

SPANISH WORD ORDER AND COMPLEMENT SUBJECT INTERPRETATION IN CONTROL STRUCTURES BY ADULT ENGLISH NATIVE SPEAKERS*

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The goal of the present study is to compare the acquisitional development between adult English speakers learning Spanish as a second language and children of five- to ten-years of age acquiring Spanish as a native language with respect to the syntactic structures of word order and control. The results of this study suggest some similarities and differences in the acquisition of the native (L1) vs. the acquisition of the target language (L2). The adult English speaker follows the same acquisitional stages as the child acquiring Spanish as his/her native language. It is proposed here that these similarities are explained by assuming the innate universal language acquisition device proposed by Chomsky (1981). The differences are reflected upon the rate of acquisition. The adult L2 learners are slower than the children L1 learners. The adult uses the rules known in his native language in the beginning stages and then, later, he learns the rules of the target language. These differences are explained by interference of the native language.

1.0. INTRODUCTION

Currently, the study of Second Language Acquisition is receiving much attention and an abundant literature on this subject is available. Recent findings provide some insights into the systematization in the process of learning a second language (Huebner 1983: 48), process known as

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interlanguage (IL) (Gass 1984 and Rutherford 1989). Various explanations for the systematization of ILs have been advanced, but most hypothesize an innate language acquisition device (Chomsky 1981) and "a very powerful cognitive contribution by the learner" (Larsen-Freeman and Long 1991: 88). This systematization is reflected in an invariable natural order of acquisition in ILs regardless of the native language (L1) involved. For example, Krashen, Long, and Scarcella (1979) found that 22 adult ESL learners from various L1 backgrounds obtained (from their spontaneous speech) the same order of acquisition of some English morphemes¹. Another illustration of the IL systematization is found in common developmental sequences for learners of different native languages, different ages or in different learning contexts. "The sequences consist of ordered series of IL structures, approximations to a target construction, each reflecting an underlying stage of development. Stages in a sequence are not discrete, but overlap, and are traditionally identified by ascertaining the most frequently used, not the only, IL structure(s) at a given point in time. To qualify as a 'stage', and to constitute an interesting theoretical claim, however, each potential stage must be ordered (with respect to other stages in a sequence)" (Larsen-Freeman and Long 1991: 92, referring to the work by Meisel, Clahsen, and Pinemann 1981 and Johnston 1985).

The main goal of this paper is to provide additional evidence for the systematism of ILs and for the existence of the innate language-specific endowment. This goal is achieved by proposing the order and stages of acquisition of two Spanish syntactic constructions --Word Order and Control-- by 381 English adult speakers learning Spanish in a formal classroom setting.

1.1. WORD ORDER IN SPANISH L1

Echeverría (1978) studied the comprehension of sentences in different Spanish word orders, SVO, SOV, OSV and OVS, by Chilean children from 5- to 10-year-olds. The children had to manipulate some toys to express their comprehension of the experimental sentences. Echeverría proposes the following stages in the acquisition of word order: (i) SVO and SOV, (ii) OSV, and (iii) OVS.

1.2. CONTROL IN SPANISH L1

For the control sentences, Echeverría utilizes the same testing technique. The sentences tested include Control with the same NP used as the target and the control in Equi structures as in (1) and (2) below, and Control with different NPs as the target and the control as in the Equi structures (3) and (4).

¹ See also Krashen, S., V. Sferlazza, L. Feldman, and A. Fathman (1976).

1.2.1. *Same subject in the matrix and subordinate clauses*

- (1) [Pedrito_i le prometió al payaso [pro_i [tomar la pelota.]]]
 NP₁ NP₂
 'Pedrito_i promised the clown that he_i would take the ball.'
- (2) [Pedrito_i le dijo a Susana que [pro_i [se sentaría en la pelota.]]]
 NP₁ NP₂
 'Pedrito_i told Susana that he_i would sit on the ball.'

1.2.2. *Different subjects in the matrix and subordinate clauses*

- (3) [Pedrito_i le ordenó a Susana_j [pro_j [tomar la pelota.]]]
 NP₁ NP₂
 'Pedrito ordered Susana to take the ball.'
- (4) [Tío Rico_i le dijo a Pedrito_j que [pro_j [se sentara en el suelo.]]]
 NP₁ NP₂
 'Uncle Rico told Pedrito to sit on the floor.'

Echeverría found that the comprehension of sentences like (3) and (4) is easier to acquire than (1) and (2). For the *prometer* type of structure, sentence (1), 5- to 8-year-olds scored only 40% correct or below, and the older children, 9- to 10-year-olds, reached a maximum of 64% correct. For the interpretation of sentences like (2), the younger children (5- to 8-year-olds) had problems and scored 60% or below, while 80% correct was scored by 9-year-olds. On the other hand, a comprehension of 80% or above, of both types of sentences, (3) and (4), was reached by 5- to 10-year-olds. Echeverría's results are in accord with Chomsky, C. (1969), who found that the control structure with 'promise' is much more difficult to acquire than the structure with 'order/(tell)'² by English native speakers aged 5 to 10. Chomsky explained her findings by assuming that the children apply the Minimal Distance Principle (MDP) in early stages of acquisition. By this principle, the NP closest to the subordinate verb is assigned as the subject of the subordinate clause. In (3) and (4) the NP₂ *Pedrito* and the NP₂ *Susana* are closest to *tomar* and *sentarse* respectively and so are correctly assigned as subjects. On the other hand, (1) and (2) constitute an exception to the MDP, so in these sentences the NP₁ is the subject of both the matrix and the subordinate verb. The children take some time to become aware of this exception and incorporate this new rule into their grammars rather late.

² Chomsky uses 'tell' rather than 'order' in her study, while Echeverría uses *ordenar*.

1.3. THE PROBLEMS

1.3.1. *Word Order*

English has a fixed word order, SVO (for statements), while Spanish may exhibit a variety of word orders --SVO, SOV, OSV, OVS. Several research questions arise from this difference. What is the order of acquisition of the various Spanish word orders by adult English native speakers? Do the adults follow the same order of acquisition observed in Spanish children? Is there interference from English when learning Spanish L2?

