The acquisition of English past tense in an instructional setting

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Abstract

The development of past tense verbal morphology among second language learners has been associated with the lexical-semantics of verbal predicates, or the saliency and frequency of past tense morphology. The relative effect of the above-mentioned factors was analyzed in written and orally elicited narratives of 14 classroom learners of English (native speakers of Spanish in their home country). The results show that the effect of the cognitive saliency of frequent and irregular verbal morphology appears to be more important than the effect of lexical aspect in the beginning stages of development of inflectional endings. The results were analyzed from the perspective of two distinct cognitive processes in the development of inflectional endings in a second language: lexical (item) learning versus rule-based learning. The above-mentioned findings are discussed in terms of the potential value of developmental sequences for second language acquisition. © 2000 Elsevier Science Ltd. All rights reserved.

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1. Introduction

The role of developmental sequences in the acquisition of inflectional morphology (particularly past tense marking in European languages) is relevant for the analysis of adult second language (L2) acquisition, and ultimately, second language pedagogy. For instance, Schwartz (1993, p. 160) states that inflectional endings are among the most difficult features of non-native languages for adult learners: “highest amount of variability and lowest degree of success.” Schwartz (1993) attempted
to explain this dilemma from the perspective of a formal linguistic account that parallels the claim made by Krashen (1982) (i.e. ‘unconscious’ acquisition vs. ‘conscious’ learning). Schwartz (1993) claimed that learners have access to two types of evidence: positive and negative. Positive evidence is represented by direct exposure to normal utterances of the target language, whereas negative evidence is represented by corrections, questions, requests for clarification, etc. Schwartz (1993) questioned the value of any type of pedagogical intervention (i.e. provision of negative evidence) based on the argument that only positive evidence (i.e. primary linguistic data) may trigger acquisition or language development (negative evidence may lead to learned linguistic knowledge but not language acquisition). With respect to inflectional morphology, Schwartz (1993, p. 160) speculates that ‘the syntax (being built on the basis of primary linguistic data) continues to grow but the morphology seems to lag behind: learned linguistic knowledge, in this case inflectional verbal morphology, just cannot feed into the grammar.’

There are, however, both empirical data and theoretical arguments that contradict Schwartz (and Krashen’s) position. First, the argument that adult L2 development is based on access to positive data only is not supported by some empirical evidence. For instance, previous research has shown that adult L2 learners may rely on various communication strategies that allow them to avoid the use of inflectional markers such as past tense morphology (e.g. Schumann, 1987; Andersen, 1989; Sato, 1990; Andersen and Shirai, 1994; Dietrich et al., 1995). Second, in contrast with Schwartz’ (1993) argument (and in support of the empirical data mentioned above), recent models of task-based instruction advocate the role of explicit pedagogical intervention to influence and speed up L2 development (e.g. Loschky and Bley-Vroman, 1993; Johnson, 1996; DeKeyser, 1998; Long and Robinson, 1998; Skehan, 1998). For instance, Johnson (1996) claims that pedagogical intervention through the manipulation of task design factors such as task objectives and time constraints may help learners acquire various features of the target language. Similarly, Long and Robinson (1996) advocate that pedagogical intervention should be preceded by the learner’s focus on the achievement of specific task objectives.

To achieve the pedagogical objectives proposed by task-based methodologies with respect to inflectional morphology, it is necessary to understand how semantic–discursive distinctions (i.e. tense and aspect) are represented in verbal endings throughout various stages of development. That is to say, the selection of the appropriate type of pedagogical intervention as well as the timing of such pedagogical manipulation must follow the stages that learners go through in their development of inflectional morphology (Pienemann, 1987, 1989; Bardovi-Harlig and Reynolds, 1995). For instance, Bardovi-Harlig and Reynolds (1995) claim that the design of classroom pedagogical activities should be based on three main factors:

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1 One noticeable difference between Schwartz and Krashen, though, is that the former appears to disallow certain components of the grammar (i.e. lexicon and morphology) from the possibility of becoming ‘acquired’ among adult L2 learners.

2 Additional evidence for this position comes from studies in neurolinguistics. For instance, Paradis (1994) states that the complexity of morphosyntactic rules such as the subjunctive or aspeccual differences are affected by maturational constraints.
increased focus on meaning, use of positive evidence, and reliance on information about acquisitional sequences. Hence, in this paper I will analyze the development of past tense verbal morphology as the latter has been a central concern of linguistics research as well as L2 pedagogy (see above). In particular, I will analyze written and orally elicited narratives from 14 native speakers of Spanish learning English in a classroom setting to determine the effect of the lexical semantics of the verb phrase and the cognitive saliency of frequent and irregular verbal morphology.

