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THE TELLTALE TARGETS: AN ANALYSIS OF ACCESS ERRORS IN THE SPEECH OF INTERMEDIATE STUDENTS OF SPANISH[1]

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This cross-sectional study of the oral interlanguage of forty students at the end of their fourth semester of university level Spanish, measures the accuracy with which correct forms were produced vis-a-vis the following grammatical categories: aspect, number, person, mood, tense and gender. The results of the study show that gender was the most problematic of the aforementioned categories. In addition, within each category, a positive correlation was found between the frequency of the required use of the unmarked form and the accuracy with which it was realized. Finally, plausible explanations for these phenomena are offered.

1.0. INTRODUCTION

To date, few empirical investigations have been completed with respect to adult grammatical interlanguage development where Spanish is the target language (Andersen 1984, 1986, Guntermann 1978, Lafford and Collentine 1987, Lee 1987, Terrell, Baycroft and Perrone 1987, Van Naerssen 1980, 1982, 1986, VanPatten 1981, 1985, 1987a, 1987b). Most of the data in these studies come from observations made at the first year level or from one English speaking student (Anthony) who had acquired Spanish informally. Only Lafford and Collentine's study deals with L2 data in a university setting beyond the first year. In addition, the majority of the studies are phenomenon specific (i.e. analyzing performance with respect to a single grammatical item), making it impossible both to corroborate and to compare research in global terms. The consequence of this lack of empirical inquiry is that it has been difficult for second language scholars to develop a theory of overall interlanguage transitional development.

This study of second year data, which was motivated by previous work done by the same authors using third year data (Lafford and Collentine 1987) ,proposes to add to

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the overall corpus of data on adult Spanish interlanguage so that the aforementioned goal of developing a data-based theory of L2 acquisition can be furthered.

Specifically, this study looks at the interlanguage of second year students of Spanish and tabulates the accuracy with which grammatical forms are produced to give us an idea of how far along the average SPA 202 (fourth semester university level Spanish) student is in his/her acquisition of various grammatical morphemes.

The two major research questions may be stated as follows:

1. With what accuracy do students at the end of four semesters of college Spanish correctly provide the form required in a given linguistic context vis-a-vis the following grammatical categories: aspect, number, person, mood, tense, gender?
2. Within each aforementioned grammatical category, which of the internal options is produced with greater accuracy? For example, within the category *number*, are singular or plural forms more accurately produced when required in a given context?

After these questions are answered, explanations for the results of the data analysis will be sought in notions of markedness, frequency of certain forms in the input and expected output, and possible avoidance strategies on the part of the students as they interact with their instructor during the data gathering process.

2.0. Methodology

2.1. *Subjects*

In the Spring of 1987 Collentine taped conversations in Spanish with students from both of his SPA 202 sections at Arizona State University. Of the taped conversations, Collentine chose twenty from each section at random (i.e., n=40). All of the students in this cross-sectional study were native speakers of English. Four of the students grew up in a family where they were exposed to Spanish in the home. Only one of the students had spent time abroad (one year) in a structured program where Spanish was the target language.

2.2. *Methodology and procedure*

The *task mode* for the study consisted of oral data elicited in taped interviews with the students' instructor which lasted between 10-12 minutes during the last (16th) week of instruction. The oral interviews served as partial completion of the course syllabus. The *task focus* was on the semi-structured conversations of the students. The themes which provided the context for the conversations came from topics that were covered during the course of the semester. The interviewer made every effort to elicit responses which would force the students to manipulate structures that involved the grammatical categories of person, number, tense, gender, mood, aspect, voice and a variety of vocabulary. A number of techniques were incorporated: leading the student to comment on third persons as well as on themselves, raising topics that dealt with the present, future and past, eliciting conjectural responses, etc.

The data was then transcribed and coded by the authors using a program written by Collentine in ICON that allows codification of various elements (grammatical errors

[E], correct use [C] and targets [T]) in the transcribed text and tabulation of the percentages of accuracy (correct/target) in the oral performance of the second year students.[2]

3.0. Analysis of the data

3.1. *Grammatical performance by category*

Table 1 presents the data for the accuracy percentage (AP) for grammatical performance by category by SPA 202 students.[3]

Table 1
GRAMMATICAL PERFORMANCE
BY CATEGORY

	C	T	AP
Aspect	1 334	1 382	96.5
Number	5 136	5 486	93.6
Person	1 846	1 976	93.4
Mood	1 282	1 382	92.8
Tense	1 274	1 382	92.2
Gender	1 279	1 598	80.0
Totals	12 151	13 206	92.0

The data show a remarkably high rate of grammatical accuracy ranging from 80% for gender to 96.5% for aspect. Gender was overwhelmingly the most problematic of all the grammatical categories, but it still manifested an overall accuracy of 80%. There is no real difference in accuracy percentage between the other five grammatical categories which range from 96.9% to 92.2%. At first the authors were surprised to find such a high rate of performance accuracy by the students for all grammatical categories considering the plaintiff cry of most college professors that their students cannot speak well and that their grammar is far from perfect.

Several factors may have led to this seemingly high degree of overall grammatical accuracy. In the first place, the data from these students were gathered from a one-on-one oral interview with their instructor and served as the oral part of the final exam for the course. Under such formal circumstances one would expect a high degree of monitoring to take place where the students would try to carefully edit their output. The high percentage of overall accuracy here for any given category (except gender) seems to imply that the second year student is able to monitor production with a high degree of accuracy perhaps due to the grammar-based approach that these students experienced during their first two years of university language study.

[2]The categorization and scoring of these errors is explained in detail in Collentine (1988).

[3]Although voice is also a grammatical category, it is not considered here for two reasons: 1) there were only two errors where the passive voice was used, and 2) the passive voice in Spanish (as well as English) is an optional transformation.