A theory that postulates that the innate language acquisition endowment hypothesized for L1 is also available for L2 would predict that adult Spanish L2 speakers would acquire the Spanish word orders in a manner similar to that of the L1 Spanish children. In a weaker version of this theory, there would be leeway for interference of L1 when acquiring a second language. The results of the present study suggest that interference from English slows down the acquisition of word orders that are different from English; however, the stages in the development of IL are very similar to the stages of acquisition of word order by Spanish children.

1.3.2. *Control*

Spanish and English children have difficulty with the *prometer*/promise type of control structures. They acquire these structures very late, after 10-years of age, whereas the structures with *ordenar*/order(tell) are of early acquisition. A theory of transfer from L1 or of innate language endowment would predict that the adult English speakers learning Spanish L2 would have difficulty with the *prometer* structures but not with the *ordenar* ones. The present study shows that this prediction is true. However, the structures exemplified in (2) with *decir* + conditional and the one in (4) with *decir* + subjunctive do not have an equivalent in English, and yet, the present study shows that these two structures clearly pattern with the structures that share a similar underlying structure: *decir* + subjunctive patterns with *ordenar*, and *decir* + conditional patterns with *prometer*. These facts provide evidence for the systematization of ILs and for the existence of the innate language acquisition endowment, even though mediated by L1.

2.0. METHODOLOGY

The data used in this paper was constructed with interpretation questions for two types of structures, word order and control, with *prometer* 'promise', *ordenar* 'order' and *decir* 'tell'.

2.1. STRUCTURES UNDER STUDY

2.1.1. *Word Order*

A questionnaire with eight sentences exhibiting different word order was used as an interpretation test and included two sentences for each of the following orders: SVO, SOV, OSV, OVS³. For each sentence, two interpretation questions were asked, one asking for the subject and the second asking for the direct object. For example,

Susana golpeó a Pedrito.

- (a) Who is doing the action of hitting?
- (b) Who is being hit?

2.1.2. *Control with prometer 'promise', ordenar 'order' and decir 'tell'*

The same interpretation technique was used with the control structures. Eight sentences involving control were used: two with *prometer* 'promise', two with *ordenar* 'order', two with *pedir* 'ask' and two with *decir* 'tell'. For example,

Susana le pidió al hermano abrir la puerta.

- (a) Who is doing the asking?
- (b) Who is opening the door?

Question (a) asks for the subject of the matrix verb *pedir*, while question (b) asks for the subject of the subordinate verb *abrir*. (See Appendix 1 for all sentences and interpretation questions).

2.2. THE SUBJECTS

Answers to the interpretation questions were elicited from 381 adults, English native speakers. All were students of Spanish at the University of Iowa. They were enrolled from first- to fourth-year classes in the Spanish language program, which follows an eclectic approach to classroom instruction. Their age range is from 18 to 61. Their distribution by age groups is given in Table 1. Their distribution by level or course group is shown in Table 2. In addition, 10 Spanish native speakers were given the

³ Following Echeverría (1978), the orders VOS and VSO are excluded from the experiment because they are normally interpreted as questions. For example, ¿Trajo el libro Juan? or ¿Trajo Juan el libro?

Table 1
AGE DISTRIBUTION

Age	18-19	20-21	22-23	24-29	30-61	Missing	Total
f	104	144	89	22	16	6	381

f = frequency.

Table 2
FREQUENCY AND PERCENTAGES OF POPULATION BY LEVEL/COURSE-GROUPS

Level	Course	f	%	Cum %
First Year	35:01	41	10.8	10.8
	35:02	33	8.7	19.5
	35:03	33	8.7	28.2
	Subtotal	107	28.1	
Second Year	35:11	30	7.9	36.1
	35:12	35	9.2	45.3
	Subtotal	65	17.1	
Third Year	35:105	48	12.6	57.9
	35:107	61	16.0	73.9
	Subtotal	109	28.6	
Fourth Year +	35:108	37	9.7	83.7
	35:111	14	3.7	87.4
	35:116	13	3.4	90.8
	35:130	20	5.2	96.1
	35:160	7	1.8	97.9
	35:172	8	2.1	100.0
	Subtotal	99	26.0	
	Missing	1	.3	
Total		381	100.0	

f = frequency. Cum = cumulative.

same test in order to use their results as a control; these results are exhibited in Table 3 in 3.1.

The group of courses in the fourth-year level are literature classes except for 35:111, which is an introduction to Hispanic linguistics and 35:108, which is a grammar course⁴. The rest of the courses are standard Spanish-language courses. The students in third- and fourth-year classes are pursuing a Major or Minor in Spanish.

⁴ Although students tend to take 35:108 and 35:111 in their fourth year, there is nothing to prevent them from taking these courses in their third year.

2.3. THE ADMINISTRATION

The 16 sentences and 36 interpretation questions were randomized and administered at one sitting in each class by the author and her research assistant. Each sentence was read aloud, and time was given for the students to answer the two interpretation questions. The answer sheet also contained a space to mark the student's age and number of semesters taken in Spanish. The complete test took approximately 25-30 minutes.

3.0. RESULTS AND DISCUSSION

3.1. RESULTS FOR THE NATIVE SPEAKERS

Ten Spanish native speakers, who were also Spanish instructors at the University of Iowa, were given the same questionnaire. Their results exhibit 100% correct interpretation, except for the *prometer* sentences, as shown in Table 3.

Table 3
PERCENTAGES OF CORRECT RESPONSES BY TEN NATIVE SPANISH SPEAKERS

Word Order				Control Structures			
SVO	SOV	OVS	OSV	<i>Ordenar</i>	<i>decir + sub</i>	<i>prometer</i>	<i>decir + cond</i>
%	%	%	%	%	%	%	%
100	100	100	100	100	100	90	100

3.2. PRELIMINARY ANALYSIS

3.2.1. *z-test*

To determine whether the subjects were able to discriminate between "correct" and "incorrect" responses to the interpretation questions, the *z-test* was used with all responses by all subjects. The results of the *z-test* indicate that the responses were not randomly made. The majority of the subjects' responses were statistically significant (equal to or greater than 1.96) in their discrimination between "correct" and "incorrect" responses, as shown in Appendix 2.

