The Early L2 Acquisition of Past Morphology: Perfective Morphology as an Aspectual Marker or Default Tense Marker?

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1. The aspect hypothesis of L2 acquisition of past morphology

The second language (L2) acquisition of the form-meaning relationship of perfective and imperfective past morphology (Spanish *pretérito* and *imperfecto*, French *passé composé* and *imparfait*) has been studied from multiple perspectives, such as lexical semantics, generativism, discourse analysis, pragmatics, and cognitive approaches (Montrul & Salaberry, 2003). Out of all these frameworks, most studies have been carried out in lexical semantics within the aspect hypothesis (AH).

The AH for L2 acquisition predicts the route of acquisition of perfective and imperfective morphology according to the lexico-semantic characteristics of verbal predicates. The path of acquisition according to the AH is described as follows (Andersen & Shirai, 1996, p. 559; Bardovi-Harlig, 2000):

(a) Learners will initially restrict past or perfective marking to achievement and accomplishment verbs (those with an inherent end point) and later gradually extend the marking to activities and then states, with states being the last category to be marked consistently.

(b) In languages with an imperfective marker, imperfective past appears much later than perfective past and then is initially restricted to states and activity predicates, then extended to accomplishments, and finally to achievements.

(c) Progressive marking is initially restricted to activity predicates, and then extended to accomplishments and achievements.

(d) Progressive marking is not incorrectly overextended to states.

The four aspectual categories mentioned in the hypothesis (state, activity, accomplishment, and achievement) date back to Aristotelian philosophy and have been discussed in the history of linguistic research in tense and aspect (Binnick, 1991; Comrie, 1976, 1985). In contemporary linguistic and language acquisition studies, the classification of predicates into aspectual categories that is most widely used is Vendler's (1967).[1] Achievement and accomplishment predicates can be grouped under the telic category (with endpoints), and state and activity predicates are grouped under the atelic category. The characteristics of each aspectual category are described in Table 1.

Table 1. Verbal aspectual classes (Andersen, 1991; Smith, 1997; Vendler, 1967)

	Atelic		Telic	
	States	Activities	Accomplishments	Achievements
Punctual	-	-	-	+
Telic	-	-	+	+
Dynamic	-	+	+	+

The categories in Table 1 are also referred to as lexical aspect, which contrasts with morphological (or grammatical) aspect. The main difference between lexical aspect and grammatical aspect is that the former is lexically encoded, that is, the aspectual characteristics of the predicate are determined by the lexical items in a predicate (e.g., *to read* is an activity because it is a dynamic event without an endpoint, but *to read a book* is an accomplishment because it has an endpoint). In contrast, morphological aspect is overtly encoded by inflection of the verbal forms (e.g., in *I painted the house*, the *-ed* inflection makes the predicate telic, but in *I was painting the house,* the *-ing* inflection makes the predicate atelic). Table 2 shows examples of predicates for the four categories in English, Spanish, and Catalan.

Table 2. Examples of verbal aspectual classes

	English	Spanish	Catalan
ST	know, believe	saber, creer	saber, creure
ACT	run, sing	correr, cantar	córrer, cantar
ACC	sing a song	cantar una canción	cantar una cançó
ACH	wake up, arrive	despertarse, llegar	despertar-se, arribar

2. Research in the aspect hypothesis in the acquisition of past morphology

Results from previous studies in the acquisition of tense-aspect in L2 within the AH have provided evidence for three positions regarding the development of past morphology. The first position argues that learners at the beginning stages of acquisition make tense distinctions via pragmatic and lexical means, the second position argues that emergent L2 morphology marks aspect distinctions, and the third position argues that emergent L2 morphology acts as a default tense marker.

(a) Tense marking. Several longitudinal studies on the acquisition of temporality argued that L2 learners in untutored environments did not use past verbal morphology according to the aspectual category of verbal predicates, but rather according to tense (i.e., learners used past morphology to mean "before now" rather than durative or nondurative) (Dietrich et al., 1995). These studies argued that --besides grammatical marking-- temporal information was provided by lexical semantics, adverbs, calendric expressions, principles of discourse organization, and overall text structure (von Stutterheim, 1991; for similar conclusions, see Dietrich et al., 1995). As argued by Bardovi-Harlig (2000), the results in these studies provide a detailed view of acquisition of temporality, but differences in the presentation of data and research methodology do not allow a clear comparison of the results with studies that focus on the AH.