2. The development of past tense verbal morphology in English and Spanish

In past tense Spanish, the preterite–imperfect contrast is obligatorily marked by means of verbal endings (morphosyntactically). In contrast, English does not make such an overt grammatical distinction (i.e. limited inflectional system). For instance, what constitutes two verbal endings in Spanish may be optionally translated into English as only one form: pensó (preterite)/pensaba (imperfect) = thought. Although English may optionally use the progressive (i.e. was thinking), the latter only obtains in certain contexts, particularly when contrasting two events (see Comrie, 1976, for a general discussion, and Salaberry, 1999c, for a discussion on tense and aspect in Spanish). Hence, English past tense verbal morphology may be considered a subset of Spanish. In essence, Spanish speakers have several options from a comparative perspective: (1) they may overextend the use of a single marker of past tense (preterite only); (2) they may rely on two options if they equate preterite with simple past tense and imperfect with the progressive (thereby, incorrectly overextending the use of the progressive); (3) they may fail to mark past (most likely with the use of present); or (4) they could be successful from the start (not documented to the best of my knowledge). However, the previous contrastive analysis is an oversimplification. In fact, researchers have considered factors other than a comparative analysis of linguistic systems such as the role of lexical semantics or the cognitive saliency and frequency of verbal endings.

The lexical aspect hypothesis (Andersen, 1986, 1991, 1994) predicts that events that have an inherent end point (e.g. to crash, to break, to reach the peak, to notice something) will be the first types of verbs marked with past tense, atelic events (processes that have no inherent end point) will be marked next, whereas stative verbs (e.g. to live, to love, to be) will be the last types of verbs marked as such in past time contexts. Two principles provide the foundation for this hypothesis: the Relevance Principle (aspect is more relevant to the meaning of the verb than tense, mood or agreement) and the Congruence Principle (learners choose the morpheme whose aspeсtual meaning is most congruent with the aspeсtual meaning of the verb). Hence, events that have an inherent end point will be marked first for past tense, atelic events (no inherent end point) will be marked next and stative verbs will be the last types of verbs to be marked with past tense endings.

Another factor that may be considered a major contributor to the development of verbal morphology is the role of the perceptual saliency and frequency of verbal endings (i.e. regular–irregular morphology) in past tense marking (Wolfram, 1985;
Bayley, 1994; Klein et al., 1995; Salaberry, 1999a). For instance, Klein et al. (1995, p. 271) claim that, “irregular verbs are typically frequent and the morphological differences are perceptually salient, compared to a regular ending such as -ed, which may be hard to process for many learners.” In more precise terms, Wolfram (1985) claimed that both tense and lexical aspect may be considered to be higher order factors (related to discourse level) in contrast with surface constraints. Surface constraints are represented by: (1) regular versus irregular morphology; (2) type of irregular formation (e.g. suppletive form, internal vowel changes, internal vowel changes plus suffix, final consonant replacement); (3) frequency of the verb (usually irregulars such as be, have, do, come, go); (4) phonetic shape of the suffix on the regular verb (/t/, /d/ and /id/); and (5) the phonological environment that follows the verb (e.g. cluster reduction — with subsequent deletion of the past tense suffix — is favored when the following vowel is preceded by a consonant). In essence, the prediction is that the more frequent and irregular the verb the more likely it will appear first in the development of past marking of adult instructed L2 learners, irrespective of the lexical semantic value of the verb phrase (e.g. statives vs. telic events). Most important, the prediction of the role of the lexical semantics or the cognitive saliency of frequent–irregular verbs should be empirically distinguishable because “the regular–irregular distinction does not correlate with any feature of verb meaning” (Pinker, 1991, p. 531).

3. Previous empirical studies

Interestingly, previous empirical data have been used as support for either the lexical aspect hypothesis or the alternative cognitive saliency hypothesis. For instance, Schmidt and Frota (1986, p. 257) report that for a beginning learner of Portuguese (English native speaker) in an untutored setting (5-month period in Brazil) the choice of tense “caused more problems . . . than person, number or conjugation class.” The analysis of tape-recorded conversations with a native speaker showed that the learner’s strategy to select past tense marking in Portuguese was lexical: out of 29 verb types used in all four recorded conversations, 24 occurred consistently in either imperfect or preterite. Schmidt and Frota (1986) considered two alternative explanations for these data: the lexical aspectual class of the verbs, or input frequency (distributional bias). Schmidt (1992, p. 373) supported such interpretation arguing that the above-mentioned finding provided support for the claim that “rule application is sensitive to particular lexical items that are frequent and well practiced.” Hence, the study of Schmidt and Frota (1986) did not discriminate the combined effect of the above-mentioned two factors.