3.2.2. *Age*

The five age groups in Table 1 were crosstabulated by correct and incorrect responses to each interpretation question in the questionnaire. The results proved to be statistically non-significant. These results are not surprising since in a formal adult classroom situation age per se is "not so important as the different interactions that learners of different ages have with the situation and with other people" (Cook 1991: 84).

3.2.3. *Number of semesters of Spanish study*

The students were grouped according to the number of Spanish semesters taken as follows: group 1 = 1-2 semesters, group 2 = 3-4 semesters, group 3 = 5-6 semesters, group 4 = 7-8 semesters, and group 5 = more than 8 semesters. These five groups were crosstabulated by correct vs. incorrect responses to each question. The results are given in Table 4 for Word Order and Control structures.

In Table 4 the 'f' columns show the frequencies of correct responses per each interpretation question. The '%' columns show the corresponding percentages. The 'T' (total) column shows the addition of the five 'f' columns. For example, for question 22 the frequency of the group with 1-2 Spanish semesters is 107, the frequency of the groups with 3-4 Spanish semesters is 102, the frequency of the group with 5-6 Spanish semesters is 75, the frequency of the group with 7-8 Spanish semesters is 45, and the frequency of the group with 8 + Spanish semesters is 34. These five frequencies add up to 363, which appears in the 'T' column. The missing observations (M) correspond to those students who answered "not sure" or chose no answer. The remaining number corresponds to those students who incorrectly chose the object or the subject or chose "neither". For example, for question 22 the total of correct answers is 363. There are 8 missing observations, which gives a total of 371; the remaining 10 are incorrect (the object rather than the subject was chosen) or "neither" answers, which gives a grand total of 381.

3.2.4. *Level of Spanish*

The students were also grouped according to the course level in which they were registered. First year includes courses 001, 002, 003; second year, courses 011, 012; third year, courses 105, 107, and fourth year, courses 108, 111, 116, 130, 160, 172. These four level-groups were crosstabulated by correct vs. incorrect responses to each question. The results are exhibited in Table 5.

Table 4
 PERCENTAGES OF CORRECT ANSWERS FOR CROSTABULATION OF
 WORD ORDER AND CONTROL INTERPRETATION QUESTIONS,
 BY NUMBER OF SPANISH SEMESTER GROUPS

Semesters N = 381 Question/	1-2		3-4		5-6		7-8		8+		T	M	DF	Sig
	f	%	f	%	f	%	f	%	f	%				
WORD ORDER														
22	107	93	102	99	75	99	45	100	34	100	363	8	8	.117
23	103	90	96	93	73	97	43	96	33	97	348	9	8	.356
24	47	52	50	62	44	75	27	75	26	87	194	84	8	.006
25	45	50	53	62	44	73	26	74	24	80	192	80	8	.011
26	40	36	31	32	32	44	26	58	25	76	154	20	8	.000
27	39	36	31	32	32	44	26	58	25	76	153	25	8	.000
28	54	57	58	67	45	71	34	87	28	97	219	69	8	.000
29	48	51	57	66	42	69	34	87	25	86	206	72	8	.000
30	101	87	99	96	75	99	44	98	34	100	353	7	8	.009
31	105	91	98	96	75	100	44	98	34	100	356	10	8	.146
32	68	67	72	77	58	89	39	93	28	90	265	47	8	.002
33	61	62	69	75	56	88	38	91	28	90	252	54	8	.000
34	46	42	55	56	47	67	35	78	28	85	211	26	8	.000
35	43	40	57	56	45	65	35	78	27	82	207	25	8	.000
36	59	63	63	68	55	85	36	90	32	97	245	57	8	.000
37	53	58	58	64	55	83	35	90	30	94	231	62	8	.000
CONTROL														
38	106	95	96	93	74	99	43	98	32	100	351	15	8	.526
39	98	88	93	90	68	90	43	98	31	94	330	14	8	.387
40	104	93	97	96	74	97	43	98	34	100	352	14	8	.396
41	55	51	56	55	49	65	32	73	23	68	215	18	8	.119
42	98	91	99	98	73	96	44	100	33	100	347	19	8	.059
43	93	88	87	86	65	87	43	98	28	85	316	22	8	.395
44	101	91	95	94	74	99	44	100	34	100	348	16	8	.126
45	54	52	51	50	47	63	32	76	24	73	208	26	8	.011
46	104	91	97	98	72	97	43	98	34	100	350	16	8	.168
47	68	63	60	63	37	54	24	63	16	59	205	44	8	.489
48	102	91	95	96	67	92	42	98	32	100	338	22	8	.011
49	32	31	32	33	37	54	23	62	16	64	140	53	8	.000
50	96	88	97	96	73	97	43	98	34	100	343	18	8	.061
51	73	73	74	77	49	68	27	75	21	78	244	50	8	.949
52	93	85	94	96	73	99	44	100	33	100	337	23	8	.002
53	33	34	29	32	27	41	19	51	18	69	126	62	8	.001

f = frequency, T = total correct, M = missing observations, DF = degree of difference, Sig = significance value between correct and incorrect responses.

