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SPANISH TRANSFER EFFECTS IN THE ENGLISH WRITING OF ELEMENTARY SCHOOL STUDENTS*

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This paper investigates the language-specific influences in L1 Spanish and L1 English elementary students writing in English. A total of 545 texts (311 English L1; 234 Spanish L1) were analyzed for various linguistic features such as pronoun use, modal verbs, coordination and subordination features. The results from these analyses were then compared with the results of other studies with adult writers. Results appear to confirm a number of earlier assertions about the Spanish L1 transfer effects when writing in English, particularly with regard to the use of elaborate style. This paper also confirms the usefulness of lexico-syntactic analyses as a means for exploring text variation and discourse function from a contrastive rhetoric perspective.

1. INTRODUCTION

The language-specific influences of Spanish-as-an-L1 on the development of writing abilities among ESL/EFL students is a topic which has been discussed in Applied Linguistics circles for almost thirty years. Going back to Kaplan's (1966, 1972) early work on contrastive rhetoric, the argument was made that Spanish transfer effects on ESL writers created texts which revealed rhetorical digressions and elaborations not typically associated with English writing. This research, based on a discourse analysis methodology that was somewhat intuitive, came under a fair amount of criticism through the 1970s and 1980s (but see Grabe and Kaplan 1989, Leki 1991).

In the 1980s, the effects of the Spanish L1 on ESL student writing was pursued with greater methodological rigor; it also was marked by a shift from directly examining rhetorical effects on a discourse level to an examination of the syntactic and lexical reflexes of discourse constructs (Lux 1991, Lux and Grabe 1991, Reid 1988). This shift to the study of lexico-syntactic variables follows L1 research in English discourse analysis. For example, English L1 discourse analysis research of the 1980s argued that certain types of subordinate clauses (causal,

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conditional), *that* clauses, and simple sentence conjunctions tended to relate to a more informal, conversation (or oral) style in writing. Certain types of subordination, such as relative clauses, infinitive clauses, and participial clauses related to greater emphases on information over involvement in writing and a more integrated writing style. Measures such as words per T-unit, word length, number of parenthetical clauses, and number of clauses per T-unit related to a notion of sentence elaboration in writing. Finally, certain constructions related to greater information density such as prepositional phrases, reduced relative clauses, nominalization, and complex noun phrases (Beaman 1984, Biber 1988, 1992, to appear, Chafe 1985, Chafe and Danielowicz 1987, Halliday 1989, Thompson 1984, 1985).

This overall research direction, one combining careful quantitative analyses of the syntactic and lexical markers of discourse functions in English, has been incorporated in a number of cross-linguistic research studies that specifically examined Spanish-English contrasts. In these cases, the interpretative assumptions noted above –such as an interactional style, an informational style, an integrated style, an elaborated style, an emphasis on information compression– are not assumed, but are examined in light of the cross-linguistic analyses. This comparative research has the additional applied goal of examining the potential support or interference which a writing student might encounter as s/he moves from one language to the second and develops her/his second-language literacy skills.

1.1. *Recent quantitative research on Spanish/English contrasts*

In one of the first major cross-linguistic studies employing extensive quantitative measures, Reid (1988) examined English writing variation among four language groups: Arabic (n = 95), Chinese (n = 261), Spanish (n = 184), and English (n = 228) L1 writers[1]. The non-English L1 groups were all persons taking the TOEFL exam and the initial versions of the Test of Written English (TWE). Reid received permission from Educational Testing Service (ETS) to analyze these essays tests, as well as a control sample of English L1 essays that ETS had collected. Equal subgroups wrote on one of two essay topics, one being a chart/graph prompt, the other a comparison-contrast prompt. All subjects had 30 minutes for the assigned task.

The essays were typed into a computer and analyzed by means of the Writer's Workbench, a program which provides a number of reliable lexico-syntactic frequency measures of the essays (Fraze et al. 1985). Of particular importance are those measures that have been discussed in other research studies and measures which have some bearing on possible discourse functions in the texts. Focusing

[1] The Spanish writers in Reid's (1988) study took the TOEFL exam and experimental TWE at the following sites: Bogota, Colombia; Santiago, Chile; Mexico City, Mexico; Lima, Peru; and Caracas, Venezuela.

specifically on the Spanish L1 writers and the comparison English L1 group, the following results were reported:

1. Spanish L1 writers wrote significantly longer sentences.
2. Spanish L1 writers used significantly more pronouns and conjunctions.
3. Anglo-American writers wrote significantly longer essays.
4. Anglo-American writers used significantly longer words.
5. Anglo-American writers used a significantly greater number of content words.
6. Anglo-American writers used significantly more nouns, prepositions, and passives.
7. Both groups used similar numbers of complex sentences and adverbial subordinators.

