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A Cross-sectional Study on L3 Acquisition.

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A Cross-sectional Study on L3 Acquisition.¹

Veronica González-Mena LoCoco
University of Santa Clara

Introduction.

Studies on L2 acquisition in young children have lead to the hypothesis held primarily by Dulay and Burt (1972) that young learners follow the same process in L2 acquisition as they do in L1 acquisition. However, the extension of the L1 = L2 hypothesis to older learners is still debatable. The presence of mother-tongue interference in the target language suggests that a learner relies on all previous language experience, L1 as well as L2, when confronted with a new language learning situation. L1 experience in the young learner is rather limited when compared to the L1 experience of an adult learner. A greater degree of mother-tongue interference has in fact been observed among older learners than among younger learners, although it is not absent in younger learners either. Dusková (1969), Powell (1975), LoCoco (1975a) found a high incidence of inter-

¹I wish to express my gratitude to Mr. Christian Bruppacher, principal of the Colegio Suizo de México, A.C., and to the English teachers of the school for their most helpful cooperation. I also wish to thank Dr. Andrew I. Rematore for his assistance with the identification of errors, and Dr. Michael Chamberlain for his help with the statistical analysis.

Interference has been found to vary from subject to subject. Bertkau (1974) noticed great irregularity and inconsistency in his subjects' use of variants. He defined a variant as a pattern of speech which recurred in the subjects' data, and which was a lexical, morphological, or syntactic change of the original sentence. Within the same subject, interference also varies through time. Taylor (1975) investigated the relationship between the strategies of overgeneralization and transfer, and the degree to which elementary and intermediate students of ESL rely on those strategies while learning English. His study indicates that elementary subjects rely heavily on the transfer strategy, while intermediate subjects rely proportionately less frequently on their mother-tongue grammar. The increased knowledge of the target language leads to the more frequent use of overgeneralization strategies. LoCoco (1975a) analyzed errors of learners over a period of five months. Intralingual errors followed a pattern similar to the one in Taylor's study. However, the proportion of interlingual errors fluctuated during studied period. It did not decrease significantly as in Taylor's investigation.

These studies, and those performed by Dulay and Burt (1974 a,b) in which no significant mother-tongue interference was found, raise
several questions:

Is age one of the major factors contributing to mother-tongue interference? Or, is mother-tongue interference more dependent on the amount of knowledge of the target language system? Or, are at any stage of learning, the pressures toward simplification and generalization of the target language system so much greater than the strategy of transfer, that interference caused by the latter actually becomes insignificant?

The presence of mother-tongue interference in any amount would suggest that the learner relies on previous language experience as he attempts the learning of a new language. Mother-tongue interference in the learner's language would therefore disprove the LI-L2 hypothesis.

The present study was intended to shed some light on the above questions. It investigates the reliance on previous language experience by learners of a third language, of varying ages, and at different levels of language study. The assumption is made that strategies used in L3 acquisition are the same as those of L2 acquisition; the only difference lies in previous language experience. If the LI-L2 hypothesis is true, previous experience should not be significantly reflected in the errors produced by the learners. If on the other hand previous language experience affects learning, the degree of bilingualism should influence errors qualitatively and quantitatively. If as Taylor's study
indicates, interlingual interference is more frequent at the initial stages, it is at these stages where major differences should be found.

Taylor's study suggests that when the learner of a foreign language encounters the system of the target language, the limited knowledge of the new system causes the learner to rely more heavily on his previous language experience to cope with the new situation. As knowledge of the target language increases, the learner makes use of the newly acquired knowledge.

It has been established that the learner's language is under two types of pressure: towards simplification, and towards complexification of the target language rule system to approximate the target language speaker's system. In the simplification process, the learner omits parts of grammar which he perceives as redundant and unnecessary. George (1972), and LoCoco (1975a,b) suggest that such simplification tends to be furthered when the mother-tongue structure does not require the redundant form. Mother-tongue interference may, therefore, not only be evidenced in the form of the application of a mother-tongue rule to the target language, but also in the form of the omission of a particular form. Interference here is dual: the mother-tongue, as well as the target language pull toward simplification.

In this investigation, cases of simplification in which a redundant L3 form is omitted were not expected to be influenced quantitatively by the degree of bilingualism. Knowledge of L3 in
this study was approximately the same for subjects in a given school grade, and was necessarily exceeded by L1 and L2 knowledge. That is, when a learner encountered a new L3 structure which lent itself to simplification because of the presence of redundant forms, and absence of such forms in L1 and L2, all learners had knowledge of the corresponding L1 and L2 forms. Pressure towards simplification was assumed to be the same for all.

Although previous language experience has been known to cause interference, the learning of a foreign language is possibly also furthered by such experience, and specifically by the awareness of relationships between the new language, and the known language or languages. Studies conducted by Peal and Lambert (1962) and by Lerea and Kohut (1961) in which monolinguals and bilinguals were compared in verbal and non-verbal tasks, showed that bilinguals scored higher than monolinguals. Kittel (1963) performed a similar investigation with third, fourth and fifth grade children. Fifth graders from a bilingual environment were also found to be superior in verbal tasks.

If bilinquialism contributes to better verbal performance, it very likely also contributes to L3 learning. Such contribution would be reflected in the number and kinds of errors in the learner’s speech.

Specifically then, this study intends to provide information which can help answer the questions:
1. How is mother-tongue interference influenced by the age of the learner?
2. How is mother-tongue interference influenced by the stage of learning?
3. How are errors affected by previous language experience?
4. How does the proportion of interlingual errors compare to that of intralingual errors at different ages, and different learning stages?