(b) Aspect marking. The studies that have tested the AH by examining emergence of perfective and imperfective morphology in a variety of languages mostly have been interpreted as evidence of the relationship between inflection of verbal predicates and lexical characteristics of predicates (Andersen, 1986; Robison, 1990, 1995). For instance, Andersen (1986) studied the acquisition of Spanish in Puerto Rico by Anthony, a native speaker of English (aged 12 at the beginning of data collection), and the analysis of his interlanguage showed that he used preterite morphology (in obligatory contexts for preterite or imperfect) only with those verbs that were punctual, whereas he used imperfect morphology for state or durative situations. Andersen (1991) hypothesized a developmental sequence for emergence of Spanish past inflections based on 8 stages of acquisition (Table 3). According to this sequence, at Stage 1 present morphology is used for past reference. At Stage 2, preterite emerges in achievement predicates; and at Stage 3, imperfect emerges in state predicates. At Stage 4, preterite spreads to accomplishments, and imperfect spreads to accomplishments. In the next four stages, morphology continues spreading until all types of predicates are inflected for preterite and imperfect.

The most detailed body of research in the AH that investigates tutored learners is a series of studies by Bardovi-Harlig (see a full review in Bardovi-Harlig, 2000). Overall, these studies showed that classroom learners of English from different first language (L1) backgrounds (mostly Japanese, Korean, Arabic, and Spanish) were sensitive to the aspectual category of the verbs when they inflected

them for past (-*ed*) or progressive morphology (-*ing*); that is, classroom learners associated past morphology with telic events and progressive morphology with activity predicates.

Table 3. Emergence of perfective and imperfective morphology according to the Aspect Hypothesis (Andersen, 1991)

Stage	Emergence and development of morphology
Stage 1	Use of present morphology (or noninflected forms) for tense/aspect reference
Stage 2	Perfective morphology emerges in achievements.
Stage 3	Imperfective morphology emerges in states.
Stage 4	Perfective morphology spreads to achievement predicates, and imperfective spreads to activities.
Stage 5	Imperfective morphology spreads to accomplishments.
Stage 6	Perfective morphology spreads to activities.
Stage 7	Imperfective morphology spreads to achievements.
Stage 8	Perfective morphology spreads to states.

Influenced by the works of Andersen and Bardovi-Harlig, researchers studied the acquisition of past morphology in U.S. university tutored environment for languages other than English, mostly Spanish (Camps, 2000, 2002; Hasbún, 1995; Ramsay, 1990; Salaberry, 2000) and French (Bergström, 1995; Kaplan, 1987; Salaberry, 1998). A few other studies also investigated L2 acquisition of verbal morphology in other tutored environments: Martínez-Baztán (1994) and Cadierno (2000) investigated the topic from the perspective of Dutch and Danish university learners of Spanish, and Shirai & Kurono (1998) studied the AH in the L2 acquisition of Japanese.

The common pattern of the L2 Spanish acquisition studies was that learners initially used present morphology for past context. At a later stage, preterite morphology emerged in telic predicates (accomplishments and achievements), imperfect morphology was almost nonexistent, and when imperfect morphology emerged it did so in state and activity predicates (Ramsay, 1990; Hasbún, 1995). For instance, the preterite morphology in the Level 2 learners (second year U.S. university level) in Hasbún (1995) emerged with a clear aspectual pattern: 51% of achievements, 38% of accomplishments, 29% of activities, and 19% of states were in the preterite; compared to 32% of states, 6% of activities, 3% of accomplishments, and 2% of achievements in the imperfect.

(c) Preterite as a default tense marker. The studies that have investigated the AH and have not found full support for it have either attempted to explain the results within the AH or have posited new hypotheses. The studies that have explained the results within the AH have done so appealing to factors other than lexical aspect for specific learners or levels of proficiency, such as learner characteristics, role of instruction, research design, or textual cues (e.g., Bergström, 1995; Hasbún, 1995). Instead of explaining the results within the AH, Salaberry (2000) argued that L2 learners of Spanish were using preterite forms across lexical categories to mark past tense rather than aspect, and he posited the developmental pattern for Spanish preterite and imperfect in Table 4. In this article, the developmental path argued by Salaberry (2000) will be referred to as the (Default Marker of Past) Tense Hypothesis (TH). [2]

Table 4. Development of Spanish past morphology (Salaberry, 2000, p. 172)

Stage	Emergence and development of morphology
Stage 1	No past tense marking (use of present or noninflected forms)
Stage 2	Past tense is marked with preterite only.
Stage 3	Imperfect is used with stative verbs (limited set).
Stage 4	Imperfect extended to atelic and telic events.
Stage 5	All verbs may be marked with imperfect or preterite.

