

Is there a natural order of acquisition in Spanish verb morphology?

*Courtney Harrison
University of North Dakota
Dept of Modern & Classical Languages*

1.1 Introduction

This work proposes to examine the acquisition of Spanish verb morphology and to determine whether there is a natural order of acquisition for child first language (L1), child second language (L2) and adult second language (L2). To present a clear picture of the process, some theoretical considerations and variables need to be discussed.

First, according to Ellis second language acquisition "is characterized by a natural sequence of development (i.e., there are certain broad stages that [the learners] pass through)", but the order of development may vary" (i.e., some steps are left out, or specific morphological features are learnt in a different order)" (1985:73). Second, the natural route is a feature of the vernacular style, and free speech best represents the vernacular. Therefore, the elicitation instrument used in morpheme studies should tap the learner's vernacular style. Any other type of elicitation technique will not characterize the natural sequence.

Another consideration is the type of morpheme study conducted. Evelyn Hatch (1978) has identified two problems with observational studies, whether longitudinal or pseudolongitudinal. First, one never knows if the language produced actually reflects the syntactic sophistication of the learner. For example, the data may be incomplete if there are no occasions that require the use of a specific structure. Second, there are usually only a few learners in such a study, and therefore, it is difficult to generalize from the data. However, the longitudinal study allows us to establish an acquisitional order, which shows development over a period of time. On the other hand, cross-sectional studies look at the learner's production at one point in time. Thus, if several structures are tested, then an accuracy order for that given time can be established. The value of this type of study is that more cases can be documented and generalizations about the data can be discerned.

1.2 The acquisition of Spanish as LI

A proliferation of language acquisition research in English as a second/foreign language has prompted research in other languages, such as Spanish. Several studies have looked at the overall acquisition order of Spanish as a first language, while others have focused only on the acquisition order of the verb system. These studies are important as they have established a base order upon which to compare the acquisition of Spanish as a first language and a second language. The following studies best represent those used to establish this LI order.

Beléndez-Soltero (1980) conducted a longitudinal study of four Puerto Rican boys (ages 17-37 months) acquiring Spanish while living in Boston. She based her results on data from spontaneous conversations and reported two findings. First, the imperative, present indicative and preterite were the first tenses to appear and seemed well established by 2.5 years of age. Following these tenses were the present progressive, the periphrastic future (*ir a* + infinitive), the imperfect indicative and the present subjunctive by the age of 5.0. Second, in terms of person development, the third person singular form was the first to appear in almost every tense and the first to be acquired in all the tenses appearing in the study. Over-generalization of the third person singular to other forms was the most common error.

Cohen (1980) conducted a cross-sectional study of middle-class preschoolers (3-7 years) whose home language was Spanish. He elicited data orally and analyzed them by sequence of appearance, not correctness of tense to situation (i.e., a test of performance, not competence). A tense was considered established when all children produced it. Results showed that by age three the children had acquired the present indicative, preterite, and present progressive. By age four the periphrastic future and the imperfect indicative were established, and by age six the present subjunctive. Although the rest of the tenses were not established, they did appear among certain individuals. The following is a summary of Cohen's findings:

(Column 1 represents the number of subjects responding and Column 2 is the frequency of the tense):

	AGE 3	AGE 4	AGE 5	AGE 6
	N= 14	N = 14	N = 12	N = 10
present ind.	14 97	14 185	12 242	10 153
preterite	14 65	14 63	12 69	10 48
pres. prog.	14 75	14 73	12 94	10 58
per. future	11 44	14 52	12 42	10 37
imperfect ind.	10 22	14 45	12 69	10 38
present subj.	9 20	13 29	9 33	10 23
imperi. subj.	7 9	7 10	5 5	3 5
conditional	1 1	1 1	3 3	1 1
pluper. subj.	_____	_____	2 2	2 2
future	_____	_____	_____	1 1