Subjects.
The subjects were students at the Colegio Suizo, A.C. in Mexico City, studying English. All subjects were German-Spanish bilinguals to varying degrees. German instruction for all children at the Colegio Suizo begins informally in Kindergarten through commands, stories, songs, games, poems. Daily formal German instruction takes place in grades 1 through 13. In addition, German is used as instructional language for various subjects. From a total of 29 hours a week of instruction, from 10 to 19 hours are taught in German. In the sixth grade, a daily 45 minute period of English instruction starts.

Trilinguals studying English as their fourth language were eliminated. Grades 6 through 13 were studied. Instruction in English ranged from three months in grade 6, to eight years and three months in grade 13. The students ranged in age from 10;11 in grade 6 to 19;8 in grade 13. They numbered 187.
Subjects were divided into two groups: the German group, and the Spanish group. The German group consisted of subjects who spoke German at home with parents and siblings. The Spanish group consisted of subjects whose home language was Spanish, although some of them spoke German with one or more of their grandparents.

Collection of data.

Three months after the beginning of the school year, students were assigned a composition. They were informed that it was for research purposes, and would not be graded. Length of the compositions varied from 1/2 to 3/4 of a handwritten page for the primary grades, and from 1 to 1 1/2 for the secondary and preparatory grades.

Analysis of samples. Taxonomy of error types.

Compositions were analyzed as to the errors they presented. Errors were classified based on their possible source. Categories were established having two major learning strategies in mind: overgeneralization and transfer. Errors due to overgeneralization result when the learner has learned a rule, but does not control its distribution. Errors due to overgeneralization have been termed intralingual errors.

Lexical, morphological, and syntactic errors were analyzed. A lexical error was categorized as intralingual when the lexical item was used to provide a meaning which it does not have. An example is the confusion of question words, what used for when.
A morphological intralingual error is one in which a morpheme is improperly used, for example: I has, she have.

A syntactic error was labeled intralingual when an L3 syntactic rule, inapplicable to the particular structure, was used in the construction of the phrase or sentence.

When the strategy of transfer causes an error, a rule of L1 or of L2 which is not applicable to L3, is applied to L3. Errors due to transfer are labeled interlingual errors.

A lexical error was classified as interlingual when the meaning of a phonologically similar item in L1 or in L2 was extended to the item in L3. False cognates are interlingual lexical errors.

A morphological or syntactic error was categorized as interlingual when a morphological or syntactic rule of L1 or of L2 which does not apply to L3 was applied.

Because three languages were involved in the analysis of errors, based on the applicability of rules, the following were the possibilities:

1. The three languages have parallel rules.
2. Each language has a different rule.
3. The same rule applies to L1 and L2, but not to L3.
4. The same rule applies to L2 and L3, but not to L1.
5. The same rule applies to L1 and L3, but not to L2.

In the first case, when the three languages have parallel rules, and an error occurred, it was labeled "lack of transfer" error.
In the second case, where each language has a different rule, if the resulting error could be attributed to the target language system, it was termed intralingual. Although a distinction was made between lack of transfer errors and intralingual errors, the former also appear to be caused by the target language system. The difference lies in that the structures in which the lack of transfer errors occur have parallel rules to those of the known languages, whereas intralingual errors occur in structures with different rules. Lack of transfer errors are therefore a type of intralingual error.

Errors that pertained to cases 3, 4 or 5, were interlingual when the error could be attributed to either the L1 or the L2 system. Interlingual errors were subdivided as follows:

Spanish-German interlingual (case 3)

Spanish interlingual:
E - G (English and German have parallel rules; case 4)
E - G (English and German have different rules)

German interlingual:
E - S (English and Spanish have parallel rules; case 5)
E - S (English and Spanish have different rules)

Decisions on how to label an error are somewhat arbitrary. Spanish interlingual errors in which E - G, if based on German, would be German lack of transfer errors; and German interlingual errors in which E - S, if based on Spanish, would be Spanish lack of transfer errors. Errors in cases 3, 4, and 5 may in addition be dual errors, that is, L3 is simplified and the resulting form is parallel to the correct L1 or L2 form.
Statistical analysis.

The hypothesis of mutual independence among previous language experience, English proficiency level (elementary, intermediate, intermediate-advanced), and type of error was tested by using a chi-square test on a three-way contingency table.

Each of the following null hypotheses was tested by applying the Mann-Whitney U test to the distribution of students, making 0,1,2,3,..., errors of the type in question. The corresponding alternative hypothesis was that the first type of error exceeds the second type of error.

Hypotheses:

German-group intralingual errors   Spanish-group intralingual errors
Spanish-group interlingual errors   German-group interlingual errors
Intralingual errors (both groups)   Interlingual errors (both groups)
Spanish group:

Spanish interlingual errors   German interlingual errors
German group:

Spanish interlingual errors   German interlingual errors

Both Spearman's rank difference coefficient, and Kendall's tau coefficient were calculated for the correlation of average number of errors per class in the eight classes studied.

Results.

The number of errors in each category for both groups, Spanish and German, are presented in the following tables.
### TABLE 1

Spanish-group errors.

<table>
<thead>
<tr>
<th>Grade</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of subjects</td>
<td>16</td>
<td>20</td>
<td>7</td>
<td>19</td>
<td>13</td>
<td>10</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Error type</td>
<td>Number of errors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of transfer</td>
<td>14</td>
<td>21</td>
<td>7</td>
<td>24</td>
<td>12</td>
<td>5</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Intralingual</td>
<td>10</td>
<td>30</td>
<td>14</td>
<td>46</td>
<td>22</td>
<td>9</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>Spanish interlingual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$E = G$</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>$E \neq G$</td>
<td>9</td>
<td>9</td>
<td>3</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>German interlingual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$E = S$</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>$E \neq S$</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Spanish German interlingual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>17</td>
<td>2</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
### TABLE 2

German-group errors.