In addition, the interviews only lasted 10-12 minutes each so that the students never really got a chance to relax and let their guard (monitor) down so that only the acquired portion of their interlanguage system would be in use.[4]

Another factor which may account for the seemingly high rate of grammatical accuracy is the fact that the interviews were semi-structured, i.e., the students were asked open-ended questions based on topics discussed in class. Although the interviewers tried to create contexts in which more problematic grammatical forms were required (subjunctive, gender and number agreement, etc.) the student was still free to answer the best way s/he could. In the process, these students were probably able to avoid more difficult structures by substituting easier ways of conveying the same message.

This possibility underscores the last point with reference to the explanation of the high accuracy percentages: the relatively high frequency with which the students used non-problematic forms. For instance, if the student is able to be selective about which properties of a grammatical item s/he will commit to producing, s/he might produce the phrase *no quieren dejarme ir* instead of *no quieren dejar que yo vaya*. Current L2 literature only defines avoidance with reference to construction similarity between the L1 and the L2. Schachter (1974) and Kleinman (1983) both concluded that when there is 1) a formal similarity and 2) functional dissimilarity between paralleling grammatical constructions of an L1 and an L2, a learner will tend to avoid the structure completely.

This avoidance strategy may account, in part, for the data when one investigates the figures in Table 1 with greater scrutiny. The figures in Table 1 give accuracy percentages for the grammatical category as a whole, e.g., students targeted forms containing mood 1382 times and came up with the correct modal forms 1282 of those times (92.8 AP). However, almost all (1268/1382= 92%) of the targeted cases dealt with the unmarked member of that category for the student (the indicative mood - see Table 5).

The notion of relative markedness among elements in language providing an explanation for the order of acquisition of certain grammatical morphemes has been posited by Rutherford (1982).[5] Therefore, as it will become apparent below, one may be able to expand Schachter and Kleinman's concepts of avoidance to incorporate notions of markedness such that relatively easier (i.e., unmarked) grammatical markings are committed to (targeted) more frequently by the students and more marked elements are avoided with great frequency by the second language learner.[6]

[4]Future studies of the acquisition of Spanish in classroom settings should attempt to capture various "styles" of the students speech and perhaps try to interview them in groups in informal settings where they try to communicate with each other socially in the target language.

[5]The idea that there exists a natural order of acquisition of these L2 morphemes has also been posited by Krashen (1982).

[6]According to Waugh (1976a), the principle of markedness states that linguistic signs are defined paradigmatically through opposing hierarchical relations of markedness where one term is invariantly marked for a given semantic feature while the other remains non-committal with respect to this piece of information. In other words, the unmarked term does not necessarily specify X; it remains neutral and uncommitted to the presence of X. On the other hand, the marked term is more constraining, specifying and delimiting; it conveys the signalization (invariant presence) of X. For example, the present tense is unmarked vis-a-vis other tenses since it can refer to the future and past as well as the present and make statements about eternal truths (*Voy mañana./ Napoleón entra en España en 1808./ Leo en este momento/ Leo todos los días*). However, the past tense is more restricted and can only refer to past time (*Fui al mercado ayer*).

According to Rutherford (1982) no systematic efforts to apply markedness concepts to L2 developmental studies (taking into account the markedness relations among elements within the target language itself) have yet been attempted; most studies have applied the notion of markedness to L1-L2 transfer only (Eckman's [1985] Markedness Differential Hypothesis). This study will only tentatively broach the subject of markedness in the acquisition of Spanish since a larger corpus, including first and third year data from speakers of different L1 backgrounds, would be necessary in order to draw any definitive conclusions.

After the data are analyzed, several hypotheses will be proposed to account for the high frequency of unmarked forms in the students' interlanguage data which might lead observers to misleading conclusions about the students' overall grammatical ability (Table 1) unless the data are scrutinized carefully to account for frequency of occurrence of each of the members of the oppositions that make up these categories.

To conclude, it seems that a closer look at the second year data is required in order to explain the high percentage of accuracy for these grammatical categories. In other words, is this accuracy truly the work of a highly developed acquired system and monitor in second year students, or is it simply an artifact of the input and output data which targets easier unmarked forms with greater frequency? If the latter is found to be true, it would have implications for the amount and type of input and output that should be recommended for a class of intermediate level students who still have a long way to go to develop their acquired system and perfect their monitor.

3.2. *Aspect*

The most prevalent and important aspectual distinction made in the Spanish verbal system (as well as in the majority of the world's languages) is based on the dichotomy of perfective/imperfective. Therefore, this study bases its analysis of student performance with respect to aspect on this same distinction in the past tense of Spanish.

The dichotomy of preterit/imperfect has always been problematic for the English speaking student. Therefore, it is important to see which one the second year learner uses more accurately. Table 2 shows the AP's for the preterit and the imperfect.

Table 2
AP's FOR THE PRETERIT
VERSUS THE IMPERFECT

	C	T	AP
Preterit	111	134	82.8
Imperfect	55	90	61.1
Totals	166	224	74.1

The data show that the imperfect is more problematic than the preterit. While the preterit was performed with a fair amount of accuracy (82.8%), the imperfect was only correctly targeted 61.1% of the time. Therefore, it seems that when the students were forced to confront aspect (i.e., in choosing between which past tense to utilize) they

utilized the perfective (the more marked preterit) more correctly and more often than the unmarked imperfective.[7]

An explanation of this apparent reversal in the theory of the acquisition of unmarked before marked forms may be found in the concept of "perceptual saliency" (Larsen-Freeman, 1976). In the case of aspect, it may be easier for the learner to perceive the preterit forms, especially since many of them contain a final accented vowel (*hablé, comió*) which catches the listeners' attention since most verb forms in Spanish have penultimate stress.

In addition, it may be easier for the learner to grasp the idea of delineated (punctual) actions before non-delineated ones. For instance, Kaplan (1987) has noted a higher accuracy percentage in the use of the French *passé composé* (the perfective past tense form in opposition to an imperfect) among learners. She thus proposes "The higher frequency of distribution errors for the imperfect with respect to the *passé composé* may have to do with the possibility that the aspectual notion of the imperfect is more subtle, less easily perceived than that of the *passé composé*. For the learner, the quality of 'pastness' is not as evident for ongoing and habitual conditions as it is for discrete events or actions" (56-57).