The arguments for the patterns in Tables 3 and 4 differ in two respects. The main difference concerns the beginning stage of acquisition. A close reading of the early definitions of the AH indicates that the influence of aspectual category is stronger in the beginning stages of acquisition (Andersen, 1991; Robison, 1990). This means that investigating learners at the intermediate level may be futile because the hypothesis may no longer be active and morphology may have spread to most of the aspectual categories. In its current formulation, the AH considers that the influence of lexical aspect is not restricted to the initial stages of morphological development (Bardovi-Harlig, 2000, p. 274), and that the later influence of the hypothesis mostly affects specific types of morphology, such as English progressive and Spanish imperfect. Thus, data from beginning L2 learners are more appropriate to investigate emergence of morphology in the aspectual categories, and data from intermediate L2 learners may be more appropriate to study spread of morphology. Most L2 studies do not specify what their focus is and, consequently, results may receive different interpretations.

The other difference between the arguments behind the developmental paths in Tables 3 and 4 is that Salaberry (2000) argued that the development according to the TH was for tutored learners of Spanish in a foreign context as opposed to untutored learners acquiring the language in a natural environment (e.g, the learners in Andersen 1986, 1991) or tutored learners acquiring the language in a natural environment (e.g., the learners in Bardovi-Harlig's studies). Salaberry (2000, p. 173) argued that the path predicted by the TH described the acquisition of academic Spanish for two reasons: "(1) the heavy emphasis on the use of inflectional morphology in academic settings, and (2) lack of access to consistent contacts with the use of the L2 in a natural environment of communication."

3. Review of data at the beginning stages of acquisition of past morphology

In order to investigate to what extent learners at the beginning stages of acquisition of perfective and imperfective morphology followed the patterns of the AH or the TH, this section reviews studies in the acquisition of Romance perfective and imperfective morphology in similar settings and using similar methodology. In addition, new data from the acquisition of Catalan are presented and discussed in light of the two hypotheses.

The reviewed studies had the following characteristics: (a) The participants were at the beginner level (first or second semester of the first year), (b) the learners were acquiring the L2 in an academic setting (U.S. university), (c) the L2 was a Romance language (Spanish, French, Catalan), (d) the L2 was a language that had perfective and imperfective morphology (Spanish *pretérito-imperfecto,* French *passé composé-imparfait,* and Catalan *perfet perifràstic-imperfet*), (e) the L1 was English, (f) the studies provided quantified data (using the Vendlerian classification), and (g) the elicitation tasks were similar (oral narrative retellings). The characteristics of the studies are summarized in Table 5, and they will be discussed in the order displayed in the table (acquisition of Spanish, French, and Catalan).[3]

Table 5. Summary of L2 studies of the AH with beginner data

Study	Participants' L1	L2	Environment	Task
Salaberry (2000)	4, English	Spanish	2nd semester	Video retelling
Hasbún (1995)	20, English	Spanish	2nd semester	Video retelling
Ramsay (1990)	6, English	Spanish	U.S. university	Storybook
Camps (2002)	15, English	Spanish	2nd semester	Several
Bergström (1995)	42, English	French	2nd semester U.S.	Video retelling
Salaberry (1998)	39, English	French	2nd semester U.S.	Video retelling
Comajoan (2001)	3, English	Catalan	1st and 2nd	Video retelling

The data from Salaberry (2000) in Table 6 show the use of preterite and imperfect forms by second-semester U.S. university Spanish students. These data were taken as evidence for the TH

because preterite was used across all lexical categories, and imperfect was barely used by the four learners.

The learners used preterite forms in all types of predicates, but the percentages of preterite inflection within aspectual category were not similar across the lexical categories. At Time 1, activities were the highest inflected category in the preterite (55%), followed by the telic categories (30%) and states (20%). At Time 2, the telic predicates were the most inflected in the preterite (54%), followed by states (29%) and activities (24%). The disparity of these percentages cannot be taken as strong evidence that learners were using preterite indiscriminately as a default marker of past tense. Nor can the results at Time 1 be taken either as evidence that the learners' use of preterite was determined by the lexical characteristics of the predicates, because the activity category was the one that was most inflected for preterite. At Time 2, however, the pattern for preterite use resembles more closely that predicted by the AH, because the telic categories received the highest percentage of preterite inflection. The fact that the state category was more inflected for preterite than the activity category is contrary to what is predicted by the AH.

Regarding imperfect morphology, the data from Salaberry (2000) showed that learners at the beginner level did not use it. At Time 1, only one state token was inflected in the imperfect, and at Time 2, only two telic predicates and two states were inflected. This finding is crucial for the argument of the TH, because it is argued that despite the fact that learners had been taught imperfect forms and had practiced them two weeks prior to Time 2, learners did not produce imperfect forms to refer to past tense actions, but rather they used preterite as a default marker of tense (Salaberry, 2000).