<table>
<thead>
<tr>
<th>Grade</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of subjects</td>
<td>14</td>
<td>12</td>
<td>16</td>
<td>8</td>
<td>11</td>
<td>5</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Error type</th>
<th>Number of errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of transfer</td>
<td>25 10 25 8 18 4 4 8</td>
</tr>
<tr>
<td>Intralingual</td>
<td>10 14 31 15 18 8 5 15</td>
</tr>
<tr>
<td>Spanish interlingual</td>
<td></td>
</tr>
<tr>
<td>[E = G]</td>
<td>3 2 3 1 5 2 0 2</td>
</tr>
<tr>
<td>[E \neq G]</td>
<td>1 0 4 3 1 0 0 6</td>
</tr>
<tr>
<td>German interlingual</td>
<td></td>
</tr>
<tr>
<td>[E = S]</td>
<td>1 0 1 0 0 0 1 1</td>
</tr>
<tr>
<td>[E \neq S]</td>
<td>4 6 8 3 6 0 2 0</td>
</tr>
<tr>
<td>Spanish-German interlingual</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 9 8 1 8 0 2 1</td>
</tr>
</tbody>
</table>
The hypothesis of mutual independence among language experience, English proficiency level, and type of error was rejected at the 5% level.

The null hypothesis that German-group intralingual errors Spanish-group intralingual errors was not rejected, the level of significance being 36%.

The hypothesis that Spanish-group interlingual errors German-group interlingual errors was rejected. The alternative hypothesis, that Spanish-group interlingual errors exceed German-group interlingual errors was accepted at the 10% level.

The hypothesis that intralingual errors interlingual errors was equally rejected. The alternative hypothesis that intralingual errors exceed interlingual errors was significant at the 15% level.

The hypothesis that in the Spanish group, Spanish interlingual errors exceed German interlingual errors was significant at the 5% level. However, the hypothesis that in the German group, Spanish interlingual errors exceed German interlingual errors had to be rejected (level of significance: 32%).

Spearman's rank difference coefficient $r_d$ and Kendall's tau coefficient $T$ gave the following results with respect to the correlation of average number of errors per class in the eight classes:

<table>
<thead>
<tr>
<th></th>
<th>$r_d$</th>
<th>$T$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intralingual errors</td>
<td>0.12</td>
<td>0.07</td>
</tr>
<tr>
<td>Interlingual errors</td>
<td>-0.52</td>
<td>-0.50</td>
</tr>
</tbody>
</table>

The decrease in interlingual errors was significant at the 10% level, based on a one-sided test.
Conclusions.

Several conclusions can be drawn from this investigation. With respect to the questions posited in the introduction of the study, the following information can now be given:

The study does not provide any evidence that the age of the learner - after age 10 - is a major factor which quantitatively affects interlingual errors. Because Dulay and Burt (in Tarone 1974) report no significant mother-tongue interference in their subjects (ages up to 9), and research on older subjects does provide evidence for mother-tongue interference, the possibility was considered that interlingual errors increase quantitatively as learners become older. However, this study shows that such an assumption is incorrect. Factors other than age seem to be responsible for variability in the occurrence of interlingual errors.

Taylor's study (1975) indicates that the stage of language learning influences the incidence of interlingual errors. The results from this investigation provide further evidence for this claim. Specifically, that at the initial stages learners rely extensively on their native languages, but as proficiency in the target language increases, they rely proportionately less on the mother-tongue system.

The fact that intralingual errors exceeded interlingual errors at all grade levels, appears to indicate that learners use the information of the target language for hypothesizing about its rules, immediately after exposure to the new system. At all times, reliance
on the target language exceeds reliance on the previously known languages, a fact also reflected in the high incidence of "lack of transfer" errors. The decrease of intralingual errors probably corresponds to the mastering of rules which were not known earlier. The increase of intralingual errors seems to reflect the increased exposure to rules; until their correct application is learned, numerous errors occur. Once the rules and their distribution are mastered, errors decrease. LoCoco (1975a) found that a sudden increase in errors could always be related to the introduction of new rules in the classroom. We may not, therefore, link an increase of intralingual errors exclusively to the level of proficiency, but rather to additional exposure to target language rules. Increased proficiency is coupled with increased knowledge of rules and their distribution. This may bring about a decrease in intralingual errors.

Previous language experience also appears to be a factor which influences the occurrence of types of errors. Increased experience with languages seems to result in proportionately fewer interlingual errors in the learner's language. The more bilingual learner is possibly aware of the fact that reliance on one system may cause interference in the other system. He consequently relies less on the known languages, than the less bilingual learner. The less bilingual learner also tends to rely more on his stronger language, while in the more bilingual learner, reliance appears to be more evenly distributed between L1 and L2.
While the incidence of interlingual errors appears to be significantly influenced by the degree of bilingualism, this is not the case with intralingual errors.

The comparison of the results of this study with those of other foreign language acquisition studies leads to further important conclusions. The study provides support for Taylor's finding (1975) that increased proficiency in English does not qualitatively affect the kinds of errors which a learner makes. Kinds of errors committed by all learners tended to be very similar. Learning strategies appear to be employed in characteristically the same way. However, learners at different levels of proficiency, and with different language experience use the strategies in varying degrees, resulting in quantitative differences.

An interesting finding is that do omission only took place in questions. Except for one case, do was always provided in negative statements. It appeared in the form don't. Hatch (1974), and Cancino, Rosansky and Schumann (1974) suggest that don't may be learned as a unit. Some subjects in Hatch' study began using negative imperatives immediately with don't. But there was no evidence of do-support. Don't appeared to be more of a negative marker than a tense carrier.

Hakuta (1974) also reports certain patterns which appear to be learned as units. The findings in this study equally suggest that don't is learned as a unit which performs the function of negative marker.
Selinker, Swain, and Dumas (1975) propose the extension of the interlanguage hypothesis to children. Previously it had only been applied to adults. This hypothesis claims that the second-language speech differs from the mother-tongue, and from the target language in systematic ways, and that the forms produced by the learner are not random. The errors which learners produce reflect strategies common to all learners. The above mentioned investigators studied the speech of 7 year old L2 learners. L2 acquisition was non-simultaneous and occurred in the absence of native speaking peers of the target language. Their subjects were found to use the strategies of language transfer, overgeneralization of target language rules, and simplification.