González (1970) focused on the acquisition of grammatical structures by 27 children (ages 2-5) from the lower Rio Grande Valley of Texas. An item was considered established is a) 2 informants used it a minimum of 3 times each or b) if all 3 informants used it at least once. Gonzalez's findings suggest that the earliest verb tenses acquired are the imperative and the present indicative (established at 2.0) and the present progressive, the preterite and the periphrastic future (established at 2.6): (E established, NE appeared, but not established, -did not appear):

	2.0	2.6	3.0	3.3	3.6	4.0	4.6	5.0
imperative	E	E	E	E	E	E	E	E
pres. ind.	E	E	E	E	E	E	E	E
preterite	NE	E	E	E	E	E	E	E
pres. prog.	-	E	E	E	E	E	E	E
per.future	-	E	E	E	E	E	E	E
imperfect	-	NE	NE	E	E	E	E	E
past prog.	-	NE	NE	NE	NE	E	E	E
pres. perf.	-	-	NE	-	-	NE	E	E
past perf.	-	NE	-	-	-	NE	NE	NE
pres. subj.	-	NE	E	E	E	E	E	E
past subj.	-	-	NE	NE	NE	NE	NE	NE
conditional	-	-	NE	-	-	-	-	NE
future	-	-	-	-	-	NE	NE	NE

González cautiously proposed this order as it only denotes the *appearance* of forms¹.

Gili Gaya conducted a descriptive cross-sectional study using Spanish-speaking Puerto Rican children (ages 4-11). In general, the results of this study can be summarized in five findings. First, by age four the children have acquired the imperative, present indicative and periphrastic future. These findings are not surprising as the youngest child was 4.0 years old at the onset of the study. Second, concerning past tenses, the first nonpresent form is the past participle which competes with the preterite. The past participle is often used alone, "...sin verbo auxiliar, como forma verbal que opone el ahora con el no ahora, con carácter aspectivo más que temporal..." (1972:24). By age five the past participle accompanied by the auxiliary becomes reinforced as a past tense in opposition to the present. The present perfect and preterite forms compete until the child is six or seven years old. Between the ages of five and ten there is consolidation of all the past tenses. Third, the use of the pluperfect tense is sporadic until the ages of seven and is still rare at ten years when it begins to consolidate. Fourth, the synthetic future tense is acquired late: rarely used before seven years, infrequent between seven and ten years,

¹ These same results were found in another study by Gonzalez (1982).

and used with normal frequency between 12-14 years. Fifth, the conditional is less frequent and late in acquisition.

Five additional studies have been cited in the literature on Spanish as a first language. Keman and Blount (1966), Nuñez-Wormack (1979) and Olarte (1985) conducted cross-sectional investigations on the acquisition of grammatical rules. Nonetheless, these studies used a formal elicitation task, and as stated earlier, this type of elicitation task violates the natural order because it does not tap the vernacular style of the learner. Two additional studies of importance that concentrate only on one grammatical point are: 1) Blake (1983) who investigated the acquisition of mood; and 2) Galván (1980) who reported on the acquisition of verb aspect relations.

In conclusion, the results of several studies on the acquisition of Spanish as a first language have been presented here. In analyzing the results or attempting to establish an order of acquisition, care must be taken with regard to the experimental design. The studies and results mentioned above vary in many ways. For example, some studies are cross-sectional and others are longitudinal, both with varying numbers of informants. Several studies are purely observational and others offer differing degrees of statistical analysis. The number of grammatical items presented and the type of data collection (elicited or spontaneous) also differ. Lastly, the possible effects of sex and socioeconomic variables must be considered.

Table #1 represents a consolidation of the studies that focused on a variety of verb morphemes. Given the suggested acquisition orders (or accuracy orders) presented in the first four columns, the generalizations of column five are suggested as a LI acquisition order for Spanish. This order will be used for further comparisons with child L2 studies and adult L2 studies.

Table 1

The ages indicated denote acquisition or multiple occurrences as discussed in the previous reviews. A “+” signifies not yet acquired/established.