Table 5
 PERCENTAGES OF CORRECT ANSWERS FOR CROSSTABULATION
 OF WORD ORDER AND CONTROL INTERPRETATION
 QUESTIONS BY SPANISH LEVELS

LEVEL N = 381 Sentence	1st		2nd		3rd		4th		T	M	DF	Sig
	f	%	f	%	f	%	f	%				
WORD ORDER												
22	98	93	63	98	107	98	99	100	367	4	6	.06071
23	94	90	55	86	106	98	97	98	352	5	6	.01194
24	33	40	25	52	68	82	70	81	196	81	6	.00000
25	32	40	29	57	66	77	67	77	194	76	6	.00000
26	26	26	11	18	51	49	67	69	155	16	6	.00000
27	26	26	11	19	51	49	67	70	155	21	6	.00000
28	42	51	31	59	70	75	80	91	223	65	6	.00000
29	36	46	29	55	68	73	77	88	210	68	6	.00000
30	93	88	59	92	105	96	99	100	356	3	6	.00769
31	97	92	59	95	105	97	99	100	360	6	6	.08125
32	58	63	42	71	83	87	86	94	269	43	6	.00001
33	50	56	41	71	79	86	86	94	256	50	6	.00000
34	29	29	26	43	76	74	84	87	215	20	6	.00000
35	26	26	27	44	74	73	83	86	210	21	6	.00000
36	47	57	30	53	84	88	87	94	248	53	6	.00000
37	40	50	30	55	80	83	85	93	235	58	6	.00000
CONTROL												
38	96	93	56	89	105	98	96	99	353	11	6	.04817
39	88	86	54	86	99	92	94	96	335	10	6	.17395
40	96	94	55	87	105	97	98	100	354	10	6	.00390
41	48	48	33	54	70	66	67	68	218	15	6	.06504
42	89	90	58	95	105	98	97	99	349	16	6	.01614
43	82	85	56	90	94	88	87	89	319	18	6	.88197
44	93	90	56	90	104	98	98	100	351	12	6	.00967
45	39	40	26	42	74	72	71	74	210	22	6	.00000
46	96	91	53	90	105	98	98	100	352	12	6	.02113
47	67	67	34	59	50	52	54	63	205	41	6	.22502
48	95	93	54	90	101	95	91	96	341	18	6	.02287
49	25	26	21	36	51	54	45	56	142	50	6	.00069
50	90	89	56	92	103	96	96	98	345	14	6	.08637
51	65	68	49	80	66	72	65	77	245	47	6	.65197
52	86	85	54	93	104	96	95	100	339	19	6	.00196
53	24	26	16	29	44	47	43	56	127	60	6	.00109

Level = course groups; 1st = 001, 002, 003; 2nd = 011, 012; 3rd = 105, 107; 4th = 108, 111, 116, 130, 160, 172

A comparison of the results by Spanish semesters in Table 4 with those by course-levels displayed in Table 5 shows that the results are somewhat similar. The questions that ask for interpretation of the subject are easier than the ones asking for interpretation of the object in the Word Order construction (cf. Appendix 1). For example, Q22 --asking for the subject (Who is doing the action of colliding?) in the sentence *El auto chocó al tren* -- has a total of 363 correct answers in Table 4 (by semester) and 367 correct answers in Table 5 (by level), whereas Q23 --asking for the object (Who is being collided?)-- has 348 correct answers in both Tables 4 and 5. The same is true for the Control constructions (cf. Appendix 1 for the questions). However, Table 5 --crosstabulation by level-- shows sixteen questions with statistically significant results ($p < .001$), while Table 4 exhibits only eleven such results. Based on these findings, the crosstabulation by level seems to be more reliable and, therefore, all statistical tests and calculations were done by levels of Spanish rather than by number of semesters of Spanish study.

3.3. STATISTICAL ANALYSES AND RESULTS

3.3.1. *Acquisitional development of Word Order and Control*

In order to have a closer look at the development in the acquisition of the structures under study, the correct results for the interpretation of all questions are summarized in Table 6, arranged by construction type and by individual courses. Part (a) includes the results for Word Order and part (b) the results for Control.

Table 6 (a) indicates the development of acquisition of Spanish Word Order. In general, most of the scores which refer to the interpretation of the object (columns labelled O) are below the scores of the questions which ask for the interpretation of the subject (columns labelled S) in the various Spanish word orders. For example, for the SOV structure the scores in the Q33-column (interpretation of object) are lower (or the same) than the Q32-column (interpretation of subject).

Furthermore, there is a very noticeable growth in the scores corresponding to the increase in course level in the various word orders. For SVO, the first year courses (001, 002, 003) reach a score of 80% or above. Second year courses (011, 012) and third year courses (105, 107) share a similar score ranging between 79% and 100%. The fourth year courses (108, 111, 116, 130, 160, 172) have scores close to 100% correct. The slightly lower score in 108 may be due to the fact explained in footnote 4. A further suggestion brought out by the scores in Table 6 is an increase in difficulty of acquisition for the various Spanish word orders. Predictably, the SVO order is the easiest (highest scores) because English shares the SVO order for statements. The second order of difficulty seems to be SOV,

Table 6
 CROSTABULATION OF CORRECT INTERPRETATION OF WORD ORDER AND CONTROL QUESTIONS BY EACH COURSE GROUP

(a) WORD ORDER

	SVO				SOV				OSV				OVS			
	Q30	Q31	Q22	Q23	Q32	Q33	Q24	Q25	Q36	Q37	Q28	Q29	Q34	Q35	Q26	Q27
	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O
Course%Correct																
001	88	93	93	95	64	54	39	33	32	30	42	37	21	16	13	16
002	82	88	94	84	53	50	33	41	69	56	48	50	27	23	31	29
003	94	94	94	88	72	64	48	44	71	65	64	50	41	41	36	34
011	100	100	100	100	76	71	42	55	46	44	50	46	41	43	11	16
012	100	96	97	79	68	71	59	59	59	64	66	62	44	44	24	21
105	94	94	100	91	93	93	76	74	88	86	75	75	80	78	50	50
107	98	98	96	98	83	81	87	79	87	80	76	72	69	68	48	48
108	95	97	100	100	91	91	68	66	86	91	88	85	83	81	58	57
111	100	100	100	86	93	93	92	83	100	92	92	83	86	86	71	79
116	100	100	100	100	100	100	83	75	100	100	100	100	100	100	92	92
130	100	100	100	100	90	90	88	88	95	90	94	90	90	90	74	74
160	100	100	100	100	100	100	100	100	100	100	80	80	71	71	57	57
172	100	100	100	100	100	100	75	75	100	100	88	88	88	88	75	75