The setting for this study was similar to that of Selinker, Swain, and Dumas, in that L3 acquisition was non-simultaneous with L1, and took place in the absence of native speaking peers of the target language. The errors of all learners, ages 10 through 19, reflected the same strategies of language transfer, overgeneralization, and simplification. This investigation then, provides further evidence that the interlanguage hypothesis applies to children, as well as to adults.

The assumption that strategies used in L3 acquisition are the same as those of L2 acquisition also proved to be correct. However, L2 and L3 acquisition cannot be claimed to equal L1 acquisition, since learners of all ages, and at all proficiency levels
employed the strategy of language transfer, which is absent in L1 acquisition. Further, production of negative statements in English followed a pattern that has been observed in other L2 learners, but which is not the pattern observed in learners of English as the first language. This suggests the possibility of common patterns of L2 structure acquisition.
APPENDIX.

Error categories and selected examples.

Lack of Transfer errors.
These are intralingual errors which occur when all languages involved have parallel rules.

Verb errors.

I. Errors with "to be".
Singular form of verb used with plural subject.
The two tables is brown.
The cookies is big.
We was in our sleeping bag.

Plural form of verb used with singular subject.
The stove are white.
The floor are clean.
(Context indicated that the error pertained to the verb, and not to the noun)

Copula omission.
The cat black.
My television on.

II. Auxiliary errors.

Auxiliary omission.
I going now.
We playing.

Wrong auxiliary form.
We was playing.
III. Participle errors.
Present tense for participle.

   The classes are begin.
   We have buy.
   They have eat.

IV. Tense errors.
Misuse of the past tense morpheme.

   She let them entered.
   Mrs. Smith could recognized the painter.
   The men told the policemen to opened the door.

Use of the present tense for the past tense.

   This morning John says to me.
   Last year I have fever.
   An attendant came and give us refreshments.

Use of the progressive tense for the past tense.

   Only my father was knowing Mexico.

Preposition errors.

Preposition omission.

   I don't want to arrive school late.
   We arrived the place.

Pronoun errors.

Pronoun omission.

   Do you have our passports? Yes, I have.

Adjective errors.

Adjective omission.
That's a very problem.

Use of adverb for adjective.

We saw the earth move in the exactly place.

Determiner errors.

Article omission.

It is Beechcraft Duke.

Negrin is nice dog.

Singular demonstrative for plural demonstrative.

This pencils are expensive.

This are white and orange.

Noun errors.

Singular noun for plural noun.

Here are our boarding pass.

Two teacher.

I have a diagram with instruction.

Intralingual errors.

Verb errors.

Omission of third person singular s.

It cost five pesos.

It don't cause trouble.

He give you presents.

John come today.

Wrong verb form.

I says to my mother.

I are better
Regularization of a verb.

They teached me.
I caughted four fish.

Use of verb in past tense after did.

She didn't found me.

Pronoun errors.
He used for she.
His used for her.
Their used for they.

Preposition errors.

At required.
Paul and Mary arrive to the airport.
My dog goes to sleep to 9 o'clock.
On the end, the fish died.

On required.
My kitchen is in the right.
At my vacation.

Of required.
The door for the living room.
We saw fish for many colors.

To required.
Can you come this afternoon at a lunch?
We went at the movies to see a good film.

In required.
And at the morning it was cold.
Determiner errors.
A electric stove.
A appointment.
A other fish.
Lexical confusion.

Words.
Where dog do you want?
The restaurant who I go.
The place who we swam.
One reason because we are not good students is...

They and there confusion.
They are many cookies.
There are very comfortable.

Miscellaneous.
There is too one refrigerator. (also)
He told us much stories.
My cat is a woman. (female)
It is better to walk when to fly.
The man cried. (yelled)
You say me. (tell)

Spanish interference errors.

Verb errors.
Wrong verb.
She has 12 years. (Tiene 12 años)
It has five meters long. (Tiene cinco metros de largo)
My nephews made me a party. (Mis sobrinos me hicieron una fiesta)
The poor have to pass cold. (Los pobres tienen que pasar frío)

Omission of infinitive marker to.
I think it is better go to school. (Creo que es mejor ir a la escuela)
I think it is better stay here. (Creo que es mejor quedarse aquí)

Auxiliary omission.
I born in Mexico City. (Nací en México)

Preposition errors.
Wrong preposition.
The food is in the table. (La comida está en la mesa)

Unnecessary preposition.
Peter is beside of the door. (Pedro está junto a la puerta)
She telephones to the police. (Telefonea a la policía)
I called to the hospital. (Llamé al hospital)
I am a boy of 15 years old. (Soy un muchacho de 15 años)
She is an inspector from schools. (Es una inspectora de escuelas)
The car from my father. (El coche de mi padre)

Pronoun errors.
Omission of subject pronoun.
Have three sisters. (Tengo tres hermanas)
I like him, is very nice. (Me gusta, es muy simpático)
Yes, here (it) is. (Sí, aquí está)
He went to see who (it) was. (Fue a ver quién era)

Adverb errors.

Adverb omission.

Is the doctor? (there). (¿Está el doctor?)

Adjective errors.

Unnecessary adjective.

I have a two fish. (Tengo unos dos pescados)

Adjective omission.

Micky is three years. (Micky tiene tres años)

Determiner errors.

Unnecessary article.

The last Saturday... (El último sábado)

He sleeps all the day. (Duerme todo el día)

They play all the afternoon. (Juegan toda la tarde)

Noun errors.

Singular noun for plural noun.

She was one and a half month old. (Tenía mes y medio)

Wrong plural.