Based on these results, Reid argued that Spanish L1 writers of English indicate a preference for "loose coordination" in their writing, following the term given in Ostler (1987). She also argued that the Anglo-American writers tended to prefer a more informational style, based on the longer words, the use of more content words, and the use of more nouns, prepositions, and passives. The less frequent use of pronouns and coordinating conjunctions also supports this preference for Anglo-American writers in comparison with the Spanish L1 writers (cf. Biber 1988). A measure noted here which reappears frequently in other studies is the longer sentences for the Spanish writers. In this case, the greater length for Spanish L1 writers was attributed to greater use of coordinating structures.

In a second recent dissertation study, Montaño-Harmon (1988, 1991) also examined writing variation among four groups: Mexican secondary students writing in Spanish, immigrant Mexican-American secondary students recently in the U.S., Spanish L1 secondary students who grew up in the U.S., and Anglo-American secondary students. The latter three groups all wrote in English for the study. As background to the study, Montaño-Harmon also analyzed 25 secondary-school language texts used in Mexico. This was done to examine the types of educational training which could influence Mexican student writing. She reported that, of the 25 textbooks, only two addressed issues related to paragraph and text organization though all emphasized effective communication based on eloquence –this was to be achieved through improved vocabulary and the elaboration of ideas to develop a theme. In addition, she reported on a translation text, by Vásquez-Ayora (1977), which argued that Spanish used longer sentences, had more subordination, used freer word-order variation, and had a more elegant (formal) style.

In the study itself, all students wrote a 30 minute personal-opinion essay on how they felt about their own education. From these essays, 200 were selected for analysis, 50 from each of the four groups. Of particular relevance for the present study are her findings which compared the writing of Mexican students writing in Spanish and Anglo students writing in English. The following is a list of quantitative results (as reported in Montaño-Harmon, 1991):

1. Spanish writers wrote significantly longer sentences.
2. Spanish writers wrote significantly longer essays.
3. Spanish writers had significantly more run-on sentences.
4. Spanish writers had significantly fewer simple sentences.
5. Spanish students used significantly more synonyms.
6. Spanish students used significantly more additive and causal conjunctions.
7. Spanish students used significantly more personal pronouns.
8. Spanish students used significantly more explicative relations (provided more reasons).
9. Spanish students made significantly greater use of additive organization (a simple additive listing of information) whereas Anglo students made much greater use of enumerative organization (explicitly using *first, second, then, finally,* etc. as signalling organization).
10. Spanish students had significantly more deviations from the main theme and announced these deviations.

In addition, Montaño-Harmon noted that Spanish students used more repetition (though not a significant difference), used more elaborated word phrasings, and a much wider range of word orders (the latter two were not tested quantitatively).

In her interpretations of the quantitative results, Montaño-Harmon (1991) argued that the Anglo-American writers organized their essays in a logical-deductive style, relying on enumerative transition words to signal the text structure. "The Anglo-American students used simple vocabulary, few synonyms, and no flowery language. Their texts also contained significantly fewer deviations than those written in Mexican Spanish" (424). The Mexican Spanish writers, in contrast, wrote longer sentences and fewer simple sentences, pointing to the elaborated style noted in Reid (1988) and Vásquez-Ayora (1977) (see also Ostler 1987). This "elaborated style" is reflected in greater sentence length, greater use of coordinating structures, and equivalent use of subordinating clauses. At the same time, the greater use of additive and causal conjunctions supports the arguments proposed by Reid (1988) and Ostler (1987) that Spanish writing style prefers "loose coordination."

More recent analyses of Spanish/English contrasts were undertaken by Lux (1991, Lux and Grabe 1991). In his dissertation, he examined a number of the claims noted by Ostler (1987), Reid (1988), and Montaño-Harmon (1988) with respect to Spanish/English writing comparisons. In particular, he reviewed earlier evidence that Spanish writers use longer sentences (Santana-Seda 1974, Reid 1988, Montaño-Harmon 1988), use as much, or more, clausal subordination (Santana-Seda 1974, Reid 1988, Ostler 1987), use more "loose coordination" (Montaño-Harmon 1988, 1991, Ostler 1987, Reid 1988), and may use a more interactive style (based on fewer prepositions, nouns, and passives, but more pronouns and conjunctions (Reid 1988)).