Van Naerssen (1982) posited another explanation for the early acquisition of preterit forms, "the high frequency of use of the preterit compared with the imperfect (Gili Gaya 1972) in natural language" (151). If the learner is exposed to a higher number of preterit forms in the input, it stands to reason that s/he would produce these forms with greater accuracy than imperfect forms, which are more rarely found in normal Spanish discourse.

Finally, the Markedness Differential Hypothesis (Eckman 1985) of L1 transfer may be at work here. According to this hypothesis, if the L2 possesses a more marked structure than the L1 for conveying similar concepts, the L1 speaker will tend to have difficulty producing the L2 form or avoid it altogether. Since English does possess a *synthetic* past tense form similar to the Spanish preterit (*yo bailé*= I danced), the transfer seems to occur easily. However, English has no singular *synthetic* imperfect aspect form; the notions covered by the synthetic (marked) Spanish imperfect (*yo bailaba*) are usually realized in English with more unmarked analytic progressive forms, e.g., "I was dancing", "I used to dance."

Therefore the MDH may account for the ease with which native speakers of English seem to acquire the preterit before the imperfect, but it would be interesting to study the acquisition of Spanish by speakers of other Romance languages as well as speakers of non Indo-European languages to see which aspect is acquired first by most learners. This type of data would help to shed more light on the notions of Universal Grammar,

[7]VanPatten (personal communication) has suggested that this markedness relation may, indeed, be reversed so that the marked form would be the durative imperfect and the punctual preterit would be unmarked. Comrie (1976) has proposed that the markedness relationship between these two concepts may be language specific. However, according to the criteria set up by Jakobson as reported in Waugh (1976b), it seems fairly clear that the preterit in Spanish consistently gives more specific information about the limited shape of the action than the imperfect, which remains non-committal to this information. Therefore, we consider the preterit aspect to be the marked member of the opposition in Spanish.

parameter setting, 'core' and 'periphery' (very similar to ideas of markedness) as well as the MDH.

The present study's figures of 82.8% and 61.1% accuracy for the preterit and the imperfect, respectively, almost parallel those cited in Andersen (1986). In his study the preterit was found to have an overall accuracy of 94% and 68% in the imperfect in the speech of Anthony, an English speaking adolescent who had acquired Spanish informally in Puerto Rico for four years. It is interesting to note, however, that the same speaker after only two years in Puerto Rico had an AP of only 50% for preterit and 0% for the imperfect. Thus, the real development of the preterit/imperfect distinction seems to be a relatively late phenomenon.

VanPatten (1981) found higher accuracy scores for the preterit than for the imperfect among beginning second language learners of Spanish.[8] However, Van Naerssen (1982) stated that beginning L2 learners of Spanish show greater accuracy with the imperfect than with the preterit although no percentages of accuracy were presented in her study. It is clear, then, that more data from first and second year students is needed to understand the order of acquisition of these two elements of aspectual distinction.

3.3. *Number*

Table 3a breaks down the number of AP's by part of speech category. The data show that inflecting for plural (marked) morphemes was more problematic than correctly using singular (unmarked) forms. Those entities which were targeted for singularity showed an overall rate of 95.1% accuracy while plural entities were inflected with 88.6% accuracy. This may provide further evidence that relative markedness plays a role in L2 acquisition since the unmarked singular forms are acquired more easily than their

Table 3a
NUMBER AP's BY PART OF SPEECH CATEGORY

	Singular			Plural			Overall		
	C	T	AP	C	T	AP	C	T	AP
Nouns	1241	1262	98.3	538	547	98.4	1779	1809	98.3
Pron.	528	546	96.7	44	48	91.7	572	594	96.3
Verbs	1113	1153	96.5	175	229	76.4	1288	1382	93.2
Adj.	425	449	94.7	95	132	72.0	520	581	89.5
Det.	748	856	87.4	229	264	86.7	977	1120	87.2
Totals	4055	4266	95.1	1081	1220	88.6	5136	5486	93.6

[8]VanPatten (personal communication) has also noted that presenting overall accuracy scores for the use of the preterit and imperfect obscures important information, such as the fact that students seem to acquire this distinction in stages: preterit with punctual verbs, imperfect with statives (non-punctual), preterit with statives and, finally, imperfect with punctuals. Future studies by Lafford and Collentine will take into consideration stages of acquisition for these and other morphemes.

plural inflected counterparts. In addition, the singular unmarked forms were targeted three and a half times more often than the plural forms (sg. = 4266, pl. = 1220 = 3.50:1), thus supporting the hypothesis that learners tend to use less marked forms more often in their speech.

Table 3a shows that the part of speech categories which presume substantive modification relations (i.e., adjectives and determiners) were more problematic than the actual substantive entities themselves. Overall number agreement in substantive entities (i.e., nouns and pronouns) was inflected with the greatest amount of accuracy (98.3 and 96.3, respectively).

The participants had very little problem in marking for number in nouns, showing an overall accuracy rate of 98.3%. There was no significant difference in marking for singularity and plurality, showing AP's of 98.3% and 98.4%, respectively, although the singular nouns were targeted almost two and a half times as frequently as the plural nouns (1262/547 = 2.31:1).

The pronouns showed 96.3% accuracy, e.g., *mis AMIGAS, ELLAS no quieren salir esta noche*, but inflecting for plurality was more difficult than producing singular forms. Singular pronouns evidenced an AP of 96.7% whereas plural pronouns only showed 91.7%. In addition, the singular pronouns were targeted over eleven times more often than plural pronouns (546/48 = 11.38:1).