(b) CONTROL

	DIFFERENT SUBJECTS								SAME SUBJECT							
	<i>Ordenar</i>				<i>Decir + Subj.</i>				<i>Prometer</i>				<i>Decir + Cond.</i>			
	Q38	Q39	Q42	Q43	Q46	Q47	Q50	Q51	Q40	Q41	Q44	Q45	Q48	Q49	Q52	Q53
	m	s	m	s	m	s	m	s	m	s	m	s	m	s	m	s
Course%Correct																
001	95	81	91	82	87	69	81	68	92	44	84	29	95	17	84	17
002	85	91	84	77	88	66	91	66	94	41	88	43	84	33	75	36
003	100	88	94	94	100	66	97	70	97	58	100	49	100	29	97	26
011	77	80	93	83	82	50	83	76	80	57	86	48	83	36	90	22
012	100	91	97	97	97	67	100	84	94	52	94	36	97	36	97	35
105	98	96	100	94	100	50	98	70	100	71	100	74	98	63	98	53
107	98	88	97	85	97	54	95	73	95	62	97	70	93	48	95	43
108	97	92	97	84	100	49	97	71	100	73	100	75	89	46	100	47
111	100	100	100	86	100	58	100	70	100	64	100	77	100	78	100	70
116	100	100	100	100	100	82	100	82	100	69	100	77	100	44	100	44
130	100	100	100	95	100	69	100	78	100	70	100	70	100	67	100	67
160	100	86	100	71	100	71	100	86	100	71	100	71	100	67	100	57
172	100	100	100	100	100	86	86	100	100	43	100	71	100	50	100	67

S = question asks for interpretation of subject. O = question asks for interpretation of object.
 m = matrix subject. s = subordinate subject.

followed by OSV; the most difficult order to acquire is OVS, with most scores in this construction dramatically low for both the interpretation of subject and of object.

Table 6 (b) shows the development of the acquisition of the Control structures. The *prometer* (Q40-41, Q44-45) and *decir* + conditional (Q48-49, Q52-53) sentences --exemplified in (1) and (2) in the introduction-- have a similar structure in that they both share the same subject for the matrix and subordinate verbs. These structures seem to be more difficult (lower scores) than the *ordenar* (Q38-39, Q42-43) and *decir* + subjunctive (Q46-47, Q50-51) structures (cf. sentences (3) and (4) above), which have a different subject for the matrix verb and for the subordinate verb. The scores here also reveal a gradual acquisition of these two control constructions according to course levels, with the following order of difficulty: (i) *ordenar*, (ii) *decir* + subjunctive, (iii) *prometer* and (iv) *decir* + conditional.

3.3.2. Means

In order to verify the acquisition order suggested by the scores in Table 6, mean scores were calculated and graphed for the Word Order and Control structures under study. The scores for individual sentences were averaged by clusters of sentences which share the same structure. For example, Figure 3 exhibits the average (mean) of correct responses for the interpretation questions asking for the subject of the matrix in the structures with *ordenar* (Q38, Q42), *decir* + subjunctive (Q46, Q50), *prometer* (Q40, Q44) and *decir* + conditional (Q48, Q52). The horizontal axis represents the course levels: first, second, third and fourth year.

3.3.2.1. Mean of Correct Interpretation of the Subject and Object in Different Word Order Structures

Figure 1 displays the results for the interpretation of the subject in different Spanish word orders and Figure 2 shows the results for the interpretation of the object. Amazingly, the general results in both figures follow the stages proposed by Echeverría for children: (i) SVO, SOV, (ii) OSV and (iii) OVS⁵. The main difference between the results of the adults Spanish L2 and the children Spanish L1 is the obvious distance in scores between the SVO order and the other three orders. The children

⁵ Although Echeverría puts SVO and SOV together in the first stage, his raw results show that the SOV obtained scores a little below those of SVO, especially for the 7.5-year-olds.

have more similar scores for SVO and SOV. The difference for the adults Spanish L2 may be due to the process of interference from English. They take longer to realize that the SOV is a valid Spanish word order because they are holding on to their native order SVO. A further difference between adults Spanish L2 and children Spanish L1 is in the acquisition of the OVS order. The younger children (5.5) start with a score of 58% correct, but the older children (9.6) reach 98% correct. In other words, the OVS order is the most difficult order to acquire, but the children do acquire it by age ten, whereas the adults Spanish L2 start at 40% correct in first year and reach 70% correct in fourth year. There is an improvement with increase of instruction; however, complete acquisition seems to be harder than for children. With respect to the OSV order, the children have less difficulty than with OVS and they also complete acquisition by age ten. The adults Spanish L2 show a similar difficulty in the acquisition of the OSV and SOV orders.