In Lux's (1991) study, he compared the essay writing of four groups of university students (n = 158): Ecuadorians writing in Spanish as their L1 (n = 51), Ecuadorians writing in English as their L2 (n = 30), Anglo-Americans writing in English as their L1 (n = 41), and Anglo-Americans writing in Spanish as their L2 (university foreign language) (n = 36). Students all wrote for 50 minutes on an argumentative theme asking them to take a position on the role of testing in higher education. The most important results for the present study are the comparisons between the Ecuadorian students writing in Spanish and the Anglo-American students writing in English. Quantitative differences that were reported are given as follows:

1. Spanish students wrote significantly longer T-units.
2. Spanish students wrote significantly more adjective clauses (relative clauses and infinitive noun complements) per T-unit.
3. Spanish students wrote significantly more adverbial clauses (conditional, causal, purpose, concessive, temporal, etc.) per T-unit.
4. Spanish students wrote significantly more nominal clauses (verbal infinitive and *that* complements) per T-unit.
5. Spanish students used significantly more prepositions, nominalizations, finite verbs.
6. Anglo-American students wrote significantly longer essays.
7. Anglo-American students used significantly more locative adverbs (e.g., after, inside, later, yesterday) and lexical repetition.
8. No differences were found between groups for use of passives, infinitives, WH clauses, pronouns, or coordinate conjunctions.

These results support a number of findings and interpretations from other studies; certain results, however, contrast with earlier findings. The set of results 1-4 provide strong additional support for the claims that Spanish writers prefer a more elaborated style and make greater use of subordination overall. This result is consistent for Spanish students planning to come to the U.S. for university study (Reid 1988), for Mexican secondary school students (Montaño-Harmon 1988), and for Ecuadorian university students from technical disciplines (Lux 1991). This result also lends support to the notion that Spanish writing is more ornate, and formal, a conclusion borne out in this case by the greater use of prepositions and nominalizations. The lack of differences in the use of pronouns, WH clauses, and coordinate conjunctions, as well as the lesser use of locative adverbs by Spanish L1 writers further suggest this formal style interpretation (an informational style preference). Thus, Lux's results would argue against an interactive conversational style preference and against a loose coordination style in Spanish writing.

The discrepancies between Lux's findings 4-8 above and other studies may be due to the different groups of writers. The Ecuadorian students were technical students in the university. Lux's Anglo-American students were freshman students

from across disciplines and may not have been as adept, overall, at argumentation. Further, the students in Montaño-Harmon's study were all general secondary-school students. That difference plus the age difference may account for some of the contrastive findings between Lux and Montaño-Harmon. Reid's (1988) study, however, since it covers a wide range of student writers under careful controlled conditions, still provides support for the conclusions drawn by Montaño-Harmon.

Taken together, the three major recent studies reviewed above consistently support the notion of a Spanish writing preference for elaboration and for greater, or equal, use of subordination. At the same time, the contradictory results with respect to coordination, pronouns used, and text length are still open to further investigation. In addition, all three major studies used adult and adolescent subjects. This raises the question as to whether student maturity has influenced the general results and arguments. In the cases of Spanish students writing in English as their second language, it is also not clear how their many years of English instruction might alter their English writing performance and counter potential Spanish L1 influences.

Fortunately, two of the studies focused primarily on cross-language comparisons with Mexican and Ecuadorian students writing in Spanish. Thus, the conclusions drawn are not based solely on English L2 writing. It is worth noting, however, that many of the results converge to a similar set of findings, whether the students were writing in Spanish (their L1) or in English (as their L2). Further, differences in results appear between comparisons using Spanish L1 writing as one source, so one could not say that the discrepancies are due to one study using Spanish L1 texts and the other study using English L2 texts. In some respects, then, this review of results demonstrates the viability of the often criticized use of English L2 texts to interpret Spanish L1 influences.

1.2. *Elementary Spanish L1 writers and Spanish/English contrasts*

One strength of the above set of studies is that the research subjects being studied were relatively similar. All were academically oriented, relatively advanced in their ESL status, and adults/adolescents. At the same time, this population limits, to some extent, the generalizations that can be made with respect to Spanish L1 transfer effects. The crucial issue is whether other populations of Spanish L1 students would add further support to various claims. In particular, the writing of elementary-level students has been generally ignored.