Elephantes. (Ílefantes)

False cognates.

The boy divided an island. (saw) (El muchacho dividió una isla)

If we were in such a case for one day... (situation) (Si estuvieramos en tal caso...)

The actual president. (present) (El presidente actual)

Double negatives.

Don't bring me nothing. (No me traigas nada)
Made-up words.

Equipe (team). (Equipo)

Descalificated (disqualified). (Descalificado)

The gigant (giant). (El gigante)

German interference errors.

Verb errors.

Wrong verb.

In the morning we stand up (get up). (Am Morgen steh wir auf)

After she had dressed the sheet... (put on). (Nachdem sie das Laken angezogen hatte...)

We musted work about 15 minutes. (had to). (Wir mussten ungefähr 15 Minuten arbeiten)

I must make my homework. (Ich muss meine Hausarbeit machen)

I like to go to wander. (Ich mag wandern gehn)

False cognates.

I don't will arrive late. (want to). (Ich will nicht spät ankommen)

My do will food. (Mein Hund will essen)

They never became anything from you. (received). (Sie haben nie etwas von Dir bekommen)

All became the greatest scare. (Alle bekamen den grössten Schrecken)

Wrong tense. Compound past for simple past.

The first day we have been to Cozumel. (we went)

(An ersten Tag sind wir in Cozumel gewesen)

Next day we are gone to swim. (we went swimming)

(An nächsten Tag sind wir schwimmen gegangen)
Because it rained, we have slept in the hotel. (slept)
(Weil es regnete haben wir im Hotel geschlafen)
At 7 o'clock we have eaten cake. (ate)
(Um sieben haben wir Kuchen gegessen)

Preposition errors.
Preposition omission.
I was born the 31st. July. (Ich bin am 31ten. Juli geboren)
The machine is full plates. (Die Maschine ist voller Teller)

Determiner errors.
Addition of determiner.
The maid is a very lazy. (Die Magd ist eine grosse Faule)

Adverb errors.
It isn't so interesting as American football.
( Es ist nicht so interessant wie Amerikanisches-fussball)
It is so pretty a car. (Es ist so ein schönes Auto)

Word order errors.
Now is Tüfeli one year old. (Jetzt ist Tüfeli ein Jahr alt)
I want not work. (Ich möchte nicht arbeiten)
Here is it. (Hier ist es)

Spanish-German interference errors.

Do omission.
When he comes?
You have our passports?
How much costs it?
What like you?
Pronoun errors.
I want ma many things. (Me deseo muchas cosas)
(Ich wünsche mir viele Sachen)
The only that has color... (El único que tiene color...)
(Der einzig der Farbe hat...)
She is electric (the stove). (Es eléctrica)
(Er ist elektrisch)
He is on the left (the refrigerator). (Está a la izquierda)
(Er ist rechts)
Do you have all? (everything). (¿Tienes todo?)
(Hast Du alles?)

Preposition errors.

Preposition omission.
After trying it some minutes. (Después de tratarlo unos minutos)
(Nachdem er es einige Minutes versuchte)

Wrong preposition.
In my last holidays I went to Costa Rica. (En mis últimas...)
(In meinen letzten...)

Preposition addition.
I entered in a Kung Fu school. (Entré en una escuela...)
(Ich bin in eine Schule eingetreten)

Adjective errors.

Unnecessary adjective and noun agreement.
He heard what the others clients said. (Oyó lo que los otros clientes dijeron)
(Er hörte was die anderen Kunden sagten)
The hotels have big swimming pools. (Los hoteles tienen albercas grandes)

(Die Hotels haben grosse Schwimmbasins)

**Determiner errors.**

Determiner omission.

My mother is teacher. (Mi madre es profesora)

(Meine Mutter ist Lehrerin)

Determiner addition.

She is around the 70 years old. (Anda por los 70 años)

(Sie ist um die 70 Jahre alt)

**Noun errors.**

Plural noun for singular noun.

My last vacations. (Mis últimas vacaciones)

(Meine letzten Ferien)
BIBLIOGRAPHY.


The errors of 187 bilingual students, aged 10 years, 11 months to 19 years, 8 months were analyzed as they studied English as a third language. Errors were categorized with two major learning strategies in mind: transfer and overgeneralization. Types of errors were related to degree of bilingualism, English proficiency level and age of the learners. It was found that mother-tongue interference errors are quantitatively affected by the degree of bilingualism, and by the level of proficiency in the target language. Error types did not vary qualitatively for the studied subjects. Certain interlanguage structures emerged which suggest the possibility of common patterns of L2 structure acquisition among foreign language learners. (Author)
A Cross-sectional Study on L3 Acquisition.

Veronica Gómez-Mena LoCoco
University of Santa Clara

Abstract.

The errors of 187 bilingual students - aged 10;11 to 19;8 - were analyzed as they studied English as a third language. Errors were categorized having two major learning strategies in mind: transfer and overgeneralization. Types of errors were related to degree of bilingualism, and English proficiency level and age of the learners. It was found that mother-tongue interference errors are quantitatively affected by the degree of bilingualism, and by the level of proficiency in the target language. Error types did not vary qualitatively for the studied subjects. Certain interlanguage structures emerged which suggest the possibility of common patterns of L2 structure acquisition among foreign language learners.
A Cross-sectional Study on L3 Acquisition.\(^1\)

Veronica González-Mena LoCoco
University of Santa Clara

Introduction.