Table 6. Use of preterite and imperfect morphology by aspectual category at Time 1 and Time 2, Salaberry (2000, p. 136, 140), percentages in parentheses

| | Time 1 | | | | | | Time 2 | | | | | |
	TEL		ACT		ST		TEL		ACT		ST	
Pret	28	(30)	12	(55)	7	(20)	61	(54)	5	(24)	9	(29)
Imp	0	(0)	0	(0)	1	(3)	2	(2)	0	(0)	2	(6)
Pres	55	(59)	9	(41)	27	(77)	41	(36)	9	(43)	20	(65)
Other	10	(11)	1	(5)	0	(0)	10	(9)	7	(33)	0	(0)

Table 7 shows data that can be compared to the data from Salaberry (2000), because the learners' background was similar (second-semester U.S. university Spanish learners), and the elicitation task was the same (*Modern Times*). The data from Hasbún (1995) showed that preterite forms at Level 1 were used in all categories except in the one in which it was expected to emerge according to the AH (achievements). One needs to be cautious interpreting these data, since Hasbún explained that all 10 instances of states in the preterite were inappropriate uses of *ser* and *tener*, whereas all the other uses of preterite in the other three categories were appropriate. These data were interpreted by Salaberry (2000) as evidence against the AH because the category of achievements was not marked.

Table 7. Use of preterite and imperfect morphology by aspectual category, Hasbún (1995, p. 126), percentages in parentheses

	ACH		ACC		ACT		ST	
Pret	0	(0)	8	(7.7)	3	(2.4)	10	(6.2)
Imp	0	(0)	0	(0)	0	(0)	1	(0.6)
Pres	96	(87.3)	85	(81.7)	105	(84.7)	149	(92.6)

Ramsay's (1990) study did not group learners by level but by morphosyntactic profiles. Table 8 shows that the learners in Group 1 (with the lowest morphosyntactic profile) used preterite

morphology in telic predicates exclusively. In Groups 2 and 3, the patterns were similar, since learners produced the vast majority of preterite tokens in the telic categories. Regarding imperfect use, learners in the groups that can be associated with a beginner level (Groups 1 and 2) only produced two imperfect tokens. These data showed that learners at a low level of proficiency did not use imperfect forms, and in that respect the data were similar to the findings in Salaberry (2000).

Table 8. Use of preterite and imperfect morphology by aspectual category, Ramsay (1990, p. 236, 238, 240), raw tokens

	TEL	ACT	ST
Group 1, N=6			
Pret	15	0	0
Imp	0	1	0
Other	186	9	44
Group 2, N=6			
Pret	57	3	0
Imp	0	0	1
Other	170	16	74
Group 3, N=6			
Pret	135	0	5
Imp	1	14	19
Other	90	13	55

The data from Camps (2002) were produced by learners at the same level as the previous reviewed studies, but the 15 learners performed five sets of oral tasks at three different times within one semester (approximately one month apart) (Table 9). Regarding the use of preterite, the data in Table 9 show that the state category was the one that was least inflected in the preterite (32%) and that accomplishments and activities were the most inflected categories in the preterite (71% and 69%, respectively). The category of achievements was the third most inflected category in the preterite (56%). Camps concluded that the difference between states and the other categories was evidence for the influence of aspectual category in the emergence of preterite. Regarding imperfect morphology use, these results contrasted with Salaberry's (2000) findings, since the learners in Camps (2002) produced imperfect tokens at the beginner stage (62 tokens in activity predicates, 79 in state predicates).

Table 9. Use of preterite and imperfect morphology by aspectual category, Camps (2002, p. 190), percentages in parentheses

	ACH		ACC		ACT		ST	
Pret	64	(56)	154	(71)	448	(69)	72	(32)
Imp	6	(5)	11	(5)	62	(10)	79	(35)
Pres	29	(25)	23	(11)	72	(11)	62	(27)
Other	17	(14)	28	(13)	68	(10)	13	(6)

Bergström (1995) used the same elicitation task as Hasbún (1995) and Salaberry (2000) to investigate the acquisition of French *passé composé* and *imparfait*. The data in Table 10 show that at the beginner level (Group 1), learners used *passé composé* in all aspectual categories, but the highest percentages were found in accomplishments (61.6%) and achievements (59.4%). The percentage for *passé composé* inflection in achievements was close to that of activities. These results resemble those of Camps' (2002) study in that the category of states was the one that distinguished itself more clearly

from the other categories for inflection of perfective morphology. Bergström also elicited data using a cloze passage that contained the narrative that the learners had seen in the video story. The cloze passage data showed that achievements were more inflected in the *passé composé* than the other three categories, as predicted by the AH.