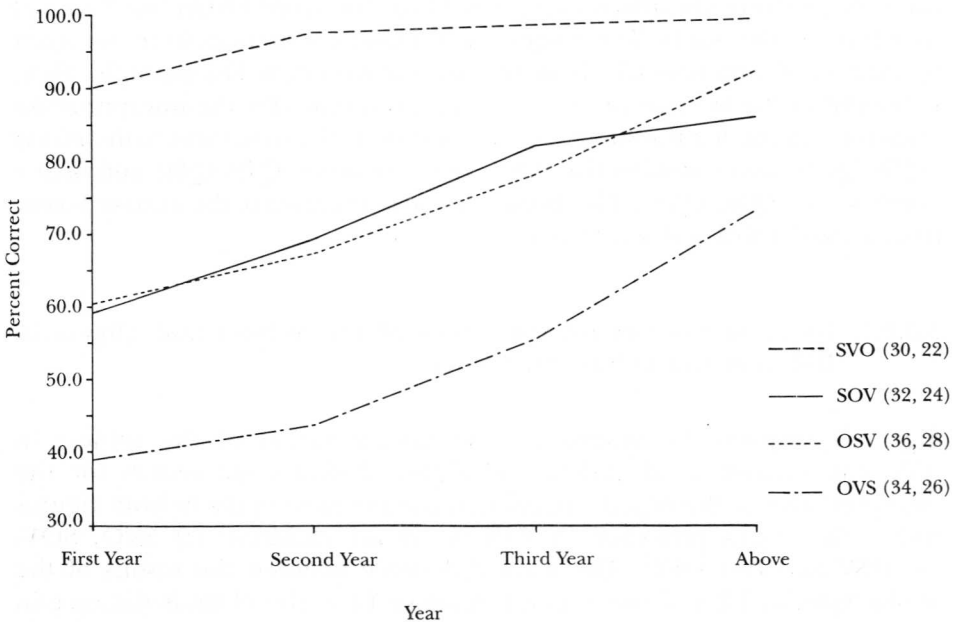


Figure 1

MEAN OF CORRECT INTERPRETATION OF THE SUBJECT IN DIFFERENT WORD ORDER

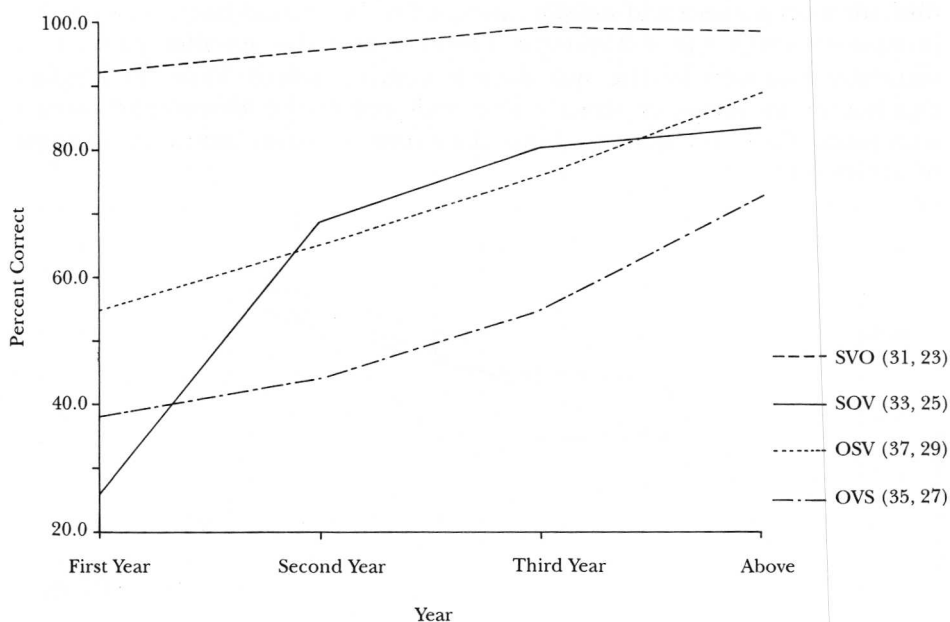


Figure 2

MEAN OF CORRECT INTERPRETATION OF THE
OBJECT IN DIFFERENT WORD ORDER

3.3.2.2. Mean of Correct Interpretation of the Subject of the Matrix Verb in the Control Structures

The structures with *prometer* and *ordenar* have equivalents in English; however, there is no equivalent of *decir* + subjunctive and *decir* + conditional. Therefore, it is expected that the adults will not have difficulties interpreting the matrix subject in the *prometer* and *ordenar* structures, but they may have some difficulties with the two *decir* structures. This is what is found and shown in Figure 3.

It can be observed in Figure 3 that the first-year students obtained the lowest scores. However, they are above 88%, which can be taken as nearly complete acquisition of all four structures for the interpretation of the subject. Likewise, the second-, third- and fourth-year students attained scores above 95%, which indicates complete acquisition. The acquisition for *decir* + conditional seems to be the most difficult in this group of structures. This is predicted from the theory of interference outlined in the introduction: since there is no equivalent of this structure in English, acquisition in Spanish L2 becomes harder. The same explanation may also be true for the *decir* + subjunctive structure, which seems to me more

difficult than *prometer* and *ordenar* --except for the second-year students who intensively study the subjunctive. Observe also the parallel pattern of difficulty followed by the two *decir* structures, which have no English equivalents, vs. the more straight lines followed by the *prometer* and *ordenar* structures. There is a general trend of increase of acquisition with increase of instruction.