One recent study by Carlisle (1989) has examined the English writing of different groups of elementary-school students. In his study covering six schools in the Chicago area, Anglo-American 4th and 6th grade students (n = 20) were compared with Spanish L1 bilingual students (n = 23) and Spanish L1 submersion students (less Spanish influence both in the home and at school, n = 19). In addition to holistic measures of writing quality, he included three quantitative measures which shed light on Spanish-language influences in the writing of the Spanish L1 students: length of essay, T-unit length, and errors per T-unit. For all three measures, there were no significant differences between the

Anglo-American children and the Spanish L1 bilingual children. He did note, however, that the bilingual children wrote longer essays and had longer T-units. He attributed this small difference to the benefit of learning literacy in the L1 before writing in the L2. While this view is plausible, it is equally possible that these students, influenced more strongly by their Spanish L1 writing preferences, simply transferred these preferences.

We are aware of no other studies that have compared English L1 and Spanish L1 children in their writing in terms of quantitative linguistic measures. In the research study presented here, we examine further elementary student writing and the potential of L1 influences on L2 writing. This study also extends the range of student populations being examined while continuing the trend of reliable quantitative analyses which reflect potential discourse functions. The study compares 545 essays written by English L1 and Spanish L1 elementary students ages 10-11 (U.S. fifth-grade students). These students are part of a larger corpus collection project and represent a sample of Spanish L1 writers who are expected to develop their English writing abilities in the U.S. school context. As such, this population represents both a good further test of potential generalizations about Spanish L1 transfer effects and also provides insights into L2 literacy development among non-adult students.

In particular, the research questions which we focus on include the following:

1. Do the linguistic features found in the essays of English L1 students differ from those found in the English essays of Spanish L1 students?
2. Are the lexico-syntactic differences found in previous studies of Spanish L1 and English L1 adult writing consistent with those found in the writing of elementary students?

2. Method

In order to address these questions, a set of in-class student writing collected during the 1988/89 and 1989/90 school years were analyzed using quantitative techniques. During this two year period, three classes of fifth-grade students wrote essays in response to monthly writing prompts. Each month, students in participating classes were presented with a topic. The topics covered a range of different writing types (e.g., telling a story, taking a position, describing something, etc.). Each class wrote on the same set of topics to allow for cross-class comparisons of different writing topics.

2.1. *Subjects and setting*

The classes used in this study represent two different L1 groups: One is predominantly composed of English L1 students and the other one is composed of Spanish L1 students. In all, there are 545 student essays: English L1 = 311, Spanish L1 = 234. The English L1 students come from a school that is located in a small city in northern Arizona. This class wrote essays for this study during the

1988/89 and 1989/90 school years. The Spanish L1 students come from a public school in a small town in the southwest corner of Arizona. This class wrote essays during the 1989/90 school year.

2.2. *Writing tasks*

Students wrote once a month on nine different prompts. Three prompts were designed to elicit narrative writing, three to elicit descriptive writing, and three to elicit expository writing. The instruction sheets for these assignments each included brief pre-writing activities that were done by the students. From observations of the classes and discussions with teachers, we are confident that the assignments were carried out in a similar fashion across the classes and throughout the school year. The two teachers in this study stressed daily writing in their classes, and each used our assignments as opportunities for students to write to a different audience without evaluation.

Only first drafts were collected since revising would have added a confounding variable in the writing that would be difficult to control. The writing tasks took between 15-40 minutes and were done at one sitting. When students completed the writing assignment, they placed the essays in a pre-addressed, stamped envelope which was placed in the front of the room by the teacher. The teacher then sent the envelope directly to us. Students also knew that they were writing for us and that their essays would not be returned. Feedback from teachers and students indicated that they enjoyed the writing tasks and enjoyed writing for us. In some cases, teachers used the monthly writing prompt as a springboard activity for other related writing. This reinforced our feeling that teachers and students in general enjoyed the topics that we had selected.