Table 10. Use of *passé composé* (PC) and *imparfait* (Imp) morphology by aspectual category, Bergström (1995, p. 137, 116), percentages in parentheses, movie retellings (oral) and cloze passage (written)

	ACH		ACC		ACT		ST	
Movie retellings								
PC	132	(59.4)	40	(61.6)	35	(55.6)	22	(23.4)
Imp	3	(1.4)	1	(1.5)	1	(1.6)	22	(23.4)
Pres	56	(25.2)	19	(29.2)	24	(38.1)	43	(45.7)
Other	31	(14)	5	(7.7)	3	(4.7)	7	(7.5)
Cloze passage								
PC	305	(83.8)	81	(66.4)	93	(76.9)	82	(40)
Imp	33	(9.1)	31	(25.4)	23	(19)	99	(48.3)
Pres	2	(0.5)	3	(2.5)	1	(0.8)	7	(3.4)
Other	24	(6.6)	7	(5.7)	4	(3.3)	17	(8.3)

The L2 French data from Salaberry (1998) provided evidence for the role of lexical aspect in the acquisition of French past forms. The data in Table 11 show that almost all achievements were inflected in *passé composé* (91%), followed by accomplishments, activities, and states. The aspectual trend was also found in the acquisition of imperfect.

Table 11. Use of *passé composé* (PC) and *imparfait* (Imp) morphology by aspectual category, Salaberry (1998, p. 530, 531), movie retelling, oral data

	ACH		ACC		ACT		ST	
PC	376	(91)	29	(57)	46	(51)	24	(31)
Imp	38	(9)	22	(43)	45	(49)	53	(69)

Finally, Comajoan (2001) investigated the acquisition of Catalan and examined the role of lexical aspect in the emergence of perfective and imperfective morphology. One of the elicitation tasks was the one used in previous studies (*Modern Times*). The three learners in Comajoan (2001) retold the Modern Times (MT) story on four occasions during a period of seven months (two during the first semester of study, Stage 1; and two during the second semester, Stage 2).[4] Table 12 shows the use of preterite and imperfect morphology in the video retellings by three of the learners in the study.[5]

The data in Table 12 show the variability of results in the use of preterite and imperfect forms by the three learners. At Stage 1, Daniel only produced 2 instances of preterite and none of imperfect, whereas Barbara in the same period produced 13 preterite forms and 1 imperfect form, and Robert produced 27 preterite forms and 3 imperfect forms. At Stage 1, in the period of emergence of morphology, it would be expected --following the predictions of the AH-- that preterite emerged in the achievement category, and imperfect in the state category. This pattern was confirmed by the exclusive use of preterite in achievements by Daniel and imperfect in states by Barbara. These results must be related to the acquisition of vocabulary at this early stage, since in the two aforementioned cases, it is not the case that Daniel did not inflect verbs in atelic predicates in the preterite, but rather that he did not produce any atelic predicates. In addition to the exclusive use of morphology for a specific

category, the data at Stage 1 also provided counterevidence to the pattern predicted by the AH. For instance, in Barbara's interlanguage at Stage 1, the highest use of preterite was in the state category (45%), and the activity and achievement categories received similar percentages (22% and 25%, respectively). Similarly, in Robert's data, the activity and achievement categories were inflected for preterite in similar proportions (67% and 64%, respectively).

Table 12. Use of preterite and imperfect morphology according to aspectual category in the Modern Times (MT) retellings at Stage 1 and Stage 2, Comajoan (2001)

	Preterite								Imperfect							
	ST		ACT		ACC		ACH		ST		ACT		ACC		ACH	
	I	T	I	T	I	T	I	T	I	T	I	T	I	T	I	T
Daniel																
MT1		(0)		(0)		(0)	2	(7)		(0)		(0)		(0)		(0)
MT2		(0)		(0)		(0)		(0)		(0)		(0)		(0)		(0)
Tot St1		(0)		(0)		(0)	2	(7)		(0)		(0)		(0)		(0)
Tot St1%	0		0		0		29		0		0		0		0	
MT3	2	(7)	3	(7)	6	(12)	18	(24)		(0)		(0)		(0)		(0)
MT4	2	(8)	3	(13)	6	(12)	16	(30)	3	(8)	5	(13)	1	(12)	6	(30)
Tot St2	4	(15)	6	(20)	12	(24)	34	(54)	3	(8)	5	(13)	1	(12)	6	(30)
Tot St2%	27		30		50		63		38		38		8		20	
Barbara																
MT1	1	(2)	1	(5)		(0)		(0)		(0)		(0)		(0)		(0)
MT2	4	(9)	1	(4)	1	(14)	5	(20)	1	(9)		(0)		(0)		(0)
Tot St1	5	(11)	2	(9)	1	(14)	5	(20)	1	(9)		(0)		(0)		(0)
Tot St1%	45		22		7		25		11		0		0		0	
MT3	4	(11)	2	(10)	11	(22)	9	(32)		(0)		(0)	1	(22)		(0)
MT4	5	(10)	5	(17)	8	(29)	16	(39)		(0)	2	(17)	1	(29)		(0)
Tot St2	9	(21)	7	(27)	19	(51)	25	(71)		(0)	2	(17)	2	(51)		(0)
Tot St2%	43		26		37		35		0		12		4		0	
Robert																
MT1		(0)		(0)		(0)		(0)		(0)		(0)		(0)		(0)
MT2	3	(3)	4	(6)	11	(14)	9	(14)		(0)	1	(6)	2	(14)		(0)
Tot St1	3	(3)	4	(6)	11	(14)	9	(14)		(0)	1	(6)	2	(14)		(0)
Tot St1%	100		67		79		64		0		17		14		0	
MT3	5	(7)	3	(5)	7	(8)	10	(14)	2	(7)		(0)		(0)		(0)
MT4	3	(4)	5	(7)	8	(12)	11	(16)		(0)	2	(7)	4	(12)		(0)
Tot St2	8	(11)	8	(12)	15	(20)	21	(30)	2	(7)	2	(7)	4	(12)		(0)
Tot St2%	73		67		75		70		29		29		33		0	
Total (3 learners)																
Tot St1%	57		40		43		39		11		17		14		0	
Tot St2%	45		36		48		52		33		24		9		20	