Studies on L2 acquisition in young children have lead to the hypothesis held primarily by Dulay and Burt (1972) that young learners follow the same process in L2 acquisition as they do in L1 acquisition. However, the extension of the L1=L2 hypothesis to older learners is still debatable. The presence of mother-tongue interference in the target language suggests that a learner relies on all previous language experience, L1 as well as L2, when confronted with a new language learning situation. L1 experience in the young learner is rather limited when compared to the L1 experience of an adult learner. A greater degree of mother-tongue interference has in fact been observed among older learners than among younger learners, although it is not absent in younger learners either. Dusková (1969), Powell (1975), LoCoco (1975a) found a high incidence of inter-

\(^1\)I wish to express my gratitude to Mr. Christian Bruppacher, principal of the Colegio Suizo de México, A.C., and to the English teachers of the school for their most helpful cooperation. I also wish to thank Dr. Andrew I. Rematore for his assistance with the identification of errors, and Dr. Michael Chamberlain for his help with the statistical analysis.

Interference has been found to vary from subject to subject. Bertkau (1974) noticed great irregularity and inconsistency in his subjects' use of variants. He defined a variant as a pattern of speech which recurred in the subjects' data, and which was a lexical, morphological, or syntactic change of the original sentence. Within the same subject, interference also varies through time. Taylor (1975) investigated the relationship between the strategies of overgeneralization and transfer, and the degree to which elementary and intermediate students of ESL rely on those strategies while learning English. His study indicates that elementary subjects rely heavily on the transfer strategy, while intermediate subjects rely proportionately less frequently on their mother-tongue grammar. The increased knowledge of the target language leads to the more frequent use of overgeneralization strategies. LoCoco (1975a) analyzed errors of learners over a period of five months. Intralingual errors followed a pattern similar to the one in Taylor's study. However, the proportion of interlingual errors fluctuated during studied period. It did not decrease significantly as in Taylor's investigation.

These studies, and those performed by Dulay and Burt (1974 a,b) in which no significant mother-tongue interference was found, raise
several questions:

Is age one of the major factors contributing to mother-tongue interference? Or, is mother-tongue interference more dependent on the amount of knowledge of the target language system? Or, are at any stage of learning, the pressures toward simplification and generalization of the target language system so much greater than the strategy of transfer, that interference caused by the latter actually becomes insignificant?

The presence of mother-tongue interference in any amount would suggest that the learner relies on previous language experience as he attempts the learning of a new language. Mother-tongue interference in the learner's language would therefore disprove the L1-L2 hypothesis.

The present study was intended to shed some light on the above questions. It investigates the reliance on previous language experience by learners of a third language, of varying ages, and at different levels of language study. The assumption is made that strategies used in L3 acquisition are the same as those of L2 acquisition; the only difference lies in previous language experience. If the L1-L2 hypothesis is true, previous experience should not be significantly reflected in the errors produced by the learners. If on the other hand previous language experience affects learning, the degree of bilingualism should influence errors qualitatively and quantitatively. If as Taylor's study
indicates, interlingual interference is more frequent at the initial stages, it is at these stages where major differences should be found.

Taylor's study suggests that when the learner of a foreign language encounters the system of the target language, the limited knowledge of the new system causes the learner to rely more heavily on his previous language experience to cope with the new situation. As knowledge of the target language increases, the learner makes use of the newly acquired knowledge.

It has been established that the learner's language is under two types of pressure: towards simplification, and towards complexification of the target language rule system to approximate the target language speaker's system. In the simplification process, the learner omits parts of grammar which he perceives as redundant and unnecessary. George (1972), and LoCoco (1975a,b) suggest that such simplification tends to be furthered when the mother-tongue structure does not require the redundant form. Mother-tongue interference may, therefore, not only be evidenced in the form of the application of a mother-tongue rule to the target language, but also in the form of the omission of a particular form. Interference here is dual: the mother-tongue, as well as the target language pull toward simplification.

In this investigation, cases of simplification in which a redundant L3 form is omitted were not expected to be influenced quantitatively by the degree of bilingualism. Knowledge of L3 in
this study was approximately the same for subjects in a given school grade, and was necessarily exceeded by L1 and L2 knowledge. That is, when a learner encountered a new L3 structure which lent itself to simplification because of the presence of redundant forms, and absence of such forms in L1 and L2, all learners had knowledge of the corresponding L1 and L2 forms. Pressure towards simplification was assumed to be the same for all.

Although previous language experience has been known to cause interference, the learning of a foreign language is possibly also furthered by such experience, and specifically by the awareness of relationships between the new language, and the known language or languages. Studies conducted by Peal and Lambert (1962) and by Lereea and Kohut (1961) in which monolinguals and bilinguals were compared in verbal and non-verbal tasks, showed that bilinguals scored higher than monolinguals. Kittel (1963) performed a similar investigation with third, fourth and fifth grade children. Fifth graders from a bilingual environment were also found to be superior in verbal tasks.

If bilingualism contributes to better verbal performance, it very likely also contributes to L3 learning. Such contribution would be reflected in the number and kinds of errors in the learner's speech.

Specifically then, this study intends to provide information which can help answer the questions:
1. How is mother-tongue interference influenced by the age of the learner?

2. How is mother-tongue interference influenced by the stage of learning?

3. How are errors affected by previous language experience?

4. How does the proportion of interlingual errors compare to that of intralingual errors at different ages, and different learning stages?

Subjects.

The subjects were students at the Colegio Suizo, A.C. in Mexico City, studying English. All subjects were German-Spanish bilinguals to varying degrees. German instruction for all children at the Colegio Suizo begins informally in Kindergarten through commands, stories, songs, games, poems. Daily formal German instruction takes place in grades 1 though 13. In addition, German is used as instructional language for various subjects. From a total of 29 hours a week of instruction, from 10 to 19 hours are taught in German. In the sixth grade, a daily 45 minute period of English instruction starts.

Trilinguals studying English as their fourth language were eliminated. Grades 6 through 13 were studied. Instruction in English ranged from three months in grade 6, to eight years and three months in grade 13. The students ranged in age from 10;11 in grade 6 to 19;8 in grade 13. They numbered 187.
Subjects were divided into two groups: the German group, and the Spanish group. The German group consisted of subjects who spoke German at home with parents and siblings. The Spanish group consisted of subjects whose home language was Spanish, although some of them spoke German with one or more of their grandparents.