- 1) González 1970 and 1982 (occurrences)
- 2) Gili Gaya 1972 (established)²
- 3) Cohen 1980 (established)
- 4) Beléndez-Soltero 1980 (established)
- 5) Van Naerssen 1981³ (* = tentatively confirmed as acquired/in progress,
? = suggested age, but not confirmed)

2 It should be remembered that the youngest informant of this study was four years old and does not necessarily reflect early stages of acquisition.

3 Van Naerssen, using the aforementioned studies in addition to others (for a total of 14 LI studies), established a rank ordering of verb morphemes, as well as a tentative age sequence of acquisition.

	1	2	3	4	5
present ind.	2.0	4.0	3.0	2.5	*2.0-2.6
pres. prog.	2.6	5.0	3.0		*2.0-2.6
periph. fut.	2.6	4.0	4.0	5.0	*2.0-2.6
imperative	2.0	4.0		2.5	*2.9-3.0
past prog.	4.0				*4.6-5.0
preterite	2.6	4.0	3.0	2.5	?5.0
pres. perf.	4.6	4.0			*6.0
pres, subj. ⁴	3.0	5.0	6.0	5.0	*4.6-5.0
past subj.	4.6 +		6.04		*4.6-5.0
imperfect	3.3	4.0	4.0	5.0	?6.0
future	6.0 +	12.0 +	6.0 +		*7.0 +
conditional	6.0 +	12.0 +	6.0 +		*7.0 +
past perf.	6.0 +	10.0			

1.3 The acquisition of Spanish as child L2

It has been posited that naturalistic L2 acquisition does follow ordered developmental sequences, but these sequences need not be completely identical with LI sequences. Therefore, not only is it important to compare first-and second-language acquisition order, but the differences between child and adult second-language learning also need to be compared. The most prominent research of Spanish second-language acquisition by children utilizes data collected in the Culver City immersion program. There appear to be two limitations to this data. First, this program provided for classroom immersion, not total immersion. The students who participated did not receive any instruction in the Spanish language; rather, they were taught typical content material via Spanish. Second, there was a lack of contact with native speakers, except for the teachers. Without a doubt, this limited input of the target language had an effect on the acquisitional order.

There are five studies based on the Culver City program. Cathcart (1972) observed 19 students in a kindergarten class. Flores (1973) conducted a study of eight informants in their second year (first grade) of the program. Boyd (1975) analyzed the spontaneous and elicited speech of twelve students in their third year (second grade); and Cohen (1976) reported on ten students at the end of their third and

4 Regarding the present subjunctive: González suggests 3.0 as the age of acquisition for adverbial phrases with **cuando**; Gili Gaya establishes 5.0 as the age for acquiring adverbial phrases with **para que**; and Blake suggests that at 5.0 indirect commands and adverbials are established, at 6.0 children "catch on" to mood choice in adjectival clauses, but they are not mastered until after age 9, and lastly, that at age 10 mood choice equals that of adults for noun clauses after verbs of doubt and attitude.

fourth years of the program. Lastly, Plann (1976) conducted a cross-sectional study of 24 students in grades 1-4. Based on a composite review of the Culver City studies, the basic order of acquisition for Spanish as a child L2 is: 1) imperative, 2) present indicative, 3) present progressive, 4) periphrastic future and 5) preterite.

Although there appears to be an order of acquisition, none of the verb forms reached the required accuracy level of 90%. Plann concluded that the students were at an intermediate stage in the application of morphological agreement rules.

Overall, there were two principal errors. First, the children overextended the third person singular form to other forms. Plann attributes the predominance of this form to its high frequency of input (both as a present tense form and as the familiar imperative form) and less irregular formation (in contrast to the first person singular form). Another explanation is LI (English) interference. Flores and Plann suggest that the lack of verb paradigms in English may correspond to the lack of subject-verb agreement in Spanish. Moreover, Plann noted that structures with a variety of forms (i.e. the Spanish present tense has two verb-ending categories and five forms for person and number) are acquired late and may contribute to the considerable variation in verb accuracy order.