On the other hand, some studies have provided direct support for the general prediction of the lexical aspect hypothesis (e.g. Bardovi-Harlig, 1995; Bergström, 1995; Hasbún, 1995; Robison, 1995; Salaberry, 1998). For instance, Robison (1995) analyzed data from 30–60-min oral interviews with 26 college-level L1 Spanish speakers in Puerto Rico. Robison’s (1995) data showed that the use of past tense across lexical aspectual classes was mostly restricted to the marking of telic events
(although the most advanced learners only marked past tense with approximately 20% of all verbs). An extended analysis of various studies offered in support of the lexical aspect hypothesis is presented in Andersen and Shirai (1994, 1996). It is important to point out, however, that some of the above-mentioned studies have also revealed some inconsistencies. For instance, the analysis of data from written narratives from L2 English students in Bardovi-Harlig and Bergström (1996) revealed that, “the use of simple past with states increases noticeably from Group 1 (15.0%) to Group 2 (56.9%)” (pp. 317–318). For a more detailed analysis of such inconsistencies, see Salaberry (1999a, b).

In contrast, data from other empirical studies substantiate the important role of regular versus irregular morphology in the development of past tense verbal endings in L2 English in particular (Tarone, 1983; Kumpf, 1984; Wolfram, 1985; Ellis, 1987; Schumann, 1987; Sato, 1990; Bayley, 1994; Klein, et al., 1995). For instance, Kumpf (1984) argues that Tomiko’s data (an adult Japanese speaker learning English in the untutored environment) show that:

The base form is regularly used when expressing foreground events. The only noticeable exception is the use of forms such as *met*, *bought*, and *told* — the irregular past forms. It is difficult to tell the status of these forms, which may be learned as lexical items (p. 136, italics added).

Kumpf points out that approximately 60% of all stative verbs “are unambiguously tensed” and adds that, “the copula, the most stative form, is tensed 100 percent of the time.” Sato’s (1990) longitudinal 10-month study of two Vietnamese speakers learning English in the US with foster families confirms Kumpf’s (1984) analysis: the two learners did not use inflectional endings (i.e. regular past tense morphology) to mark past tense. In contrast, they used what Sato (1990) called lexical past verbs (e.g. *bought*, *came*): irregular past tense morphology was the only means attested in Sato’s (1990) data to mark past tense. Along the same lines, Wolfram (1985) made an explicit claim about the relative contribution of surface factors towards the development of verbal morphology among L2 learners. Wolfram used data from sociolinguistic interviews to analyze the use of past tense reference among 16 Vietnamese speakers who had no exposure to English before their arrival to the USA. Based on his analysis Wolfram (1985, p. 243) argued, *inter alia*, that “regardless of phonological shape, reduction with regular forms occurs more frequently than with irregular forms.” Most important, Wolfram claimed that these factors may act in unison at the same time that the strength of each factor may vary according to yet to be determined developmental stages. In effect, Wolfram (1985, p. 235) stated that, “in the incipient stages, the processes may converge, with the grammatical process taking precedence, while in the latter stages the phonological process may take on increased significance.”

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3 It is important to point out that Robison’s data were elicited in a variety of contexts (e.g. descriptions of hometown and family members, narratives of movies, narratives of stories heard or read, a picture-based questionnaire).
Finally, the analysis of a series of studies on the development of temporality in various languages (e.g. English, German, French, Swedish) conducted by the European Science Foundation Project reached the conclusion that:

Past tense formation is very simple for the regular forms, and irregular past is often a nightmare. Still, the learners of our study, tend to overlook the simple rules of the former and to start with the complexities of the latter, *whatever the semantic category of the verb* (Klein et al., 1995, p. 271, italics added).