2.3. *Linguistic analysis of the texts*

Each text in the sample was analyzed for the following linguistic measures:

1. Total number of words
2. Total number of T-units
3. Number of words per T-unit
4. First and second person pronouns
5. Third person pronouns
6. IT
7. Modals
8. AND clausal conjunctions
9. Non-AND clausal conjunctions
10. Adverbial subordinate clauses
    - Causal clauses
    - Conditional clauses
    - Other

11. THAT complement clauses
    (THAT present and THAT deleted)
12. Infinitive clauses
13. Relative clauses
14. Passives
15. Word omissions
16. Noun morphology errors
17. Verb morphology errors
18. Subject verb agreement errors

These measures represent a range of lexico-syntactic features which have been consistently used in discourse analysis and writing research. Measures 1-3 represent overall text features associated with genre variation and often assumed to reflect writing development; that is, higher counts on these features are assumed to reflect better writing (Carlisle 1988, Hillocks 1986, Hunt 1983). Measures 4-6 represent means for informational contraction. They also reflect interpersonal involvement for first and second person pronouns, and a narrative emphasis for third person pronouns (Biber 1988). Measure 7 is a measure of interpersonal relations. In writing, it is typically used to represent the degree of certainty or possibility of some information on the part of the speaker/writer. Measures 8-14 represent the extent to which information is presented in complex clause combinations, or the extent to which information is compressed or backgrounded. Many of these subordination measures are assumed to reflect better writing ability as well (Loban 1976, Hillocks 1986). However, Biber (1992) has shown that various types of subordination serve different discourse purposes and a single "subordination" measure is inappropriate. Measures 15-18 represent patterns of student writing errors. They are included to verify the L2 nature of English writing for the Spanish students.

All relevant counts were normalized to 100 words per text. Normalization allows features in texts of different lengths to be compared accurately. For example, if Text 1 with a total length of 75 words has 2 modals, and Text 2 with a total length of 120 words also has 2 modals, on the surface it appears that these texts have the same frequency of modals. However, because Text 2 is longer, there are more opportunities for modals to occur. Therefore, the raw counts are not comparable. When the two texts are normalized to 100 words per text, then it is evident that Text 1 has almost twice as many modals as Text 2. The computation is as follows:

Text 1:

$$\frac{2 \text{ modals}}{75 \text{ words}} \times 100 = 2.75 \text{ modals}$$

Text 2:

$$\frac{2 \text{ modals}}{120 \text{ words}} \times 100 = 1.67 \text{ modals}$$

In all, there are 18 measures of linguistic variation and two holistic measures. The linguistic features listed above were hand-counted by the authors and any discrepancies were resolved by going back to the student text and recounting.

2.4. *Holistic assessment of writing coherence and essay introductions*

Each essay was read and rated by the authors using simple primary trait measures of writing coherence and essay introductions. Essays were assigned a one or a zero for coherence on the basis of the following criteria:

1. Did the student write on the assigned task?
2. Did the student stay on topic?
3. Did the sequence of clauses follow a logical progression?

Essays were also assigned a one or a zero for presence of an introduction. This decision was based on the presence of an initial clause which directly reflected the topic of the assignment.

For coherence, inter-rater reliability between the two raters was measured by Cronbach's Alpha at .70. All discrepancies were re-read and the raters negotiated and agreed upon a final rating for this analysis. For introductions, inter-rater reliability between the two raters was measured by Cronbach's Alpha at .99. Again, discrepancies were reviewed and a final rating was agreed upon.

2.5. *Analysis of data*

ANOVAs were performed on all linguistic measures of the essays by student L1 backgrounds. Statistically significant differences between groups were examined through the use of post-hoc Scheffe tests. A chi square analysis was used to examine between group differences for the overall measures of coherence and introductions.

3. Results

Means and standard deviations are shown in Table 1. ANOVA and Scheffe results are shown in Table 2.

Table 1
MEANS FOR LINGUISTIC FEATURES BY L1

Linguistic Feature	Language			
	English n = 311		Spanish n = 234	
	M	s.d.	M	s.d.
Words per text	110.0	50.23	135.4	60.10
Number of T-units	11.5	5.81	12.9	6.47
Words per T-unit	10.3	3.04	11.6	5.44
First and second pronouns	9.31	5.04	9.75	4.98
Third person pronouns	2.76	3.52	2.84	3.28
IT	2.42	2.35	1.64	1.98
Modals	3.08	3.20	2.53	2.89
AND coordination	1.85	1.96	2.79	2.39
Non-AND coordination	1.55	1.46	1.55	1.64
Causal adverbials	1.19	1.42	1.48	1.47
Conditional clauses	0.68	1.20	0.76	1.27
Other adverbial clauses	0.96	1.14	0.93	1.12
THAT clauses (present)	0.20	0.49	0.23	0.55
THAT clauses (deleted)	0.52	0.86	0.33	0.64
Infinitive clauses	1.50	1.98	1.98	2.28
Relative clauses	0.79	1.00	0.75	0.93
Passives	0.29	0.82	0.22	0.77
Word omissions	1.12	1.65	1.68	1.87
Noun morphology errors	0.41	0.87	0.77	1.29
Verb morphology errors	0.47	0.95	1.29	1.96
Sub-verb agreement errors	0.13	0.45	0.28	0.61