The second problem area was the preterite. Boyd and Cohen noted that the acquisition of these forms seems to occur in stages. At first there were very few correct forms produced. Later the children are in the process of acquiring the preterite stress rule for regular verbs and apply this stress to infinitives and present tense forms. Generally, errors reflected an overuse of the present tense and incorrect executions of preterite forms. The students seemed to have more trouble sorting out the regular and irregular forms (with regard to both stress and inflections) and the correct persons to go with them.

Lastly, Plann suggests that due to the tenaciousness and systematicity of the errors encountered, there may be evidence of a classroom dialect peculiar to Spanish immersion students. There was no definite trend of improvement across grades, which may indicate that the children are reinforcing each others' errors and these errors are becoming fossilized⁵.

Only one total immersion study has been done in this area. Dato (1970) conducted a longitudinal (10-20 months) study of five American children acquiring Spanish in Madrid. He notes an order of appearance, but posits no fixed stages of acquisition. The morpheme ordering for each child was:

⁵ Selinker (1972) says that fossilization occurs when the learner has obtained sufficient L2 knowledge to meet his communicative and emotional needs and stops learning.

M	O	N	S	C
imperative	imperative	imperative	imperative	imperative
pres. ind.	pres. ind.	pres. ind.	pres. ind.	pres. ind.
per. fut.	imperfect	per. fut.	per. fut.	-----
pres. perf.	per. fut.	preterite	pres. prog.	-----
preterite	pres. prog.	pres. prog.	future	-----
pres. prog.	pres. perf.	pres. perf.	-----	-----
imperfect	future	pres. subj.	-----	-----
pres. subj.	preterite	imperfect	-----	-----
future	pres. subj.	-----	-----	-----

Dato's study suggests the following order: 1) imperative, 2) present indicative, 3) periphrastic future, 4-6) present perfect / preterite / present progressive, 7) imperfect indicative, 8) present subjunctive and 9) future. As indicated, the order of appearance for the past tenses (preterite and imperfect) varies widely.

The child second-language data indicate that there are differences in the order of acquisition of various structures. The order varies somewhat from learner to learner, but the basic acquisition sequence is reliable. In all the studies the third person singular was the first form to appear and served as a base form, frequently overgeneralized to other forms and tenses. Slobin explains this usage. He has identified the stages that are typical in the acquisition of the linguistic marking of a semantic notion: 1) no marking; 2) appropriate marking in limited cases; 3) overgeneralization of marking, and 4) adult usage (1973:205).

Although the two orders (child L1 and child L2) do not follow identical acquisition patterns, there do seem to be some similarities. The general developmental sequence is like that of the first language. Omission of the verb (especially the copula) precedes the development of tense. Next to appear are the use of memorized phrases and routines (especially imperatives) and the limited use of present tense forms to indicate the verb. Regarding the order of morpheme acquisition, the forms of the imperative, present progressive and periphrastic future are acquired early in both the L1 and the L2, while the acquisition of the future is late in both.

Yet the two acquisition orders differ in the following ways. First, the present tense forms are acquired early in the L1, but later in the L2. It seems that in L2 acquisition the application of subject-verb agreement rules is a late stage of development. Second, the inflection for preterite is acquired early in the L1 (2.6 years), but in the child L2 studies only the awareness of stress rules (not inflection) is evident. Third, the imperfect indicative acquired early in L1 is late in appearance in the L2 studies.

1.4 The acquisition of Spanish as adult L2

While there have been several studies on the acquisition of Spanish by adults that look at one or two specific morphemes or features, there are only three studies that focus on a variety of grammatical features and utilize vernacular language. Two of these studies are cross-sectional (Frantzen and Rissel (1978) - using written data, and van Naerssen (1981) - using written data). These three studies will be discussed in order to compare accuracy orders with the child LI and L2 orders previously noted.