Interestingly, similar findings have been shown in studies of classroom learners of L2 English. For instance, Ellis (1987) analyzed the use of English past tense verbs (regular, irregular, copula) among 17 students learning L2 English in a classroom setting. The learners were requested to narrate a story depicted in a series of still pictures. In the first part of the task, subjects looked at the series of pictures corresponding to story 1, and they wrote their narration of that story (writing task). Subsequently, they were asked to narrate the same story orally (in a language lab). Finally, they were asked to perform an oral narration of a second story (story number 2). For this last task, the subjects were given 2 min to look at the pictures, but they were not allowed to do the written narration before the oral one. The ‘planning time’ variable was determined by the possibility of doing a written narration of the story before the corresponding oral narration. The analysis of Ellis’ (1987) data revealed that style-shifting across the different tasks occurred most commonly for regular past tense forms, less so for past copula, and hardly at all with irregular past tense forms. In other words, attention to form — as reflected in the different amounts of planning time of the oral narrations — directly affected some forms (regularized), but not others (irregular forms). It is possible to speculate that the endings that require the use of rules demand more attention, whereas irregular forms may be stored as lexical elements and will be less affected by processing time.

4. The present study

The preceding review shows that the analysis of data from previous empirical studies may be inconclusive for the analysis of the development of verbal morphology. Part of the uncertainty may be due to substantial differences in the procedures for data collection and analysis. The majority of previous empirical studies on the use of past tense verbal morphology in L2 English are based on: (1) the combined analysis of a variety of data elicitation techniques (e.g. Kumpf, 1984; Robison, 1995); (2) the analysis of discrete-item comprehension tests (e.g. Buczowska and Weist, 1991); (3) the analysis of data from one or two subjects (e.g. Kumpf, 1984; Robison, 1990; Sato, 1990); (4) the analysis of data from learners with diverse L1

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4 Ellis (1987) argued that attention and planning can be considered as equivalent on methodological grounds, and that there is no objective means of determining how much attention a subject is paying to form in various tasks.
backgrounds (e.g., Schumann, 1987; Bardovi-Harlig and Bergström, 1996); and (5) the analysis of data from learners immersed in the target language community (e.g., Kumpf, 1984; Ellis, 1987; Schumann, 1987; Robison, 1990; Sato, 1990; Perdue and Klein, 1992; Bardovi-Harlig and Bergström, 1996). Particularly absent from these studies is the analysis of different types of contextualized production data from several classroom learners who share the same native language background and who have no access to interaction with the target language community. The present study provides a descriptive analysis of data that follows the above-mentioned data collection procedure.

4.1. Subjects

In this study I analyzed written and oral narratives from 14 L1 Spanish speakers learning L2 English in a classroom-only setting. All 14 subjects were adults studying L2 English as part of a program sponsored by their employer (Department of Agriculture, Cattle and Fisheries of Uruguay). Of the 14 participants, nine were female and five were male. All participants had a similar general educational background (chemical engineers or graduate students in that field) as well as language instruction background (mostly classroom-based instruction). They were enrolled in two different levels of instruction roughly equivalent to third and fourth semester college level in the USA. Open-ended interviews with all participants revealed that the classification of students into these two levels of instruction was related to their self-perceived weaknesses in specific areas (e.g., lack of confidence to speak vs. good abilities with written language) and not necessarily their overall linguistic abilities. This was confirmed with the analysis of data from both oral and written narratives (see below). Hence, for the purpose of this study, the knowledge of the target language of all participants may be established at approximately an intermediate level irrespective of course enrollment. Such classification is informative enough for the purpose of the present study given that the analysis of the data focuses on a within-subject analysis (variation across tasks). All 14 subjects participated voluntarily and were paid $10.00 for their time commitment to the study.

4.2. Data collection procedure

Two short excerpts from the silent film *Modern Times* by Charlie Chaplin were selected for this study: *Alone and Hungry* (5 min and 20 s), and *An Accident Occurred at the Store* (6 min). All participants were interviewed in pairs (see below) and each session lasted approximately 45 min. The movie excerpts were shown only once and the narratives (written and oral) were elicited immediately after the students saw them. To generate a narration in the past tense students were asked to play the role of a witness who had seen all the events depicted in the movie excerpt. They were requested to narrate the story to another student who played the role of a detective in charge of taking the report from the witness. The students narrated the movie twice: first orally and immediately after in writing (cf. Ellis, 1987). The
students received help with vocabulary during the narration task whenever they requested it (translations of verbal predicates were given in infinitive form only). All oral narratives were transcribed in orthographic format. Subsequently all verbs from all narratives were classified according to their inherent lexical aspectual semantics (statives, atelic events, telic events) tense marking (present and past) and cognitive saliency of the verb (regular and irregular). The latter two classification schemes were based on the analysis of verbal morphology, whereas the classification of lexical aspectual classes was based on the use of operational tests as described below.