Note. "I" refers to the inflected tokens over the number of tokens "T" within each aspectual category. "Tot St" refers to the total number of tokens and inflected tokens at Stage 1 (St1) or Stage 2 (St2). "MT" followed by a number refers to the specific retelling of the *Modern Times* narrative.

The data at Stage 2 (second semester) were still representative of the period of emergence of morphology, because it was during this period that the learners were introduced to the morphology and use of Catalan preterite and imperfect. The data in Table 12 provide evidence for an aspectual pattern in the use of preterite by Daniel and imperfect by Robert. However, in other instances, such as in the high use of preterite in statives by Barbara and Robert, the pattern is counter to the AH.

The differences in these results can also be observed in the aggregate results for the four MT narratives for all three learners (bottom of Table 12). At Stage 1, preterite was used in activities, accomplishments, and achievements in similar proportions, and the category of states was the most inflected for preterite (contrary to what is predicted by the AH). At Stage 2, there was no clear aspectual pattern either. However, it is important to notice that use of preterite in the atelic classes decreased, whereas it increased in the telic classes. Specifically, the main changes occurred in the state category (from 57% at Stage 1 to 45% at Stage 2) and the achievement category (from 39% at Stage 1 to 52% at Stage 2). Use of imperfect morphology was lower than use of preterite morphology, and at Stage 1 all categories but achievements were marked. At Stage 2, the trend was for atelic predicates to be more marked than telic predicates.[6] Again, it is important to remark that from Stage 1 to Stage 2 use of imperfect morphology increased in the atelic categories and decreased in accomplishments.

In order to further investigate the emergence of verbal morphology in Catalan, the data from the three learners in the study were analyzed in terms of when it emerged and in which aspectual categories. Table 13 shows the tokens produced by the three learners in the tasks that contained the first 10 tokens of preterite and imperfect in two types of narratives: retellings and spontaneous conversations. The table also includes the dates in months and days in which the tasks containing the first 10 occurrences of preterite or imperfect morphology were produced (e.g., Daniel produced the first 10 tokens of preterite in retellings between 1;17 and 5;27). The column labeled "Total" displays an aspectual trend, since the first instances of preterite were more common in the telic categories both in the retelling and the conversations, and the opposite was found for the emergence of imperfect. However, the individual results show that not all three learners' production followed the aspectual pattern. For instance, the emergence of preterite in the retellings from Barbara and preterite in the conversations from Robert did not follow an aspectual pattern.

Table 13. First 10 tokens of preterite (Pret) and imperfect (Imp) in narrative retellings and conversations, Comajoan (2001)

	Daniel				Barbara				Robert				Total			
	Ach	Acc	Act	St	Ach	Acc	Act	St	Ach	Acc	Act	St	Ach	Acc	Act	St
	(1;17-5;27)				(1;18-2;8)				(1;17-2;8)							
Pret	6	3	1	0	1	3	3	5	14	4	1	0	21	10	5	5
	(1;17-7;10)				(1;18-2;15)				(1;17-2;8)							
Imp	0	0	6	5	2	0	6	8	0	5	0	7	2	5	12	20
Conversations																
	(1;24)				(1;25-4;5)				(1;17-31)							
Pret	5	0	4	1	4	5	1	3	4	9	4	1	13	14	9	5
	(1;24-3;12)				(1;25-2;21)				(1;17-31/ 2;22)							
Imp	3	2	2	4	1	4	4	11	0	3	6	2	4	9	12	17

In sum, the reviewed studies make up a preliminary body of beginner data dealing with the acquisition of perfective and imperfective Romance past morphology in academic settings. The main issues that arise from these results are discussed in the following section.