LoCoco described the errors of university students learning Spanish and German. She elicited data from four compositions throughout a five-month period. Results of the Spanish verb error analysis indicated that for all four samples the only group variant error (25% or more students) was the confusion of person-number morphemes. For example, while first-and third-person singular form confusion decreased, third-person singular and third-person plural form confusion increased:

	# of students	1st/ 3rd sg.	3rd sg./ 3rd pi.
sample 1	12 out of 48	86.7%	13.3%
sample 2	11 out of 44	72.7%	27.3%
sample 3	20 out of 42	43.5%	39.1%
sample 4	21 out of 42	28.7%	52.4%

She noted that intralingual (morphological) errors were constant, occupying first place in a hierarchical ordering of source errors. Other individual variant errors, (less than 25% of group) noted include:

(based on number of students committing errors)

	Comp. 1	Comp. 2	Comp. 3	Comp. 4
<i>ser/estar</i> confusion	9/48	5/44	12/42	11/42
conjugated V/infinite	7/48	8/44	3/42	6/42
omission of verb	4/48	4/44	4/42	-----
<i>Gustar</i> agrees with Ind.O.	5/48	3/44	3/42	-----
verb class confusion	-----	5/44	8/42	4/42
wrong verb	-----	-----	17/42	16/42
wrong tense	-----	-----	13/42	10/42
irregular V regularized	-----	-----	14/42	7/42
wrong mood	-----	-----	-----	6/42

LoCoco states that as the students were introduced to more forms, tenses and verbs, as well as mood choice, verb errors increased. However, a question that needs to be considered is - are the students committing more errors due to a con-

fusion of forms, or because they are attempting to say more (perhaps beyond their linguistic capabilities)?

Frantzen and Rissel determined the accuracy order of seven verb morphemes based on the written data from three compositions. The subjects were 14 university students of fourth-semester Spanish. They established their order based on a percentage of correct usages in obligatory contexts. Their findings were:

use of indicative; regular verb stems	98%
irregular verb stems	97%
use of <i>ser</i>	95%
use of preterite; verb suffixes	94%
use of imperfect	91%
use of subjunctive ⁶	78%
use of <i>estar</i>	73%

They attribute the high degree of accuracy in verb morphology to the fact that the compositions were self-generated and therefore exhibited acquired forms. Also, the students had total control over their output and so raised their accuracy scores. Frantzen and Rissel conclude:

The accuracy order posited here may be a manifestation of the processes of simplification and overgeneralization inherent in language acquisition. In each of the categories examined, there seemed to be one form that was basic - one form that was somehow salient and overgeneralized to contexts in which other forms were obligatory. (1987:104)

The basic forms noted in this study were: *ser* for copula; preterite for the past tense; and indicative for mood. Van Naerssen conducted a study to determine the accuracy order for Spanish as a foreign language using data from the final oral exam of 27 Spanish I college students. The accuracy order was determined by applying Spearman's Rank Ordering test to group scored percentages. She omitted structures with less than 15 occurrences and the resultant rank order of verb morphemes was⁷:

6 Research on the acquisition of the subjunctive shows this form acquired late in both the L1 and L2. Frantzen and Rissel attribute the ranking of the subjunctive above *estar* in part to the low number of obligatory contexts generated for the subjunctive (less than 2% of all verb forms).

7 The rank orders presented from here on are based on a total of 13 morphemes (including non-verbal morphemes).

morpheme	% correct	group rank
subject pronouns	95%	1.5
present indicative	75%	5.5
copula ⁸	73%	8.5
preterite	70%	8.5
periphrastic future	60%	11.5

The author admits that there were limitations to this study. First, there was no control on the frequency and use of certain morphemes. Second, due to the type of statistical analyses implemented, no individual variation was recognized. The data do support the hypothesis that there is a natural order or accuracy order that occurs despite the order of instruction or the learner's LI background.