4.3. Operational tests to determine lexical aspectual classes

Three categories were considered for the classification of lexical aspectual classes: statives, atelic events, and telic events. The classification of each verb in terms of inherent semantic aspect was done by the researcher in accordance with two major criteria: telicity and stativity. Two operational tests were used to distinguish lexical aspectual classes (Shirai, 1991):

Test of stativity distinguished stative versus non-stative verbs: If the verb cannot have a habitual interpretation it is a stative verb.

Test of telicity distinguished telic versus atelic verbs: If you stop in the middle of V-ing have you done the act of V (entailment test)?

The application of these tests was performed sequentially. The application of each test will be shown with the following examples based on two sentences extracted from the oral narratives from the present study:

He (to be) hungry
The police (to take) the man to a car

First, we apply the test of stativity: can we use the verb to be in a habitual sense in the framework in which it has been embedded? No. Then the verb to be is a stative verb. The second test becomes irrelevant in this case. The same procedure is applied to the second sentence: can we use the verb to take in a habitual sense in the framework in which it has been embedded? Yes. Then it is a non-stative verb. The second test needs to be applied: if you stop in the middle of taking the man to the car, have you taken the man to the car? No. Then, to take is a telic verb. To ensure impartiality, the classification of verbs was done with the verbs in their infinitive form (as shown above) to avoid the bias of the effect of the specific morphological marker selected by the subject (the preservation of the morphological marker entails circular results). In contrast, the effect of the context of the phrase or sentence in which

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5 These two operational tests are among the most widely used in experimental studies (e.g. Dowty, 1986; Hasbun, 1995; Shirai, 1991) due to their relative robust results compared to similar tests.
the verbs were used (both arguments and adjuncts) was considered essential for the adequate classification of verb types.

5. Data analysis

The analysis of both oral and written narratives will be descriptive because in the present research design inferences about larger populations of subjects are not warranted. On the other hand, the limited number of subjects allows for a more detailed analysis of the data across tasks and across subjects. A total of 562 verbs were analyzed in the data from all subjects. Table 1 presents a summary of the data distributed according to two criteria: non-past versus past marking and regular versus irregular morphology.

Three important generalizations can be made from the analysis of data presented in Table 1: (1) the written narratives were slightly longer than the oral narratives; (2) leaners marked more verbs with present in the oral narrative compared to the written narrative (31 vs. 17%, respectively); and (3) among verbs marked with past tense in both narratives, approximately twice as many were irregular verbs (40% irregulars vs. 22% regulars in the oral narratives and 56% irregulars vs. 26% regulars in the written narratives). In sum, these results confirm previous findings: planning time (monitoring) affects the use of markers of past tense (e.g. Ellis, 1987) and, learners seem to be relying on a lexically based procedure as well as a rule-based one to mark past tense (e.g. Nattinger and DeCarrico, 1992; Skehan, 1998). These data will be further discriminated by individual learner to analyze differences across learner and task.

Table 2 shows the results from the oral narrative by subject and Table 3 shows the results for the written narrative also by subject. The analysis of data by subject confirms the trends shown in Table 1 for the aggregate data. First, the discrimination of data by subject confirms differences in the length of oral and written narratives. Not surprisingly, the analysis of the transcript from the oral narratives revealed a noticeable degree of monitoring of language form brought about by task demands. For instance, the following sequence was typical of how subject 5 arrived at the selection of past tense marking: “and she uh she … go uh went to the to the bed.” Furthermore, learners needed help with the vocabulary necessary to convey

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
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<tbody>
<tr>
<td>Distribution of verbal endings in combined data from all subjects²</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Irregular past</th>
<th>Regular past</th>
<th>Non-past</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral narrative</td>
<td>100</td>
<td>55</td>
<td>77</td>
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<td>93%</td>
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<td>Written narrative</td>
<td>187</td>
<td>80</td>
<td>43</td>
<td>312</td>
</tr>
<tr>
<td>% of all verbs</td>
<td>56%</td>
<td>26%</td>
<td>17%</td>
<td>99%</td>
</tr>
</tbody>
</table>

