higher than in other target communities. Thus, our learners were faced with the task of reducing their rates of use and also adopting the appropriate constraints on that use. Given this additional challenge, we propose that frequency of selection itself, particularly on a task that provides the form under examination and, thus, could elicit a 50 percent rate of selection by chance, may not be a good indicator of acquisition. Although this points to a distinct disadvantage of this task type, we would not have been able to assess the relative effect of the various linguistic variables on rates of selection with a less controlled task. Thus, without the task employed in the current study it would not have been possible to show that the learners were employing native-like constraints on use of the present perfect at Time 3 despite their rates of selection. For this reason, we find our methods justifiable while at the same time advocating for additional research on this topic that employs less controlled measures.

The third and final research question sought to compare our NNS group to the NSs that completed the same task. In terms of frequency of use, NNS selection of the preterit was always less than that of NSs, and NNS selection of the present perfect was always greater than that of NSs. Frequency of use of the present perfect decreased from Time 2 to Time 3, indicating an approximation to NS norms at the final elicitation time. As for linguistic predictors, we demonstrated further that our learners were employing the constraint ‘time of action’ at Time 3 in the same way that the NSs were. Taken together, we see that learners are modifying both their frequency of selection of the present perfect and the linguistic constraints on this use during their stay abroad. Thus, even though the acquisition of the structure is demonstrated by a reduction in frequency of selection rather than an increase, our findings are consistent with previous research which shows that in order to acquire variable structures in a second language, learners must adjust both frequency and the constraints on use of a structure in order to approximate NS norms. Moreover, it appears that both of these modifications to the learner grammar are being made simultaneously, rather than first adjusting one and then the other.

6. Conclusions and future directions

The current study is the first longitudinal examination of perfective past time reference in a SA environment where a clear account of the target to which NNSs are exposed is also provided. Moreover, it is the first to examine the two perfective forms (preterit and the present perfect) as opposed to the contrast between one perfective form (e.g., the preterit) and one imperfective form. The result is a more detailed understanding of the path of acquisition of the present perfect than was previously available. A second contribution is that our results serve to extend the current understanding of the SLA of variable structures to a new grammatical construct. In this regard, we show that learners can develop sensitivity to the linguistic variables that predict native speaker selection of this structure (Geeslin et al., 2010). Moreover, we have shown that even when acquisition is best characterized by a reduction in frequency of rates of selection rather than an increase, a
variationist approach allows us to examine change over time and to compare NSs and NNSs in terms of both frequency and predictors of the choice of perfective forms.

Despite the contributions of the present study, there are some limitations that should be considered in designing future studies. First, our results are derived from data collected via a single instrument testing preferences, rather than production of the variable in question. Future research should evaluate data provided in additional oral elicitation tasks. Second, while our study provides significant insight into SLA in a SA environment, it is difficult to separate the effects of a given target variety on acquisition from the effects that might occur in another environment. Future research could replicate this study in other learning environments where contact intensiveness is similar but the variety is different from that spoken in León, Spain. It would also be useful to investigate the acquisition of these variables with at-home learners in order to understand whether a reduction in the frequency of selection of this form occurs at varying rates according to the target norm and quantity of native input available to learners. Finally, our research indicates a high level of present perfect selection (or selection of both) by our learners, especially at Time 1. This may indicate that learners have been exposed to this variety in formal instruction. Studying learners at lower levels of proficiency may be helpful in better understanding the development of perfective past time reference.

Appendix

Statistical details of regression analyses

<table>
<thead>
<tr>
<th></th>
<th>NNS Time 1</th>
<th>NNS Time 2</th>
<th>NNS Time 3</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent predicted</td>
<td>59.8</td>
<td>62.8</td>
<td>63.9</td>
<td>70.5</td>
</tr>
<tr>
<td>-2 log likelihood</td>
<td>1401.97</td>
<td>1374.422</td>
<td>1294.081</td>
<td>787.39</td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>0.026</td>
<td>0.057</td>
<td>0.089</td>
<td>0.242</td>
</tr>
<tr>
<td>Model χ²</td>
<td>20.717***</td>
<td>45.633***</td>
<td>70.08***</td>
<td>142.624***</td>
</tr>
<tr>
<td>Df</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

Note. *** = p≤ 0.001; **=p≤.001; * = p≤ 0.05

References