In conclusion, the adult studies indicate that the use of subject pronouns is established fairly early in the order of development, along with the present indicative forms. Nevertheless, there is some confusion among the third person singular and plural forms. The preterite forms seem to follow next in the order. There is mixed data regarding the copula. There are no statistics on the acquisition of the copula forms, only on their semantic distinction and use. The use of *ser* seems to be acquired before the use of *estar*. As no two studies mention the imperfect indicative, the periphrastic future or the present progressive an order cannot be deduced for these forms.

1.5 A comparison of Spanish as LI, child L2 and adult L2

Van Naerssen posited three hypotheses for Spanish morpheme ordering: 1) LI order is similar, but not equal to L2 order; 2) LI order equals L2 order on bound morphemes; and 3) LI order does not equal L2 order on free morphemes. Using the LI order cited in Table 1, she compared structures that were mutual to that order and the L2 order mentioned above. She found a positive, but not significant, correlation between the orders. Thus, LI does not equal L2:

LI morphemes	group rank	L2 morphemes	group rank
pres. ind.	1.5	pres. ind.	5.5
per. future	3.0	copula	8.5
preterite	9.0	preterite	8.5
copula	9.0	per. future	11.5

⁸ Ser had a 95% correct average and estar 50%. These two percentages were averaged and "copula" was given a new percentage of 73% and a revised ranking.

The item which most affected the ordering was the periphrastic future. As shown in the research, it ranks high in accuracy in both child L1 and child L2 acquisition, but it is a lower ranked item in the adult L2 order.

Upon comparing child L2⁹ and adult L2 orders van Naerssen found a positive, but not significant correlation. The verb group rank orders were:

child L2	group rank	adult L2	grouprank
pres. ind.	1.0	pres. ind.	6.0
per. future	2.5	preterite	8.0
preterite	9.0	per. future	11.0

To clarify the findings presented here, van Naerssen indicated that the data from these various studies are not completely comparable: methods for collecting data varied; many constructions were not confirmed across the L2 studies; and some subjective decisions were made, combining statistical data with narrative descriptions and orders of recordings (72).

The question then raised was whether cognitive development may have influenced the differing child L2 and adult L2 orders. To answer this question van Naerssen compared the child L1 and child L2 orders:

child L1	group rank	child L2	group rank
pres. ind.	1.5	pres. ind.	1.0
per. future	3.0	per. future	2.5
preterite	9.0	copula	4.0
copula	9.0	preterite	9.0

Results of this comparison show that with regard to bound morphemes the L1 order equals the L2 order for children learning Spanish. Yet, while the child L1 and L2 orders significantly correlate, there is obvious variation in the acquisition of the copula, a free morpheme.

An analysis of child L1 and adult L2 free morpheme data showed a negative correlation that supported the hypothesis that L1 does not equal L2. The verb forms included in the free morpheme category were the copula and the periphrastic future. The results were inconclusive whether the L1 order equals L2 order on bound morphemes.

Lastly, van Naerssen's findings suggest that the hypothesis that L1 order does not equal L2 order (although they may be similar) is a language specific hypothesis¹⁰. The equivalent orders found for child L1 and child L2 substantiate this position. Another findings is that the distinction between bound and free mor-

9 The child L2 studies include the Culver City and Dato studies.

10 Stephen Krashen in his discussion of the Natural Order Hypothesis has suggested that the L1 and L2 acquisition orders are similar, but not necessarily the same. This position has been maintained in a majority of the English acquisition studies.

phemes may be a significant variable affecting the order of acquisition. Finally, the bound/free distinction as a variable appears to interact with the cognitive development variable. This cognitive development variable emerges as the stronger variable as evidenced by the difficulty orders presented here: child L1 equals child L2, but child L2 does not equal adult L2; and child L1 does not equal adult L2, although they are similar.