² The percentages do not add up to 100% because those verbs whose endings could not be discerned between past or present marking were not included in this table (but see Tables 2 and 3).
the story, including help with the selection of verbal predicates. For subject 5 in particular, the following verbs were given as translation following her request (see also data collection procedure): to take over, to give, to go down, to find, to catch, to shoot, and to appear. Notice also that the number of verbs in the written narratives of learners 5, 9, 10, 13 and 14 falls below the average across all subjects (approx. 24 verb tokens), whereas in the oral narratives the number of verbs below the average corresponds to the narratives of learners 5, 8, 9, 11 and 14 (approx. 22 tokens).
Notice that the narratives of learners 5, 9 and 14 are consistently lower than the average in both written and oral tasks. A second important effect was the influence of task type on the use of morphological markers of past tense. Notice that in the written narrative learners 1, 3, 6, 7, 9, 10 and 13 marked almost all verbs with past tense. Of this group, however, only learners 6 and 13 showed evidence of similar performance in the use of past tense in the oral task. In fact, the data from learners 3 and 9 showed almost the reverse tendency: whereas the written narratives show extended use of past tense marking, there is limited use of past tense in the oral narratives (there are no oral narratives for learners 1 and 7). In the case of learners who used present tense extensively in the written narrations, a similar tendency towards extended use of present was also evident in the oral narrative (e.g. learners 8 and 12). It is apparent that the extended use of present tense marking — especially in the oral narratives — was a consequence of the cognitive constraints introduced by the task demands (e.g. limited planning between the time the movie was shown and the oral narrative). For instance, for learner 11 the same verb go was marked with present in the oral narrative (two verbs) but with past in the written narrative (two verbs). This mismatch between oral and written narratives may signal the beneficial effect of planning time (monitoring) provided by the written task. Furthermore, it is interesting to note that even in cases where present was used to mark verbal predicates, the intention of the speaker was to convey past tense (as explicitly stated by the learner in his native language): “he know them, no them no, one thief know him and and... (después no me acuerdo que es lo que le dice pero lo conocia) [then I don’t remember what he said but he knew him].” The use of conocia (knew, imperfective past) explicitly signals the subject’s intention to narrate the story in past tense. In essence, learners failed to use past tense marking due to inadequate control of language form.

Finally, analysis of Tables 2 and 3 shows that the use of irregular verbs was higher than regular verbs in the written narratives. Notice that for subjects 3, 4, 5, 11, and 12 the use of irregular past tense endings was consistently higher than regular endings across both tasks. Subject 12, in particular, did not seem to use any productive rule for the formation of past tense endings. In contrast, she relied on lexicalized uses of past tense (mostly irregular endings). Only in some rare cases did subject 12 show any signs of using a generative rule to mark past tense. In contrast, for subjects 6, 9 and 13 the use of irregular and regular past tense endings was balanced across both tasks. Interestingly, for subject 6, all six instances of a regularized past tense form used in the oral narrative followed a request for help with the translation of verbal predicates (to steal, to catch, to take responsibility, to call, to take someone away, to get on the bus). All six infinitive forms provided by the researcher were successfully converted to the regularized past tense form as shown in the following example:

Furthermore, as explained before, both learners 1 and 2 were unable to narrate the movie orally due to task demands. Not surprisingly, their written narratives were very short. This outcome reveals that both learners had a limited control of the target language under the conditions exemplified in this particular empirical study.
Subject 6: llamó, llamó cómo se dice? [called, called, how do you say that?]
Researcher: to call
Subject 6: he called a policeman ... la la agarró [caught her her]
Researcher: to catch
Subject 6: caught a girl.

In sum, the distribution of regular versus irregular markers of past tense across subjects shows a higher use of irregular endings or a balanced distribution of regular–irregular endings. There was only one exception to this trend: for subject 10 the use of regularized endings was almost twice the number of irregular forms in the written narrative, whereas the proportion of use of regular–irregular morphology was balanced in the oral narrative. Of particular importance in the oral data from subject 10 (least monitored) is the analysis of two of the most typical verb types (10 out of a total of 31 verbs): to go and to see. The verb go was never used as a past tense form (irregular). In contrast, the verb see was always used as an irregular past tense form (saw). This different outcome may be evidence that subject 10 is relying on a process by which the incorporation of (irregular) markers of past tense occurs one item at a time.