The participants inflected for number in verbs with an overall 93.2% accuracy, e.g., *ELLOS toman su desayuno*. Once again, inflecting for plurality was more difficult than producing singular forms. Plural verbs showed an AP of only 76.4% whereas singular verbs showed an AP of 96.5%. Furthermore, the singular verb forms were targeted over five times as often as plural ones (1153/229 = 5.03:1).

Adjectives were the second most difficult part of speech category in terms of number with an overall AP of 89.5%. Table 3b shows that syntagmatic factors play an important role in determining accuracy of number inflections in adjectives. Adjectives can appear in only two positions with respect to their modified elements: contiguously or non-contiguously. A contiguous adjective does not have linguistic elements between itself and its modified element, e.g., *me dieron dos MANZANAS ROJAS*, in which case the plural modifier *rojas* is adjacent to its modified element *manzanas*; a non-contiguous adjective, however, is separated from its modified element by other linguistic signs, e.g., *las MANZANAS que me dieron eran ROJAS*, in which case the modifier *rojas* is non-adjacent to its modified element *manzanas*.

Table 3b presents the AP's of number in adjectives in terms of contiguity.

Table 3b
ANAPHORIC AGREEMENT IN ADJECTIVES BY NUMBER AND CONTIGUITY

	Contiguous			Non-Contiguous			Overall		
	C	T	AP	C	T	AP	C	T	AP
s.	227	231	98.3	198	218	80.8	425	449	94.7
p.	70	84	83.3	25	48	52.1	95	132	72.0
Totals	297	315	94.3	223	266	83.8	520	581	89.5

Table 3b shows that number was more difficult to inflect when there were other linguistic elements between the modified and the adjective. Non-contiguous adjectives inflected number with only 83.8% accuracy while contiguous adjectives were inflected for number with 94.3% accuracy. Overall, the single most problematic category here involved non-contiguous plural adjectives showing only 52.1% accuracy. Thus it seems that the second year student's acquired system and monitor have not yet been developed to the point where it can deal with the complexities of selection, number agreement and non-contiguous concatenation of related elements simultaneously.

Another explanation for the problematic nature of non-contiguous grammatical agreement may have to do with the relative markedness of the notions of attribution and predication (Waugh 1976b, 1977, Van Schooneveld 1978). According to Van Schooneveld (1978: 3), predication is marked for the following: "the superimposition of one segment of extra-linguistic reality upon another as presented by the speaker is supposed not yet to have been performed by the addressee" whereas attribution remains non-committal (unmarked) with respect to this. Thus, the contiguous attributive adjectives are unmarked vis-a-vis the non-contiguous ones.

A look at the frequency with which these elements were targeted and the relative number of singular vs. plural targets in each of these categories may also lend some insight into the frequent use of unmarked forms by students in this study.

In general, unmarked contiguous noun-adjective combinations are targeted only slightly more often than marked non-continguous ones (315/266 = 1.18:1). Within the contiguous category, however, the unmarked singular forms of adjectives are targeted two and three-quarter times as frequently as marked plural forms (231/84 = 2.75:1). On the other hand, in non-contiguous combinations, the unmarked singular adjective forms are committed to four and a half times as often as marked plural forms.

The data also support Jakobson's (1956) and Waugh's (1976b) contention that languages tend to avoid an accumulation of marks in a given form (marked plural forms in marked predication position) and if such forms exist they will be acquired later by the learner.

Finally, the most problematic part of speech category for number inflection involved the determiners, e.g., *MIS llaves están en la mesa*, which still showed a surprisingly high overall AP of 87.2%. There was no significant difference between marking for singularity or plurality with the former showing an AP of 87.4% and the latter 86.7%. Once again, however, the overwhelming preference for targeting singular forms instead of plural ones was evident; the singular determiners were targeted almost three and a quarter times more often than plural ones (856/264: 3.24:1).

A rather high percentage of accuracy in the category of number with adjectives was also found in Van Naerssen's 1986a study of first year students with an AP of 93.1%. Unfortunately, she did not give differential figures between accuracies of singularity and plurality so that the authors could compare this aspect with the present study.

The ease with which English speaking students mark number could be explained by the MDH which posits that if the L2 marks for a category also marked in the L1, the student will have little difficulty with the L2 category. The fact is that English also consistently marks number in the noun and pronouns and regularly uses forms similar to the Spanish /s/ to do so. Once again, research on the acquisition of Spanish by speakers of non Indo-European languages might shed light on the extent of L1-L2

transfer in the Spanish interlanguage of English speaking speakers when inflecting for number.

3.4. *Person*

Table 4 breaks down the AP's of person by part of speech category.

Table 4
PERSON AP's BY PART OF SPEECH CATEGORY

	First			Second			Third			Overall		
	C	T	AP	C	T	AP	C	T	AP	C	T	AP
Pron.	372	379	98.2	1	1	100	193	214	90.2	566	594	95.3
Verb	527	593	88.9	9	9	100	744	780	95.4	1280	1382	92.6
Totals	899	972	92.5	10	10	100	937	994	94.3	1846	1976	93.4

In all areas, fourth semester students demonstrated a high degree of accuracy in marking for person. No noteworthy difference was found between accuracy with the first and the third person, showing AP's of 92.5% and 94.3%, respectively. Although the difference is not significant, the participants marked person in pronous more accurately than in verbs with the former showing 95.3% accuracy and the latter 92.6%.

No clear conclusion can be drawn as to the relative accuracy with which the second person (AP = 100.0%) was inflected as it was only targeted ten times, all of which were in the second person singular. This was obviously a flaw in elicitation as the author did not force the participants to make direct references to him.

The second most problematic of the three was third person. Marking for third person in pronouns was more difficult than in verbs showing AP's of 90.2% and 95.4%, respectively.

In general, marking for the first person (the most marked person of the paradigm with the most specific referent) was more difficult than marking for the other two. However, 90.4% of the first person errors (E = 73) were incorrect verbal inflections. Inflecting for first person in verbs was done with the least amount of accuracy with an AP of 88.9%. Inflecting for first person in pronouns was done with great accuracy (98.2%) since the form *yo* (singular) does not inflect for gender and *nosotros* (plural) rarely inflects for femininity.