BIBLIOGRAPHY

- Beléndez-Soltero, P. (1980) **"Repetitions and the Acquisition of the Spanish Verb System."** PhD Dissertation, Harvard University.
- Blake, R. (1983) **"Mood Selection Among Spanish-Speaking Children, Ages 4 to 12."** *The Bilingual Review* 10: 21-32.
- Boyd, P. (1975) **"The Development of Grammar Categories in Spanish by Anglo Children Learning a Second Language."** *TESOL Quarterly* 9: 125-135.
- Cathcart, R. (1972) **"Report on a Group of Anglo Children After One Year of Immersion in Instruction in Spanish."** M.A. Thesis, UCLA.
- Cohen, A. (1976) **"The Acquisition of Spanish Grammar through Immersion: Some Findings after Four Years."** *Canadian Modern Language Review* 32: 562-574.
- Cohen, S. (1980) **"The Sequential Order of Acquisition of Spanish Verb Tenses Among Spanish-Speaking Children of Ages 3-7."** PhD Dissertation, U. of San Francisco.
- Dato, D. (1970) **"American Children's Acquisition of Spanish Syntax in the Madrid Environment: Preliminary Edition."** Washington, D.C.: Institute of International Studies. (ED 053 633)
- Ellis, R. (1985) **Understanding Second Language Acquisition.** Oxford UP.
- Flores, M. (1973) **"An Early Stage in the Acquisition of Spanish Morphology by a Group of English-Speaking Children."** M.A. Thesis, UCLA.
- Frantzen, D. and D. Rissel. (1987) **"Learner Self-Correction of Written Compositions: What Does it Show Us?"** in B. VanPatten, T. Dvorak and J. Lee (Eds.) **Foreign Language Learning: A Research Perspective.** Newbury House, pp. 92-107.
- Galvan, J. (1980) **"The Development of Aspectual Relations in Spanish-Speaking Children."** PhD Dissertation, University of Texas at Austin.
- Gili Gaya, S. (1972) **Estudios de lenguaje infantil.** Bibliograf, S.A.
- González, G. (1970) **"The Acquisition of Spanish Grammar by Native Spanish Speakers.?"** PhD Diss., U.T. at Austin.
- Gonzalez, G. (1982) **"Expressing Time Through Verb Tenses and Temporal Expressions in Spanish: Age 2.0-4.6."** *NABE Journal* 7: 69-82.
- Hatch, E. (1978) **"Acquisition of Syntax in a Second Language"** in Jack C. Richards (Ed.) **Understanding Second and Foreign Language Learning: Issues and Approaches.** Newbury House, pp. 34-70.
- Kern, K.T. and B.G. Blount. (1966) **"The Acquisition of Spanish Grammar by Mexican Children."** *Anthropological Linguistics* 8:1-14.
- de Lo Coco, V.G.M. (1975) **"An Analysis of Errors in the Learning of Spanish and German as Second Languages."** PhD Dissertation, Stanford University.
- Núñez-Wormack, E. (1979) **"The Acquisition of English and Spanish Grammatical Morphemes by Bilingual Puerto Rican Children."** PhD Diss., Rutgers University of New Jersey.
- Olarte, G. (1985) **"Acquisition of Spanish Morphemes by Monolingual, Monocultural Spanish Speaking Children."** PhD Dissertation, University of Florida.
- Plann, S. (1976) **"The Spanish Immersion Program: Towards Native-Like Proficiency or a Classroom Dialect?"** M.A. Thesis, UCLA.
- Selinker, L. (1972) **"Interlanguage."** *International Review of Applied Linguistics* X: 209-230.
- Slobin, D. (1973) **"Cognitive Prerequisites for the Development of Grammar"** in C. Ferguson and D. Slobin (Eds.) **Studies of Child Language Development** Holt, Rinehart and Winston, Inc.
- van Naerssen, M. (1981) **"Generalizing Second Language Acquisition Hypotheses Across Languages: A Test Case in Spanish as a Second Language."** PhD Dissertation, USC.