The analysis of the data will also be made from the perspective of lexical aspect: Table 4 shows the distribution of verbal endings in the oral narrative and Table 5 the results from the written narrative. Tables 4 and 5 reveal that learners tended to use verbs that represented telic events to retell the movies in both tasks: approximately 77 and 74% of all verbs corresponded to telic events in the oral and written narratives, respectively. In contrast, stative verbs corresponded to approximately

Table 4
Classification of verbs according to lexical aspect (oral narratives)*

<table>
<thead>
<tr>
<th>Learner</th>
<th>Telic</th>
<th>Atelic</th>
<th>States</th>
<th>Total</th>
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<td>4</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>26</td>
<td>30</td>
<td>248</td>
</tr>
</tbody>
</table>

* Due to mechanical problems with the tape recorder the oral narrative of subject 7 was lost. In contrast, learners 1 and 2 were unable to narrate the movie orally due to task demands.
12 and 15% of all verbs in the oral and written narratives, respectively. The least common verb types were atelic events with a proportion of approximately 11% of all verbs in both oral and written narratives. In sum, there was a consistent use of verbs that corresponded to specific lexical aspectual classes across tasks. As for the effect of lexical aspectual classes on morphological marking, the data from this study seem to go against the prediction of the lexical aspect hypothesis. For instance, in the oral narrative of subject 11 the majority of verbs that correspond to telic events were marked with present tense (12 out of 14 verbs), whereas all stative verbs (a total of five) were marked with past (as was the case with other subjects, the category statives was represented mostly with the copula). On the other hand, the majority of verbs in the written narrative of the same subject were marked with past, although a few telic events were marked with present (five out of 22). Similarly, the data from subject 4 showed no correlation between the use of past tense markers and the lexical aspectual class of the verbs in both the oral narrative (16 telic events and 11 statives marked with past) and the written narrative (29 telic events and four statives marked with past). Interestingly, subject 4 did not mark any stative with present, whereas he did use present with some telic events.

6. Discussion

The data from this study provide additional evidence for the analysis of developmental sequences in L2 acquisition. The previous analysis revealed three major findings. First, there was an effect brought about by planning time (i.e. more extended use of past tense in written narratives than in the oral narratives). Second, all learners relied heavily on the use of irregular morphology to mark past tense in
both written and oral narratives. In contrast, the use of regularized forms of past tense lagged behind in the production of most learners. Third, the potential effect of lexical aspectual classes was not significant in the selection of past tense verbal endings (as reflected in the differential marking of verbal morphology according to lexical semantic categories) or it reflected the opposite trend of development predicted by previous hypotheses. In sum, the analysis of data from this study provided evidence that irregular morphology (e.g. extended past tense marking of stative be as irregular was) correlated more strongly than lexical aspect with morphological past tense marking. In essence, the effect of inherent lexical aspect (classes of verb phrases) may be independent of the effect of the cognitive saliency of irregular morphology in languages such as English or Spanish. Arguably, it is possible that data previously analyzed as evidence for the effect of lexical aspect may be alternatively explained with reference to the cognitive saliency of irregular and frequent verbal morphology.\footnote{There is, however, an important caveat on this point: the category statives was represented by a limited number of verb types. This is not surprising, because in general, movie narratives rely mostly on the main plot of the story. That is to say, movie narratives are based on recounting the main events that represent the ‘complicating action’ (with ‘action’ verbs) while there is little orientation and evaluation of the events happening in the story (cf. Labov, 1972, Silva-Corvalán, 1983, etc.). Previous studies have also shown the lopsided distribution of statives in favor of a few verb types (e.g. Kaplan, 1987; Bergström, 1995; Salaberry, 1998). For instance, Bergström (1995) stated that approximately 81\% of all statives in the written narratives of her L2 French students corresponded to two statives: be and have.}

The above-mentioned contrast in the use of irregular versus regular past tense morphology may be the consequence of the operation of two distinct cognitive processes in the development of inflectional endings in a second language: lexical (item) learning versus rule-based learning (see Pinker, 1991, for L1 acquisition and Skehan, 1998, for L2 acquisition). The role of lexical learning in the development of verbal morphology has been proposed by several researchers working in diverse acquisition settings. For instance, Pinker (1991) argues that the use of inflectional endings to mark past tense (in languages like English) may be dependent on a hybrid cognitive process that combines rule-like behavior as well as memory-based associations. As such, the learning of irregular forms will be strongly affected by frequency and similarity (memorized items). Pinker (1991) points out that “the 13 most frequent verbs in English — be, have, do, say, make, go, take, come, see, get, know, give, find — are all irregular” (p. 532). Similarly, in L2 acquisition Giacalone-Ramat (1992, p. 304) claims that “a production strategy at the [L2] learner’s disposal is to use a sort of lexical unit with no morphological variation, gradually developing the necessary morphological devices for word class assignments.” Hence, the use of irregular past tense morphology should precede the appearance of regularized morphology (i.e. -ed endings in English) in L2 development. Along the same lines, Lafford (1997, p. 16) proposed the “saliency-foregrounding hypothesis” based on the analysis of data on the development of L2 Spanish verbal endings among L1 English speakers. Lafford (1997) claims that “phonologically salient verb forms are used to reflect salient (foregrounded) actions in L2 narrative discourse.”\footnote{Finally, recent work in neurolinguistics provides additional support for...}
the claim that the first morphological markers of past may represent a case of item (lexical) learning instead of rule learning. For instance, Paradis (1994) has advanced the claim that the cognitive processes that underlie lexicon and morphosyntactic development are subserved by neurofunctionally distinct systems. He argues further that “morphosyntax, but not vocabulary, appears to be affected by maturational constraints” (p. 398).