The MDH and pedagogical considerations may also help to explain some of this. First, native speakers of English are not used to inflecting for person in the first person verb forms (*tengo, hablamos*), which may account for their low AP (88.9%). In addition, even though third person pronouns are more unmarked (have a wider range of application) than first and second person forms, first person pronouns are probably accessed more frequently in classroom situations (answering questions put to them by teachers or other students) than third person forms (used when talking about other people) and are therefore more accurately produced (98.2% = first person pronoun to 90.2% = third person pronouns).

The only comparison of these data to other studies that can be made is that Andersen's participant, Anthony, used the third person in verbs more accurately than first person, which is for the most part in accordance with this study.

3.5. *Mood*

The AP's of mood are ranked in Table 5.

Table 5
MOOD AP's

	C	T	AP
Indicative	1268	1340	94.6
Subjunctive	14	42	33.3
Totals	1282	1382	92.8

The AP's show that when the indicative (unmarked) mood was targeted there was a high degree of accuracy in contrast to the subjunctive (marked) mood which was extremely difficult for the participants to realize correctly. The indicative was targeted with a high degree of accuracy with AP = 94.6%. The subjunctive, however, was targeted with only 33.3% accuracy. In addition, the indicative was required almost thirty two times as often as the subjunctive (1340/42 = 31.90:1). The imperfect subjunctive, e.g., querían que *me FUERA*, was manifested 4 times though it was never a target mandated by syntactic constraints.

Terrell, Baycroft and Perrone (1987) showed that in first year oral performance where there were 81 obligatory occasions for the subjunctive, only 10 (12.3%) were accurate inflections. It is interesting, however, that Terrell et al. demonstrated that the same students showed 92% accuracy with the subjunctive in written tests. The following is Terrell et al.'s general conclusion as to the status of the subjunctive mood after the first year:

> The data indicate that after a single year of college level study, most students have not acquired the rules for the use of the subjunctive paradigm sufficiently to be able to produce them correctly. Furthermore, students do not seem to be able to monitor their conversational output by using learned rules in order to increase accurate use of the subjunctive (p. 27).

General notions of developmental markedness and the Markedness Differential Hypothesis (Eckmann) of L1 transfer may play a part in the problematic use of the subjunctive by native speakers of English. Scholars generally agree that within a given language the subjunctive mood is more marked than the indicative and therefore it is not surprising that the latter seems to be acquired first by L2 learners. In addition, it has been posited that if the L2 possesses a more universally marked structure (e.g., subjunctive/indicative distinction) than the L1, speakers of L1 will have some difficulty with that structure when acquiring L2. According to the MDH, then, the fact that English

does not have such a regularly marked mood difference (S/I), makes such a distinction in the target language relatively more problematic for them than perhaps for speakers of an L1 with that same distinction. Once again, more insight into the role of markedness in L1 transfer may be gleaned from future studies with learners of different language backgrounds.

3.6. *Tense*

Table 6 breaks down the AP's of tense.

Table 6
ACCURACY PERCENTAGES
FOR TENSE

	C	T	AP
Present	1083	1119	96.8
Past	166	224	74.1
Future	23	35	65.7
Conditional	2	4	50.0
Totals	1274	1382	92.2

The data show that, overall, tense is targeted with a high degree of accuracy. Once again, however, the total figures do not tell the whole story. A breakdown of the tenses by category shows that the high accuracy in tense marking is due in large part to the students' lack of use of more difficult marked tenses; the unmarked present tense was targeted 5 times as much as the past tense (1119/224 = 5.00:1), 32 times as often as the future (1119/35 = 31.97:1) and 280 times more frequently than the conditional (1119/4 = 280:1).

It was quite evident in the interviews that the participants did not want to be forced to comment on topics using any other form than the present. One observed technique was that the students would answer or comment on the past using the historical present, e.g., *mañana estamos en México*. Another was to comment on the future using the periphrastic future (i.e., *ir a + infinitive*), an analytic form. The authors could not analyze the use of the present tense when participants were commenting on the past since it was evident in the discourse that they were effectively employing both functional and formal reduction strategies. One example of this in this study is that although the regular future was targeted only 35 times, the periphrastic future was used 14 times, each correctly. Thus, when the participants were targeting the future they would use the periphrastic future almost a third of the time.

Among the four Spanish tenses, those which denote anticipation from the time on which the speaker is focusing (either the present or the past) were the most difficult to inflect. These two tenses were the conditional, e.g., *no sé qué HARÍA en esa situación*, and the future, e.g., *ESTARÉ en California este verano*, showing AP's of 50.0% and 65.7%, respectively. The conditional and the future are parallel tenses to the past and the present, respectively. Anticipating from descriptions of the past was the most prob-

lematic given that the conditional, though only targeted 4 times, is nonetheless marked less accurately than the future.

Secondary to the difficulties of anticipation was describing the past. The marked past tense was much more problematic than the unmarked present as the former showed an AP of 74.1% and the latter 96.8%.

Therefore, it is of little surprise that the most difficult (and the least targeted) category was the most marked tense, that which both denotes [+past] and [+anticipated notion] (i.e., the conditional), and that the least difficult category (and the most targeted) neither manifests a past notion nor an anticipated action (i.e., the present) due to its unmarked nature.

It is interesting to note that Waugh's analysis of the French tense system (1976) found the present tense to be the least marked and the conditional to be the most marked of these four tenses. Once again, developmental markedness seems to be playing a role in the acquisition of Spanish as an L2.

The MDH may also play a role here since English possesses no marked synthetic future and conditional forms (like Spanish) and expresses these ideas in a less complex (unmarked) analytic fashion (*iré = I will go, iría = I would go*). Therefore, L1 speakers may tend to avoid producing these relatively marked structures absent in their own speech (the future was targeted only 35 times and the conditional 4 times in this study) or only produce it right 50-65% of the time (Table 6) when they do attempt to produce these forms.