4. Discussion

The discussion of the acquisition of past morphology in the beginning stages of acquisition is structured into the following issues: (a) evidence for the AH, (b) evidence for the TH, (c) and variability of results according to learner and task.

According to the AH, the first type of past morphology that is predicted to emerge is perfective, specifically in achievement predicates. The beginner data from the reviewed studies have showed that perfective morphology does not exclusively emerge in achievement predicates but rather in all types of aspectual predicates (Bergström, 1995; Camps, 2002; Comajoan, 2001; Salaberry, 1998, 2000). Furthermore, in the data from Hasbún (1995), preterite forms emerged in all categories except achievements. However, this evidence must be contrasted with the proportions of marking within each aspectual category. Thus, the telic categories tended to receive higher proportions of perfective marking than the atelic categories.

In Camps (2002) and Bergström (1995), accomplishments were more marked for preterite than achievements. These results can be related to the interplay between number of tokens produced within one class and inflection of the class and type of task. In Camps (2002), learners produced 154 accomplishment tokens in the preterite, compared to 64 achievement tokens. Thus, a higher production of tokens may provide the learner with more opportunities for inflection. This was not the case in Bergström (1995), because in her study, accomplishments were more marked with *passé composé* despite the fact that the number of accomplishment tokens (40) was lower than the number of achievements (132). In Bergström (1995), one can possibly see the influence of type of task in the production of *passé composé* and *imparfait*. In the movie retellings, the category that was most marked in the *passé composé* was accomplishments (61.6%), and in the cloze passage it was the category of achievements (83.8%). Furthermore, when Camps (2002) examined the five sets of data/tasks for his study, he found that the distribution of predicates according to lexical category and the production of imperfect and preterite forms varied according to the type of task. For instance, learners produced more imperfect forms in personal narratives than in picture story narratives.

In light of these results, it can be concluded that there is a trend for the telic categories to be more inflected with perfective morphology than the atelic classes, but it must be remarked that type of task can contribute to the production of specific lexical categories and forms. Further research should investigate more closely how different types of task lead to the production of different types of discourse and how this can have important repercussions in the emergence of past morphology (see Bardovi-Harlig, 2000 for a review of the few studies that have examined the role of discourse and the Discourse Hypothesis).

Salaberry (2000) argued that learners at the beginner level were using perfective morphology across all aspectual categories, because they were associating perfective morphology with past tense. This would explain why learners were not using imperfect morphology at the beginner level in Salaberry (2000), Hasbún (1995), and Ramsay (1990). However, other studies have shown that learners at the beginner level do use imperfect morphology (Camps, 2002; Bergström, 1995; and Comajoan, 2001). As stated by the AH, imperfect morphology emerges later than preterite morphology, and thus, it is expected that at the beginner stages of acquisition imperfect morphology will not be produced in the same proportion as preterite morphology. Strong evidence against the AH and for the TH would be to find uses of preterite forms in contexts where imperfect forms were required, but only Camps (2002) did an analysis that allows for an examination of this.

The results in Camps' study showed that in contexts where an imperfect was required, learners used present forms (40.4%) and preterite forms (39.0%). When he examined the use of preterite in imperfect contexts longitudinally within the semester, Camps found that the percentages of preterite use was 44.4% at Time 1, 39% at Time 2, and 13.3% at Time 3. These percentages must be taken with caution, since they collapse different types of tasks and the times are only one month apart. However, they provide evidence for the fact that learners do use preterite forms in imperfect context but not in large proportions. In sum, learners use preterite forms in imperfect contexts at the beginner stages of acquisition but not indiscriminately. In addition, beginner learners also produce imperfect forms, which tend to concentrate in atelic predicates.

When taking these data together one can conclude that classroom learners in environments that focus on the early production of morphology may for a very short period accept preterite forms as a default tense marker, since most U.S. university textbooks introduce preterite forms before imperfect forms, and preterite forms are introduced in isolation rather than in conjunction with imperfect forms. However, the period in which this happens may be so short that it is not enough to modify the learners' interlanguage and the learners predisposition toward prototypical associations of morphology and lexical aspect.

Finally, the beginner results reviewed in this study provide evidence for the variability of results when examining individual results and different tasks. Camps (2002) and Comajoan (2001) investigated individual results and showed that there was a considerable amount of variability in the learners' production of preterite and imperfect in Spanish and Catalan, respectively. For instance, out of the 15 participants in Camps (2002), only 8 inflected more than 50% of achievements in the preterite, whereas all of them inflected more than 50% of activities in the preterite. Individual differences can also be observed in Tables 12 and 13 in the Catalan data. Although the three learners had no previous knowledge of Catalan and all had previous knowledge of Spanish, Daniel only produced 2 inflected tokens in the preterite in the first two retellings of Modern Times, whereas Barbara produced 13 and Robert 27. The data in Table 13 also show that the period of emergence for the first 10 tokens of preterite and imperfect varied considerably. Whereas it took about 5 months for Daniel to produce the first 10 tokens of preterite in the retellings, it only took about 2 months for Barbara and Robert. Furthermore, the data in Table 13 also show the variability of emergence of morphology in two different tasks: retellings and conversations. It took Daniel about 7 months to produce the first 10 tokens of imperfect in the retellings, but it took him only about 3 months in the conversations. Once again, these results indicate that further research needs to investigate learners longitudinally and in a variety of tasks in order to examine individual trends in the acquisition of morphology.