Having ascertained the importance of cognitive saliency factors should not deny the relevance of verb classes determined by lexical aspect. In effect, the independence of the effects of inherent lexical aspect and the cognitive saliency of irregular endings on the development of verbal morphological marking may be correlated to distinct stages of acquisition. That is to say, the effect of the lexical semantics of the verb may be more prevalent in more advanced stages of acquisition. In fact, the potential sequential effects of the above-mentioned factors (i.e. cognitive saliency and lexical aspect) are related to claims about developmental sequences and, ultimately pedagogical approaches (e.g. Pienemann, 1987, 1989). More specifically, Pienemann (1987, pp. 154–155) claims that there is “a developmental principle which predicts that ‘rules which require a high degree of processing capacity are acquired late.’”

Also, Pienemann (1989, p. 54) claims further that, “the constraints imposed by language processing play a decisive part in determining the specific order in which given sorts of L2 items are acquired by different individuals.” Some of the major constraints that Pienemann alludes to are: (1) the perceptual saliency of the target item (general perceptual mechanism); (2) the learner’s orientation towards the task (individual variation); and (3) a hierarchy of processing prerequisites (implicational nature of target structures). Thus, given principle (1) above, we can conclude that the development of inflectional morphology (e.g. past tense verbal endings) in L2 English will most likely start with irregular inflections because the latter are perceptually more salient than regular endings. Furthermore, given principle (3), irregular and frequent verbal endings may be processed as lexical information and not as part of an overall inflectional system of verbal morphology (complexity levels). The above-mentioned theoretical conditions adduced by Pienemann are supported by the data from the present study.

As a final caveat, it should be pointed out that developmental sequences may be affected by the conditions brought about by learning environment. For instance, Schumann (1987, p. 38) claimed that his analysis of untutored learners’ data showed that, “there is a stage prior to either aspect or tense where learners rely solely on the pragmatic functions of adverbs, calendric expressions, sequentiality, and context (implicit reference) to express temporality.” Interestingly, Schumann (1987) argued that “the verb morphology which does exist in the basilang is unsystematic and is not used to mark temporal reference” (p. 38, italics added). In contrast, the present study has provided data from the beginning stages of acquisition of the same target language (English) among classroom learners of a single native language (Spanish).

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8 In terms of phonological saliency, both Spanish past tense regular preterites with final stress and irregular preterites with internal vowel changes stand out phonologically in comparison with verbs that carry penultimate stress and that have only three irregular forms (i.e. the imperfect).
But, contrary to the results of Schumann (1987) on untutored learners, the classroom learners of this study seem to show systematic behavior in their selection of verbal morphology. Moreover, it appears that we may account for the main factors that guide such systematic behavior. As mentioned above, such systematicity appears to be dependent on a hybrid processing system that relies on both lexical knowledge (Nattinger and DeCarrico, 1992) as well as knowledge about regularities of use of inflectional endings (e.g. DeKeyser, 1997). Such systematicity may also be useful for the selection and gradation of types of pedagogical applications that call for an increased focus on language form (e.g. Willis, 1996; Skehan, 1998).

7. Conclusion

The analysis of the data from this study revealed that the lexical aspect hypothesis may not offer a complete account of the development of past tense marking in L2 English during the beginning stages of development (among adult classroom learners). In turn, the effect of some general cognitive constraints attested in other areas of L2 acquisition may offer a plausible alternative explanation for the particular features of the empirical data from the present study. The above-mentioned proposal should be further assessed in more detail in future theoretical and empirical analyses given the outcome of this particular study as well as the previous ones reviewed in the preceding sections of this paper.

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References