Andersen's 1986 and Van Naerssen's 1986b studies both corroborate the acquisition of the present indicative before the preterit tense in adult learners of Spanish as an L2 but neither study provides data regarding the acquisition of the synthetic future and the conditional.

3.7. *Gender*

Table 7a breaks down the AP's of gender by part of speech category.

Table 7a
GENDER AP's BY PART OF SPEECH

	Masculine			Feminine			Overall		
	C	T	AP	C	T	AP	C	T	AP
Nouns	148	154	96.1	62	66	93.9	210	220	96.5
Pronouns	89	102	87.3	47	50	94.0	136	152	89.5
Det.	389	487	79.9	309	413	74.8	698	900	77.6
Adj.	125	161	77.6	110	165	66.7	235	326	72.1
Totals	751	904	83.1	528	694	76.1	1279	1598	80.0

The data show that the informants had more difficulty marking for femininity (the marked gender) than for masculinity (the unmarked gender). Those entities which were targeted for femininity only showed 76.1% accuracy while masculinity showed 83.1% accuracy. In keeping with the previously established patterns, the unmarked category (masculine) was targeted more frequently than the marked (feminine) (904/694 = 1.30:1).

Overall, gender marking in part of speech categories that assumed substantive modification relations (i.e., modifying adjectives and determiners) was more problematic than gender marking in substantive entities (i.e., pronouns and nouns: determiners and adjectives had AP's of 77.6% and 72.1%, respectively, whereas nouns and pronouns inflected for gender with 96.5% and 89.5% accuracy, respectively).

Participants were most proficient in inflecting for gender in nouns, showing 96.5% accuracy. However, those nouns marked for feminine gender, e.g., *las MUCHACHAS están por allá*, were more problematic than those marked for masculine gender, e.g., *el NIÑO juega bien*, showing AP's of 93.9% and 96.1%, respectively.

The pronouns were the most difficult of the substantive entities. However, inflecting for gender in pronouns was relatively unproblematic when compared to adjectives and determiners, showing 89.5% accuracy to their 72.1 and 77.6% AP's. The masculine pronouns, e.g., *ELLOS no tenían nada*, were surprisingly more problematic than the feminine pronouns, e.g., *LAS compré ayer*, showing AP's of 87.3% and 94.0%, respectively.

Marking gender in the determiners was less problematic than doing so in the adjectives showing 77.6% overall accuracy vs. 72.1% AP in the adjectives. This may be due in part to the normal position of these two elements vis-a-vis the modified. The determiner usually precedes the noun and therefore the speaker is forced to focus on the choice of gender in the determiner early in the phrase. Adjectives, however, almost always mark gender redundantly and therefore the speaker may not monitor them as heavily.[9]

In addition, determiners which targeted femininity (the marked gender), e.g., *no me gustan ESAS cosas*, were more difficult to mark than those which targeted masculinity (the unmarked gender), e.g., *quiero UN vaso de agua*, showing AP's of 74.8% and 79.9%, respectively.

Adjectives were the most difficult part of speech category to inflect for gender. Here marking for femininity was more problematic than masculinity. The participants only correctly inflected femininity in adjectives 66.7% of the time. Table 7b breaks down the gender AP's of adjectives by contiguity.

Table 7b
ANAPHORIC AGREEMENT IN ADJECTIVES BY GENDER AND CONTIGUITY

	Contiguous			Non-contiguous			Overall		
	C	T	AP	C	T	AP	C	T	AP
m.	71	80	87.5	54	81	66.7	125	161	77.6
f.	92	114	80.7	18	51	35.3	110	165	66.7
Totals	163	194	83.5	72	132	54.5	235	326	72.1

[9]The same sort of omission of redundant morphemes in a linear string was found for the deletion of /s/ in native speakers of Spanish from Cartagena, Colombia, where the first indication of plurality in the noun phrase was preserved more than the redundant plural markers (Lafford 1989).

As in the case with number, the grammatical category of gender was inflected with less accuracy when there was distance between the adjective and its modified element. Non-contiguous adjectives were inflected correctly only 54.5% of the time while contiguous adjectives were inflected with a much higher percentage of accuracy at 83.5%. In addition, the unmarked contiguous adjectives were targeted more often than marked non-contiguous ones (194/132 = 1.47:1).

It is interesting to note that non-contiguous feminine adjectives were inflected correctly only a little more than a third of the time, showing an AP of 35.5%. Conversely, contiguous masculine adjectives were inflected correctly 71 of the 80 times that they were targeted (87.5%). Thus, it seems that the triple task of 1) inflecting gender redundantly 2) for an adjective which marks for femininity (i.e., the marked gender) 3) syntactically spaced from its referent is extremely problematic for the learner. These data, along with the aforementioned data from contiguous and non-contiguous number agreement, also tend to support the theory of the "non-accumulation of marks" proposed by Jakobson as noted in Waugh (1976b): it is more difficult to remember to use the marked feminine gender in adjectives that are separated from their modifier in a marked predication situation than it is to use the unmarked masculine gender in an adjective regardless of its position vis-a-vis its modified.

The aforementioned MDH concerning L1 transfer may also account for the low AP for the grammatical category of gender for English speakers learning Spanish. Unlike Spanish, English does not consistently mark for gender in determiners, nouns or adjectives. Therefore, when learning Spanish as an L2, a native speaker of English seems to have a very difficult time marking for this grammatical category absent in his/her native tongue. Data from future studies of speakers of other gender-inflecting Romance languages and other non gender-inflecting languages who are acquiring Spanish as an L2 may give more insight into the Markedness Differential Hypothesis as it applies to English speakers learning Spanish.

Andersen (1984) found a hierarchy similar to those of the present study regarding his participant's gender marking accuracy on different parts of speech: the most accurate marking of gender is found in nouns, followed by pronouns, determiners and adjectives. Table 7c provides a comparison of the data from the two studies.