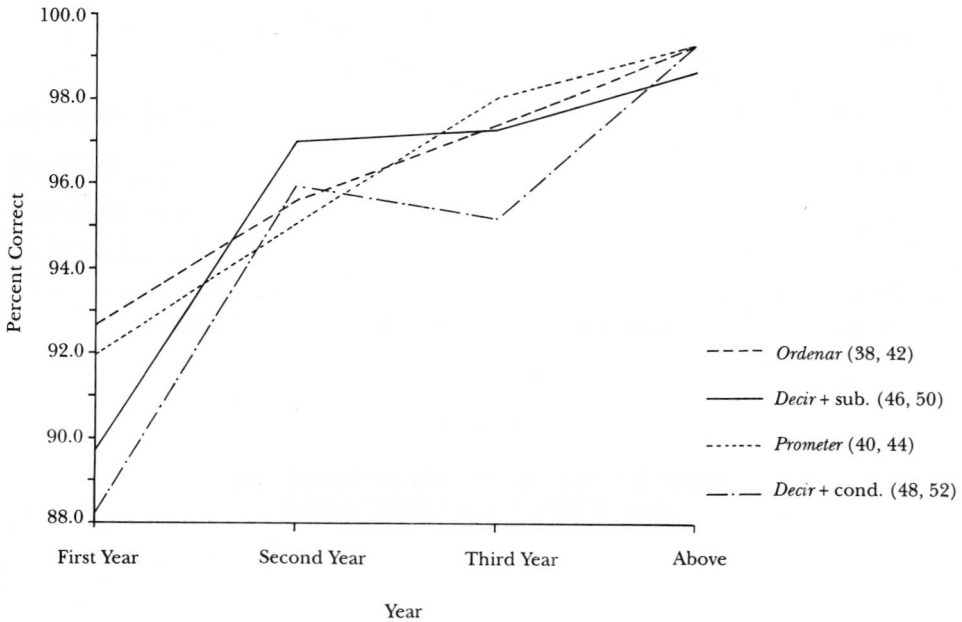


Figure 3

MEAN OF CORRECT INTERPRETATION OF THE SUBJECT OF THE MATRIX VERB

3.3.2.3. Mean of Correct Interpretation of the Subject of the Subordinate Verb in the Control Structures

The results graphed in Figure 4 indicate a clear distinction between the two types of Control structures. (i) The *ordenar* and *decir* + subjunctive structures, which obey the MDP and have a different subject in the matrix and in the subordinate clause, exhibit high scores, 60-70% correct for *decir* + subjunctive and close to 90% correct for *ordenar*. (ii) The *prometer* and *decir* + conditional structures, which constitute an exception to the MDP and share the same subject in both matrix and subordinate clauses, obtained lower scores (33-70%). These results suggest that the structures that do not have equivalents in English are harder to acquire for the English speakers

learning Spanish L2. Further, the results provide evidence for positing a similar syntactic structure for *ordenar* and *decir* + subjunctive and for *prometer* and *decir* + conditional, as in examples (1)-(4) in the introduction. Furthermore, these findings are consistent with Echeverría's (1978) results for Spanish-speaking children and with Chomsky's (1969) results for English-speaking children. Both groups have no difficulty with the *ordenar*/order(tell) type of structure but they have great difficulties with the *prometer*/promise type. Chomsky proposes four stages in the acquisition of 'promise / tell': (i) promise - all wrong, tell - all correct; (ii) promise - mixed, tell - mixed; (iii) promise - mixed, tell - all correct; and (iv) promise - all correct, tell - all correct. She proposes that the child in the early stages has learned the MDP and has not yet become aware of the 'promise' exception. The child consistently assigns the second NP as subject of the subordinate clause. Later, the child learns that "MDP sometimes does not apply, and the uniformity he formerly exhibited breaks down.. he is in a transitional phase... Finally he gains complete control over his new rule for 'promise,' and applies it consistently" (Chomsky 1969:38).

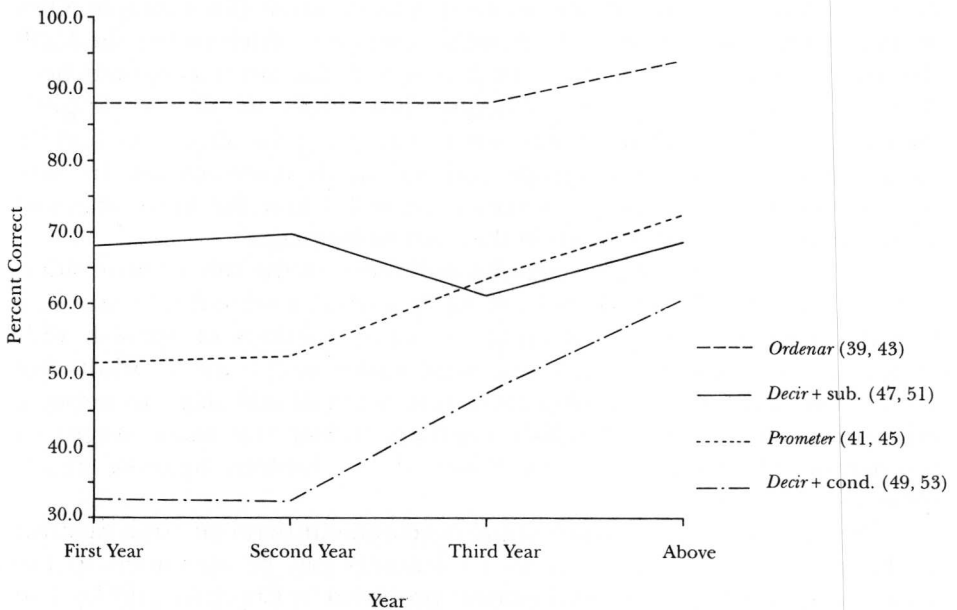


Figure 4
 MEAN OF CORRECT INTERPRETATION OF THE
 SUBJECT OF THE SUBORDINATE VERB

4.0. CONCLUSIONS

Corder (1967:166) claimed that the acquisition process of the child L1 might be similar to the adult L2, further stating that "a human being will learn a second language if he is exposed to the language data". Following Corder, several studies have focused on the similarities and differences between the acquisition of L1 by children and L2 by adults.

The area of morphology has found some similarities and differences between the acquisition of Spanish morphemes by children L1 learners and by adults L2 learners (van Naerssen 1980). In the area of Spanish syntax, there are some studies on the acquisition of Spanish L2 (Liceras 1993), but, to my knowledge, comparisons between L1 and L2 for Spanish syntax are non-existent. The present study contributes to shedding some light on the understanding of the acquisition of Spanish syntax by children L1 learners and adults L2 learners.

The present study has shown that the adult English speaker learning Spanish L2 follows the same stages of acquisition as the Spanish L1 children in word order and some control structures. There are some differences in the rate of acquisition. The adults are slower than the children in acquiring: (i) the structures that do not have an English equivalent (for example, *decir* + conditional and *decir* + subjunctive) and (ii) those structures that are of late acquisition by children (for example, OVS order and the interpretation of subordinate subject, which violate the MDP (for example, in the structure with *prometer*). It has been suggested here that the adults' slower rate of acquisition might be due to English interference. The adult will spend some time using the structures that he already has in his native language and will slowly move toward the new rules in the second language; however, he will follow the same stages of acquisition followed by children in their native language.

The results of this study suggest a difference in the rate of acquisition between adult English speakers learning Spanish as a second language in a formal classroom setting and children native speakers of Spanish with respect to two syntactic structures, word order and control. Adults are slower than children in passing from one acquisitional stage to another but, surprisingly, adult English speakers follow the same stages of acquisition of Spanish that are followed by children Spanish native speakers.