Collection of data.
Three months after the beginning of the school year, students were assigned a composition. They were informed that it was for research purposes, and would not be graded. Length of the compositions varied from 1/2 to 3/4 of a handwritten page for the primary grades, and from 1 to 1 1/2 for the secondary and preparatory grades.

Analysis of samples. Taxonomy of error types.
Compositions were analyzed as to the errors they presented. Errors were classified based on their possible source. Categories were established having two major learning strategies in mind: overgeneralization and transfer. Errors due to overgeneralization result when the learner has learned a rule, but does not control its distribution. Errors due to overgeneralization have been termed intralingual errors.

Lexical, morphological, and syntactic errors were analyzed. A lexical error was categorized as intralingual when the lexical item was used to provide a meaning which it does not have. An example is the confusion of question words, what used for when.
A morphological intralingual error is one in which a morpheme is improperly used, for example: I has, she have.

A syntactic error was labeled intralingual when an L3 syntactic rule, inapplicable to the particular structure, was used in the construction of the phrase or sentence.

When the strategy of transfer causes an error, a rule of L1 or of L2 which is not applicable to L3, is applied to L3. Errors due to transfer are labeled interlingual errors.

A lexical error was classified as interlingual when the meaning of a phonologically similar item in L1 or in L2 was extended to the item in L3. False cognates are interlingual lexical errors.

A morphological or syntactic error was categorized as interlingual when a morphological or syntactic rule of L1 or of L2 which does not apply to L3 was applied.

Because three languages were involved in the analysis of errors, based on the applicability of rules, the following were the possibilities:

1. The three languages have parallel rules.
2. Each language has a different rule.
3. The same rule applies to L1 and L2, but not to L3.
4. The same rule applies to L2 and L3, but not to L1.
5. The same rule applies to L1 and L3, but not to L2.

In the first case, when the three languages have parallel rules, and an error occurred, it was labeled "lack of transfer" error.
In the second case, where each language has a different rule, if the resulting error could be attributed to the target language system, it was termed intralingual. Although a distinction was made between lack of transfer errors and intralingual errors, the former also appear to be caused by the target language system. The difference lies in that the structures in which the lack of transfer errors occur have parallel rules to those of the known languages, whereas intralingual errors occur in structures with different rules. Lack of transfer errors are therefore a type of intralingual error.

Errors that pertained to cases 3, 4 or 5, were interlingual when the error could be attributed to either the L1 or the L2 system. Interlingual errors were subdivided as follows:

Spanish-German interlingual (case 3)

Spanish interlingual:

\( E \rightarrow G \) (English and German have parallel rules; case 4)

\( E \rightarrow G \) (English and German have different rules)

German interlingual:

\( G \rightarrow S \) (English and Spanish have parallel rules; case 5)

\( G \rightarrow S \) (English and Spanish have different rules)

Decisions on how to label an error are somewhat arbitrary. Spanish interlingual errors in which \( E \rightarrow G \), if based on German, would be German lack of transfer errors; and German interlingual errors in which \( G \rightarrow S \), if based on Spanish, would be Spanish lack of transfer errors. Errors in cases 3, 4, and 5 may in addition be dual errors, that is, L3 is simplified and the resulting form is parallel to the correct L1 or L2 form.
Statistical analysis.

The hypothesis of mutual independence among previous language experience, English proficiency level (elementary, intermediate, intermediate-advanced), and type of error was tested by using a chi-square test on a three-way contingency table.

Each of the following null hypotheses was tested by applying the Mann-Whitney U test to the distribution of students, making \(0,1,2,3,...\), errors of the type in question. The corresponding alternative hypothesis was that the first type of error exceeds the second type of error.

Hypotheses:

<table>
<thead>
<tr>
<th>German-group intralingual errors</th>
<th>Spanish-group intralingual errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish-group interlingual errors</td>
<td>German-group interlingual errors</td>
</tr>
<tr>
<td>Intralingual errors (both groups)</td>
<td>Interlingual errors (both groups)</td>
</tr>
</tbody>
</table>

Spanish group:

<table>
<thead>
<tr>
<th>Spanish interlingual errors</th>
<th>German interlingual errors</th>
</tr>
</thead>
</table>

German group:

<table>
<thead>
<tr>
<th>Spanish interlingual errors</th>
<th>German interlingual errors</th>
</tr>
</thead>
</table>

Both Spearman's rank difference coefficient, and Kendall's tau coefficient were calculated for the correlation of average number of errors per class in the eight classes studied.

Results.

The number of errors in each category for both groups, Spanish and German, are presented in the following tables.
### TABLE 1

**Spanish-group errors.**

<table>
<thead>
<tr>
<th>Grade</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
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<tbody>
<tr>
<td>Number of subjects</td>
<td>16</td>
<td>20</td>
<td>7</td>
<td>19</td>
<td>13</td>
<td>10</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Error type</td>
<td>Number of errors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of transfer</td>
<td>14</td>
<td>21</td>
<td>7</td>
<td>24</td>
<td>12</td>
<td>5</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Intralingual</td>
<td>10</td>
<td>30</td>
<td>14</td>
<td>46</td>
<td>22</td>
<td>9</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>Spanish interlingual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$E = G$</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>$E \neq G$</td>
<td>9</td>
<td>9</td>
<td>3</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>German interlingual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$E = S$</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>$E \neq S$</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Spanish German interlingual</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>2</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>4</td>
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</tr>
</tbody>
</table>
## TABLE 2

German-group errors.