Table 7c
GENDER AP's BY PART OF SPEECH IN ANDERSEN (1984) AND THE PRESENT STUDY

	Andersen (1984)			Present study		
	C	T	AP	C	T	AP
Nouns	179	205	87.3%	210	220	96.5%
Pronouns	78	90	86.7%	136	152	89.5%
Det.	44	100	44.0%	698	900	77.6%
Adj.	3	13	23.1%	235	326	72.1%

The AP figures for gender inflection in nouns and pronouns show a greater parallel in the two studies (range: 86.7–96.5%) than those for correct gender marking

on determiners and adjectives (range: 23.1-77.6%). The lower AP in modificational elements may be due in part to the more difficult nature of gender agreement among determiners and adjectives modifying a substantive vis-a-vis gender marking on the noun or pronoun itself.

Van Naerssen's 1986a study of university learners of Spanish as an L2 also shows a relatively high accuracy for noun/adjective gender agreement among first year students of Spanish. The 73.6% AP for gender agreement in Van Naerssen's study parallels the 72.1% noun-adjective gender agreement in the present study of second year university learners. Although more data is needed to corroborate these figures, it seems as though adjective gender agreement does not vary greatly from first to second year in university settings. However, these 72-73% AP figures for university students show over three times as much successful monitoring of gender marking on adjectives than the data from the Andersen 1984 study even though Anthony had spent a total of two years in the target culture as opposed to the SPA 202 students who had spent that same time in a university classroom setting. The fact that Andersen's informant had only acquired Spanish in natural settings through interactions with peers while the SPA 202 students learned their Spanish in a controlled grammar-based classroom setting may indicate that there is some definite benefit to be derived from a structured learning environment.

Therefore, it appears that formal instruction may tend to enhance a learner's ability to monitor gender marking an agreement and help him/her avoid fossilization of incorrect forms. It seems, however, that an ideal language learning environment would combine the benefits of learning language in a communicative context with the presentation of rules for the student to use to perfect his/her monitoring ability.

4.0 Conclusions

The following observations may be made concerning grammatical accuracy in the oral performance of native speakers of English learning Spanish as an L2 after two years in a university classroom setting:

1. Overall, the grammatical categories showed a surprisingly high AP o 92.0%. Clearly, marking for gender (AP=80.0%) was much more problematic than any other category. The other five categories ranged from 92.2% to 96.5% accuracy. However, these figures are shown to be misleading when one looks at the behavior of the individual properties which compose each one of these grammatical categories.

2. Within each grammatical category, a positive correlation was found between the frequency of the required use of the unmarked form and the accuracy with which it was realized. This positive correlation between accuracy percentages (AP) and the number of times that the unmarked member of an opposition within the grammatical categories was targeted (T) could be attributed to several factors.

First, a plausible explanation for the high accuracy in their use of unmarked forms by students would be the relative frequency of unmarked forms in the *input* vis-a-vis marked forms, which are normally more restricted in use. For instance, if students are provided with a greater number of correctly modeled masculine forms than feminine ones, it stands to reason that their production of the former would be more accurate

than the latter due to their more frequent exposure to the unmarked form in normal Spanish discourse.

Moreover, the overall high percentage of unmarked forms in the student's speech may be due to the fact that, in general, Spanish discourse requires more use of the unmarked forms, and that in a 10 minute interview it is difficult to set up several situations which even require that the student use the marked forms. In other words, the interview itself may not have given the student sufficient opportunity to produce the more marked forms in natural discourse.

Finally, the students may consciously avoid the marked structures by manipulating the interview and consistently setting up situations where they could use the simpler unmarked forms instead of the marked ones. This explanation suggests that students know that they can better mark for such phenomena as the singular in both modified and modifying elements, the third person verb forms, the indicative mood, the present tense, masculine gender and gender and number on contiguous adjectives. In any event, the ability to avoid marked complex structures and resort to these relatively unmarked forms may be evidence of the extensive development of the learner's interlanguage system and the monitor itself.

3. The most problematic elements in each grammatical category were those which were relatively more marked developmentally (within the target language, e.g., plurality in both modified and modifying elements, the first person in the verb, the subjunctive mood, conditional and past tenses, feminine gender) or whose general L2 grammatical category was more marked universally than the L1 counterpart used to convey similar information (e.g., the formally synthetic markings for conditional and imperfect forms and the subjunctive and gender marking in Spanish which are absent in English).

The only student use of a morpheme that does not seem to fit this pattern is the more frequent and accurate use of the more marked preterit aspect over the unmarked imperfect aspect. More L2 data and more in-depth studies of the use of the preterit and imperfect forms in Spanish by native speakers will have to be carried out before any definitive explanations are given for this seemingly anomalous phenomenon.

4. The findings of the present study do not contradict to any significant degree the conclusions of other data-based studies of the acquisition of Spanish as a second language by adult learners.

Future studies of L2 acquisition data in Spanish by speakers of English, other Indo-European and non Indo-European languages who have acquired Spanish in naturalistic and classroom environments need to be carried out in formal and informal settings in order to amplify our data base of information. A more in-depth comparative study of the data of the present analysis with Lafford and Collentine's third year data will be completed within the year and more information on the development of the monitor as the student progresses in the development of his/her interlanguage will be gleaned.

In addition, these data may help to support or refute various theories of second language acquisition that have already been posited: the Markedness Differential Hypothesis (Eckman 1985), the importance of developmental markedness (Rutherford 1982), the Natural Order Hypothesis (Krashen 1982) and the Binding/Access Theory (Terrell 1986).

To conclude, the pedagogical implications of this research are limited, due to the broad focus of the study. More in-depth analyses of the stages of acquisition of each subcategory within the grammatical categories analyzed would have to be carried out before proposing any specific order of presentation of materials in a curriculum. However, we are in agreement with Lightbown (1985) who sees "the application of our current knowledge principally in terms of being able to tell teachers, testers and programme planners what to expect learners to do in certain situations." (109).