5. Conclusion

These results provide a complex picture of the beginner stages of acquisition of perfective and imperfective morphology that does not come close to the clear-cut developmental paths of the AH and the TH. The results show, however, that lexical aspect is one of the intervening variables that determine the early inflection of perfective and imperfective morphology, even though due to instruction in tutored environments some learners may use perfective forms as a default tense for a short time. As argued by Andersen (1989) and Andersen and Shirai (1996), the AH must not be taken in absolute terms (*only* achievements are inflected by perfective morphology) but in a relative manner. Furthermore, lexical aspect is only one of the six dimensions of past temporality, including types of events (unitary vs. habitual), pragmatics (realis vs. irrealis; directness vs. indirectness), grounding (foreground vs. background), and discourse structure (Andersen, 2002). As argued by Salaberry (2000), learning environment must also be taken into account in the acquisition of past morphology, since emphasis on early production of past morphology can have repercussions on the emergence and structuring of the learners' interlanguage. Further research should investigate types of instruction in classrooms and their effect in the use of perfective and imperfective morphology. Meanwhile, the current state of affairs in the acquisition of past morphology in Romance languages offers a fruitful testing ground for the interaction of the multiple dimensions of past reference in L2 acquisition.

Notes

[1]. Although there are alternatives to the four-class Vendlerian classification (see Andersen & Shirai, 1996; Verkuyl, 1993 for a review of other classifications), most acquisitional studies have adopted the four-class typology because there is a well defined set of operational tests for several languages that allows for the classification of predicates into the Vendlerian dasses (e.g., De Miguel, 1999 for Spanish; Dowty, 1979 and Mittwoch, 1991 for English; and Pérez Saldanya, 2002 for Catalan).

[2]. The stage numbers in Table 4 have been changed from the original in Salaberry (2000, p. 172) in order to compare the stages with the sequence in Table 3.

[3]. The studies in Table 5 included groups of learners at various levels of proficiency who performed several tasks. The review of the studies only considers the beginner group results and comparable tasks (oral narrative retellings). The participants in Salaberry (2000), Hasbún (1995), Bergström (1995), Salaberry (1998), and Comajoan (2001) watched the video of a short clip of the movie *Modern Times* by Charles Chaplin and retold it afterwards. The procedure for the data collection varied slightly (see the specific studies for details). The learners in Ramsay (1990) were given a storybook (*Donald Duck and the Magic Stick*) with pictures and Spanish text. The amount of text diminished as the story developed, and the participants were asked to provide the missing text to continue the story. The learners in Camps (2002) produced five sets of oral data that were collected at three different times (approximately one month apart). Sets 1-3 were to elicit personal narratives (e.g., what you did during the weekend), whereas sets 4-5 were to elicit impersonal narratives (e.g., look at the pictures and describe what happened).

[4]. Comajoan (2001) studied six learners. Three of the learners were studied for a period of approximately seven months and all had English as their L1, whereas the other three were only studied for a period of approximately three months and had different L1s. Only the data from the three learners who were studied for a longer time and whose L1 was English will be reported here. The names of the learners are pseudonyms. The data were divided into Stage 1 (first semester, first year) and Stage 2 (second semester, first year). At Stage 1, learners had not received explicit instruction on preterite and imperfect Catalan morphology. Instruction of past morphology happened at the beginning of Stage 2.

[5]. Catalan morphologically marks the distinction between perfective and imperfective aspect in the past by way of imperfect and periphrastic past forms, respectively. The imperfect forms are formed by adding imperfect endings to the stem of the verb. Catalan periphrastic past forms, however, radically differ from other Romance languages because they are formed with grammaticalized form of the auxiliary *anar,* "to go" followed by an infinitive. In addition, Catalan also has a set of nonperiphrastic perfective forms that are used in speech and informal style only in some varieties of the Balearic and Valencian dialects. For ease of terminology, *preterite* and *imperfect* will be used to refer to Catalan periphrastic past and imperfect forms, respectively.

[6]. The 20% of use of imperfect with achievements at Stage 2 is barely representative, since it only represents 6 tokens, all produced by Daniel.

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