Table 2
ANOVA AND SCHEFFE RESULTS FOR LINGUISTIC MEASURES
(n = 545 d.f., 1, 543)

Linguistic Feature	F Value	F Probability	Scheffe Results
Words per text	28.80	.0001 **	S > E
Number of T-units	7.52	.0063 **	S > E
Words per T-unit	12.54	.0004 **	S > E
1st and 2nd pronouns	1.05	.3049	
3rd pronouns	0.07	.7886	
IT pronouns	16.78	.0001	E > S
Modals	4.16	.0419 *	E > S
AND coordination	25.72	.0001 **	S > E
Non-AND coordination	0.00	.9739	
Causal adverbials	5.26	.0222 *	S > E
Conditional adverbials	0.57	.4517	
Other adverbials	0.09	.7633	
THAT clauses (present)	2.49	.1154	
THAT clauses (deleted)	7.88	.0052 **	E > S
Infinitive clauses	7.05	.0082 **	S > E
Relative clauses	0.25	.6182	
Passives	1.11	.2934	
Word omissions	13.72	.0002 **	S > E
Noun morphology errors	15.60	.0001 **	S > E
Verb morphology errors	40.28	.0001 **	S > E
Sub-verb agreement errors	10.44	.0013 **	S > E

* $p < .05$; ** $p < .01$
E = English; S = Spanish.

In terms of the total number of words and T-units, the ANOVA results indicate that Spanish L1 students wrote more than English L1 students. A similar pattern is noted for the number of words per T-unit, with the Spanish L1 students writing significantly longer T-units than the English L1 students. In addition, the Spanish L1 students used significantly more AND connectors and clausal adverbials than the English L1 students. English L1 students used significantly more deleted THAT clauses than the Spanish L1 students. This result may reflect an L1 influence for the Spanish students because deleted THAT clauses are less common in Spanish. English L1 students also used significantly more modals and IT pronouns than the Spanish L1 students. The area that showed the greatest

difference between the two groups was the error counts. Spanish L1 students had significantly more errors in all areas measured than the English L1 students, confirming their ESL status.

Chi square results of the holistic measures indicate a significant difference; 76% of the English L1 students wrote coherent essays while only 54% of the Spanish L1 student essays were rated as coherent. Essay introductions were not significantly different across groups. However, it is interesting to note that Spanish L1 students used explicit introductions slightly more often than the English students. Seventy-eight percent of the Spanish student essays had an explicit introduction, while only 75% of the English L1 student essays had introductions.

4. Discussion

Results of this study appear to confirm a number of earlier assertions in the literature on Spanish L1 transfer effects in the writing of English. Foremost among these is the remarkably similar results with respect to a more elaborate style of writing. Using a very different population of Spanish L1 writers, the results match quite strongly with earlier quantitative studies. The elementary students wrote longer sentences, used more coordinating structures and used more subordination overall (cf. Carlisle 1989). Since most of the students in this study have been in U.S. elementary school for a number of years, this style of writing cannot be attributed to a strong and consistent Mexican education-system training. One tempting explanation for the results of this study is to suggest that this elaborate style is simply a reflection of less developed writing; this assertion is commonly made for essays which make greater use of coordination. However, such an explanation does not account for the same patterns of results in the well educated adolescent and university students reviewed in earlier studies. The only feature that is consistent across all populations and all situations is the Spanish L1 background of the writers.

The results, therefore, also provide a strong confirmation of research in contrastive rhetoric; it is possible to establish strong patterns of linguistic variation across languages which can be replicated consistently with different groups of writers and in different educational contexts. As a corollary, this study demonstrates, as well, the value of converging evidence using both Spanish L1 vs. English L1 and English L2 vs. English L1 comparisons. Contrastive rhetoric has often been criticized for using the L2 English writing of ESL students and paying insufficient attention to comparisons across languages. This study demonstrates that careful examination of ESL student writing has the potential to reveal the same information as cross-language comparisons.