Thus, these data would lead us to propose that students tend to use more unmarked forms in their speech than marked ones (for whatever reason) and they tend to consistently produce the former more accurately than the latter. This may cause instructors to think carefully about the type of input and communicative opportunities the students are getting in the classroom so that more good models and practice are provided for the more problematic forms (imperfect aspect, plural, feminine, third person verbs, subjunctive and conditional).

REFERENCES

ANDERSEN, R.W. 1984. What's gender good for, anyway? In R.W. Andersen (ed.), *Second languages: A cross-linguistic perspective*. Rowley, MA: Newbury House.

ANDERSEN, R.W. 1986. El desarrollo de la morfología verbal en el español como segundo idioma. In J.M. Meisel (ed.), *Adquisición de lenguaje*. Frankfurt: Vervuert.

COLLENTINE, J.G. 1988. An interlanguage analysis of intermediate level Spanish students. M.A. thesis. Arizona State University.

COMRIE, B. 1976. *Aspect*. Cambridge: Cambridge University Press.

ECKMAN, F. 1985. Some theoretical and pedagogical implications of the markedness differential hypothesis. *SSLA* 7: 289-307.

GILI GAYA, S. 1972. *Estudios de lenguaje infantil*. Barcelona: Bibliograf, S.A.

GUNTERMANN, G. 1978. A study of the frequency and communicative effects of errors in Spanish. *Modern Language Journal* 62, 5-6: 249-253.

JAKOBSON, R. and M. HALLE. 1956. *Fundamentals of language*. The Hague: Mouton.

KAPLAN, M. 1987. Developmental patterns of past tense acquisition among foreign language learners of French. In B. VanPatten, T.R. Dvorak and J.F. Lee (eds.), *Foreign language learning: A research perspective*. Cambridge, MA: Newbury House.

KLEINMAN, H. 1983. Avoidance behavior in adult second language acquisition. In B.W. Robinall and J. Schachter (eds.), *Second language theory: Contrastive analysis, error analysis and related aspects*. Ann Arbor, MI: University of Michigan Press.

KRASHEN, S. 1982. *Principles and practice in second language acquisition*. New York: Pergamon Press.

LAFFORD, B.A. 1989. Is functionalism a fact?: Data from the Caribbean. *Hispanic Linguistics* 3.1-2: 49-74.

LAFFORD, B. and J.G. COLLENTINE. 1987. Lexical and grammatical access errors in the speech of intermediate/advanced level students of Spanish. *Lenguas Modernas* 14: 87-112.

LARSEN-FREEMAN, D. 1976. An explanation for the morpheme accuracy order of learners of English as a second language. *Language Learning* 26.1: 125-135.

LEE, J. 1987. Morphological factors influencing pronominal reference assignment by *le* of Spanish. In T.A. Morgan, J.F. Lee and B. VanPatten (eds.), *Language and language use: Studies in Spanish*. New York: University Press of America.

LIGHTBOWN, P.M. 1985. Can language acquisition be altered by instruction? In K. Hyltenslam and M. Pienemann (eds.), *Modelling and assessing second language acquisition*. Clevedon, U.K.: Multilingual Matters.

RUTHERFORD, W.E. 1982. Markedness in second language acquisition. *Language Learning* 32.1: 85-105.
SCHACHTER, J. 1974. An error in error analysis. *Language Learning* 24.2: 205-214.
TERRELL, T. 1986. Acquisition in the natural approach: The binding/access framework. *Modern Language Journal* 70.3: 213-227.
TERRELL, T., B. BAYCROFT and C. PERRONE. 1987. The subjunctive in Spanish interlanguage: Accuracy and comprehensibility. In B. VanPatten, T.R. Dvorak and J.F. Lee (eds.), *Foreign language learning: A research perspective*. Cambridge, MA: Newbury House.
VAN NAERSSEN, M. 1980. How similar are Spanish as a first language and Spanish as a second language? In R. Scarcella and S. Krashen (eds.), *Research in second language acquisition*. Rowley, MA: Newbury House.
VAN NAERSSEN, M. 1982. Generalizing second language hypotheses across languages: A test case in Spanish as a second language. Ph. D. dissertation, UCLA.
VAN NAERSSEN, M. 1986. Hipótesis sobre la adquisición de una segunda lengua, consideraciones "inter-lenguaje": comprobación en español. In Jurgen Meisel (ed.), *Adquisición de lenguaje, Adquisiçao da linguagem*. Frankfurt: Vervuert.
VANPATTEN, B. 1981. The acquisition of SER and ESTAR and the preterit tense in two learners of Spanish. Unpublished M.A. thesis. University of Texas at Austin.
VANPATTEN, B. 1985. The acquisition of SER and ESTAR by adult learners of Spanish: A preliminary investigation of transitional stages of competence. *Hispania* 68: 399-406.
VANPATTEN, B. 1987a. Classroom learners' acquisition of SER and ESTAR: Accounting for developmental patterns. In B. VanPatten, T.R. Dvorak and J.F. Lee (eds.), *Foreign language learning: A research perspective*. Cambridge, MA: Newbury House.
VANPATTEN, B. 1987b. Classroom and naturalistic language acquisition: A comparison of two case studies in the acquisition of clitic pronouns in Spanish. In T.A. Morgan, J.F. Lee and B. VanPatten (eds.), *Language and language use: Studies in Spanish*. New York: University Press of America.
VAN SCHOONEVELD, C. 1978. *Semantic transmutations*. Vol 1. Bloomington: Physsardt.
WAUGH, L. 1976a. *Roman Jakobson's science of language*. Lisse: Peter de Ridder.
WAUGH, L. 1976b. A semantic analysis of the French tense system. *Orbis* 24.2: 436-485.
WAUGH, L. 1977. *A semantic analysis of word order*. Leiden: E.J. Brill.