The similarity in the acquisitional development between adult Spanish L2 learners and children Spanish L1 learners can be attributed to the innate language acquisition endowment proposed by Chomsky (1981). The difference in rate of acquisition might be due to interference of the native language. In the areas where L1 and L2 are similar, the L2 acquisition is faster --SVO word order, for example. However, in the areas where L1 and L2 differ --Spanish OVS word order, for example-- the L2 learner will utilize the rules already known in his native language in the first

acquisitional stages, and then, slowly, he will incorporate the new rules of the second language into his new L2 grammar. Furthermore, the syntactic structures that are of late acquisition by children in both the native language and the target language, will also be of late acquisition by adult L2 learners. Again, this similarity is attributable to the universal language acquisition device.

In summary, the results of this study provide evidence in favor of the innate universal language acquisition device facilitated (rather than interfered) by the rules known in the native language.

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APPENDIX 1

TEST SENTENCES

A number of structures were tested that are not reported on this paper. This appendix contains only those sentences that are relevant to Word Order and Control as discussed in this paper. The numbering system from the original test is retained.

(a) *Sentences used to test the interpretation of different Word Orders*

22. *El auto chocó (collided) al tren.*

Who is doing the action of colliding?

- A. the car B. the train C. neither D. not sure

Who is being collided?

- A. the car B. the train C. neither D. not sure

23. *El auto al tren chocó.*

Who is doing the action of colliding?

- A. the car B. the train C. neither D. not sure

Who is being collided?

- A. the car B. the train C. neither D. not sure

24. *Al tren chocó el auto.*

Who is doing the action of colliding?

- A. the car B. the train C. neither D. not sure

Who is being collided?

- A. the car B. the train C. neither D. not sure

25. *Al tren el auto chocó.*

Who is doing the action of colliding?

- A. the car B. the train C. neither D. not sure

Who is being collided?

- A. the car B. the train C. neither D. not sure

26. *Susana golpeó a Pedrito.*

Who is doing the action of hitting?

- A. Susana B. Pedrito C. neither D. not sure

Who is being hit?

- A. Susana B. Pedrito C. neither D. not sure

27. *El niño al hermano golpeó.*

Who is doing the action of hitting?

- A. the boy B. the brother C. neither D. not sure

Who is being hit?

- A. the boy B. the brother C. neither D. not sure

28. *Al tío golpeó Susanita.*

Who is doing the action of hitting?

- A. the uncle B. Susanita C. neither D. not sure

Who is being hit?

- A. the uncle B. Susanita C. neither D. not sure

29. *Al niño el tío golpeó.*

Who is doing the action of hitting?

- A. the boy B. the uncle C. neither D. not sure

Who is being hit?

- A. the boy B. the uncle C. neither D. not sure

(b) *Sentences used to test the interpretation of Control in Ordenar and Prometer*

30. *Pedrito le ordenó a Susana tomar la pelota.*

Who is giving the order?

- A. Pedrito B. Susana C. neither D. not sure

Who is taking the ball?

- A. Pedrito B. Susana C. neither D. not sure

31. *Susana le prometió a la hermana comprar el libro.*

Who is giving the promise?

- A. Susana B. the sister C. neither D. not sure

Who is buying the book?

- A. Susana B. the sister C. neither D. not sure

32. *Susana le pidió al hermano abrir la puerta.*

Who is doing the asking?

- A. Susana B. the brother C. neither D. not sure

Who is opening the door?

- A. Susana B. the brother C. neither D. not sure

33. *Susana le prometió a la hermana cantar la canción.*

Who is doing the promising?

- A. Susana B. the sister C. neither D. not sure

Who is singing the song?

- A. Susana B. the sister C. neither D. not sure

34. *Pedro le dijo a Susana que comprara el libro.*

Who is doing the telling?

- A. Pedro B. Susana C. neither D. not sure

Who is buying the book?

- A. Pedro B. Susana C. neither D. not sure

35. *Tomás le dijo al hermano que compraría el libro.*

Who is doing the telling?

A. Tomás B. the brother C. neither D. not sure

Who is buying the book?

A. Tomás B. the brother C. neither D. not sure

36. *Susana le dijo a Pedrito que abriera la puerta.*

Who is doing the telling?

A. Susana B. Pedrito C. neither D. not sure

Who is opening the door?

A. Susana B. Pedrito C. neither D. not sure

37. *Pedrito le dijo a Susana que leería el libro.*

Who is doing the telling?

A. Pedrito B. Susana C. neither D. not sure

Who is reading the book?

A. Pedrito B. Susana C. neither D. not sure

APPENDIX 2

Z-SCORES

Discrimination between correct vs. incorrect/neither responses by course levels. (* = 1.96; ** = 2.58; *** = 100%).

Level	1st	2nd	3rd	4th
A. WORD ORDER				
SENTENCE				
(a) <i>Correct interpretation of the subject</i>				
L22	**	**	**	***
L24	1.85	.28	**	**
L26	**	**	.20	**
L28	.18	1.33	**	**
L30	**	**	**	***
L32	**	**	**	**
L34	**	1.10	**	**
L36	1.28	.45	**	**

Level	1st	2nd	3rd	4th
(b) <i>Correct interpretation of the object</i>				
L23	**	**	**	**
L25	*	1.01	**	**
L27	**	**	.20	**
L29	.71	1.03	.76	**
L31	**	**	**	***
L33	1.14	**	**	**
L35	**	.95	**	**
L37	.00	.75	**	**

B. CONTROL

(a) Prometer: *Interpretation of matrix subject*

L40	**	**	**	***
L44	**	**	**	***
L48	**	**	**	**
L52	**	**	**	***

(b) Prometer: *Interpretation of downstairs subject*

L41	.40	.63	**	**
L45	*	1.28	**	**
L49	**	*	.78	1.09
L53	**	**	.58	1.06

(c) Ordenar: *Interpretation of matrix subject*

L38	**	**	**	**
L42	**	**	**	**
L46	**	**	**	***
L50	**	**	**	**

(d) Ordenar: *Interpretation of downstairs subject*

L39	**	**	**	**
L43	**	**	**	**
L47	**	1.39	.39	*
L51	**	**	**	**