At the same time, it needs to be noted that this study was able to build on a number of previous sets of research findings. It is likely that the most persuasive evidence for contrastive rhetoric, and for the use of ESL student writing, is through the gradual convergence of evidence from several sources. Cross-language comparative evidence is critical for such a process of convergence. In

the case of Spanish L1 influences on English writing, the combined evidence demonstrates the value of both methodologies.

It should be pointed out, also, that there were a number of differences between the results of this study and findings from earlier research. One difference that is apparent is the longer essays written by the Spanish L1 students. This may well be a product of our elementary student populations. Unlike adult academic students in the U.S., who are trained to believe that longer essays are better essays, the elementary students do not yet have this orientation; this may account for the shorter essays written by the English L1 students. Since there are so many potentially confounding variables which may contribute to longer essay writing (cf. Carlisle 1989), we do not wish to speculate in great detail on this distinction. Another difference included the greater use of subordination measures in this study than in certain other studies; this difference, however, can be seen as a stronger manifestation of a general trend toward elaboration which is found consistently. Another difference with certain earlier research is the reinterpretation of a "loose" writing style as a more "elaborate" style. The latter term more appropriately accounts for the greater occurrence of various subordination measures in the writing of Spanish L1 students. Other minor discrepancies included different results in pronoun use (cf. Montaño-Harmon 1991) and in passives (cf. Reid 1988). In most other respects, the results provide confirming evidence with previous research.

5. Conclusion

Needless to say, further research with different populations of students and in different writing contexts are needed to examine further the trend which has emerged in this study. The results of this study, when combined with previous research, argue strongly for an elaborated style of writing common among Spanish L1 students. Whether or not this pattern would also emerge in a careful study of edited Spanish language texts of various types is a needed extension. For example, to what extent can this pattern be found in comparisons of equivalent Spanish and English editorial texts in major newspapers, of humanities textbooks of various kinds written in English and Spanish, or of professional and personal letters of various types (cf. Biber 1988)?

This study, as with any study, has its limitations. We did not examine the essays written in terms of any discourse approach beyond the lexico-syntactic level. It may well be the case that additional interesting findings might have emerged if we had done so (cf. Hoey 1991, Mann and Thompson 1992). We also were unable to obtain extensive background data on all of the students in terms of student files, and it would not have been possible to do so. We did, however, obtain a considerable amount of background information on the students from the teacher during interviews. Finally, the English L1 students in this study were seen as "at-risk" low-achieving students, much like the labels given to the Spanish L1 students in our sample. We chose the low-achieving English L1 group because it was a fairer assessment of the potential influences of the L1. However, it would

have been useful to have added a higher performing English L1 class as yet another basis for comparison. This will be a goal for future studies.

In spite of the limitations above, this study has affirmed both the general research approach assumed in contrastive rhetoric studies and also a research methodology which interprets discourse function in terms of various linguistic features in combination. First, the specific methodology used in this study has confirmed a consistent pattern of findings. If language is truly functional and communicative in nature, as we believe it is, one would expect complex but interpretable patterns of form-functions relations. This research, in combination with the previous research on Spanish L1 influences on English writing, demonstrates a strongly interpretable pattern. In this respect, the confirmatory results validate the research approach used. Whether additional consistent patterns remain to be discovered is a question that can only be explored through further research.

Second, this research points out the importance of contrastive rhetoric more generally. If Spanish L1 students do indeed have a preference for more elaborated writing, whether language-based or culturally driven, there are real consequences. One is that students will need to be aware that this style of writing can be perceived as flowery, indirect, or incoherent, even though the perception may be wrong. So the notion of an elaborated style may affect English language instruction. For language assessment in English L1 contexts, an elaborated style may lead to inappropriate evaluations of Spanish L1 student writing. The elaborated style may either lead evaluators to overestimate a student's abilities because of longer sentences and more subordination,or underestimate a student's abilities because of a different preference for informational structuring.

In brief, then, this study confirms the usefulness of a methodology that examines text variation and discourse function through the analysis of lexico-syntactic features. It also supports the general notion of contrastive rhetoric as a viable explanation for the phenomenon described here –an elaborated style of writing in Spanish– and its influence on students' writing in English.

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