<table>
<thead>
<tr>
<th>Error type</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
<th>Grade 13</th>
<th>Number of errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of transfer</td>
<td>25</td>
<td>10</td>
<td>25</td>
<td>8</td>
<td>18</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Intralingual</td>
<td>10</td>
<td>14</td>
<td>31</td>
<td>15</td>
<td>18</td>
<td>8</td>
<td>5</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Spanish interlingual</td>
<td>E = G</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>E ≠ G</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>German interlingual</td>
<td>C = S</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>C ≠ S</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Spanish-German</td>
<td>E = S</td>
<td>3</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>E ≠ S</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Number of subjects: 14 12 16 8 11 5 5 9
The hypothesis of mutual independence among language experience, English proficiency level, and type of error was rejected at the 5% level.

The null hypothesis that German-group intralingual errors equal Spanish-group intralingual errors was not rejected, the level of significance being 36%.

The hypothesis that Spanish-group interlingual errors exceed German-group interlingual errors was rejected. The alternative hypothesis, that Spanish-group interlingual errors exceed German-group interlingual errors was accepted at the 10% level.

The hypothesis that intralingual errors exceed interlingual errors was equally rejected. The alternative hypothesis that intralingual errors exceed interlingual errors was significant at the 15% level.

The hypothesis that in the Spanish group, Spanish interlingual errors exceed German interlingual errors was significant at the 5% level. However, the hypothesis that in the German group, Spanish interlingual errors exceed German interlingual errors had to be rejected (level of significance: 32%).

Spearman's rank difference coefficient $r_d$ and Kendall's tau coefficient $T$ gave the following results with respect to the correlation of average number of errors per class in the eight classes:

<table>
<thead>
<tr>
<th></th>
<th>$r_d$</th>
<th>$T$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intralingual</td>
<td>0.12</td>
<td>0.07</td>
</tr>
<tr>
<td>Interlingual</td>
<td>-0.52</td>
<td>-0.50</td>
</tr>
</tbody>
</table>

The decrease in interlingual errors was significant at the 10% level, based on a one-sided test.
Conclusions.

Several conclusions can be drawn from this investigation. With respect to the questions posited in the introduction of the study, the following information can now be given:

The study does not provide any evidence that the age of the learner - after age 10 - is a major factor which quantitatively affects interlingual errors. Because Dulay and Burt (in Tarone 1974) report no significant mother-tongue interference in their subjects (ages up to 9), and research on older subjects does provide evidence for mother-tongue interference, the possibility was considered that interlingual errors increase quantitatively as learners become older. However, this study shows that such an assumption is incorrect. Factors other than age seem to be responsible for variability in the occurrence of interlingual errors.

Taylor's study (1975) indicates that the stage of language learning influences the incidence of interlingual errors. The results from this investigation provide further evidence for this claim. Specifically, that at the initial stages learners rely extensively on their native languages, but as proficiency in the target language increases, they rely proportionately less on the mother-tongue system.

The fact that intralingual errors exceed interlingual errors at all grade levels, appears to indicate that learners use the information of the target language for hypothesizing about its rules, immediately after exposure to the new system. At all times, reliance
on the target language exceeds reliance on the previously known languages, a fact also reflected in the high incidence of "lack of transfer" errors. The decrease of intralingual errors probably corresponds to the mastering of rules which were not known earlier. The increase of intralingual errors seems to reflect the increased exposure to rules; until their correct application is learned, numerous errors occur. Once the rules and their distribution are mastered, errors decrease. LoCoco (1975a) found that a sudden increase in errors could always be related to the introduction of new rules in the classroom. We may not, therefore, link an increase of intralingual errors exclusively to the level of proficiency, but rather to additional exposure to target language rules. Increased proficiency is coupled with increased knowledge of rules and their distribution. This may bring about a decrease in intralingual errors.

Previous language experience also appears to be a factor which influences the occurrence of types of errors. Increased experience with languages seems to result in proportionately fewer interlingual errors in the learner's language. The more bilingual learner is possibly aware of the fact that reliance on one system may cause interference in the other system. He consequently relies less on the known languages, than the less bilingual learner. The less bilingual learner also tends to rely more on his stronger language, while in the more bilingual learner, reliance appears to be more evenly distributed between L1 and L2.
While the incidence of interlingual errors appears to be significantly influenced by the degree of bilingualism, this is not the case with intralingual errors.

The comparison of the results of this study with those of other foreign language acquisition studies leads to further important conclusions. The study provides support for Taylor's finding (1975) that increased proficiency in English does not qualitatively affect the kinds of errors which a learner makes. Kinds of errors committed by all learners tended to be very similar. Learning strategies appear to be employed in characteristically the same way. However, learners at different levels of proficiency, and with different language experience use the strategies in varying degrees, resulting in quantitative differences.

An interesting finding is that do omission only took place in questions. Except for one case, do was always provided in negative statements. It appeared in the form don't. Hatch (1974), and Cancino, Rosansky and Schumann (1974) suggest that don't may be learned as a unit. Some subjects in Hatch' study began using negative imperatives immediately with don't. But there was no evidence of do-support. Don't appeared to be more of a negative marker than a tense carrier.

Hakuta (1974) also reports certain patterns which appear to be learned as units. The findings in this study equally suggest that don't is learned as a unit which performs the function of negative marker.
Selinker, Swain, and Dumas (1975) propose the extension of the interlanguage hypothesis to children. Previously it had only been applied to adults. This hypothesis claims that the second-language speech differs from the mother-tongue, and from the target language in systematic ways, and that the forms produced by the learner are not random. The errors which learners produce reflect strategies common to all learners. The above mentioned investigators studied the speech of 7 year old L2 learners. L2 acquisition was non-simultaneous and occurred in the absence of native speaking peers of the target language. Their subjects were found to use the strategies of language transfer, overgeneralization of target language rules, and simplification.

The setting for this study was similar to that of Selinker, Swain, and Dumas, in that L3 acquisition was non-simultaneous with L1, and took place in the absence of native speaking peers of the target language. The errors of all learners, ages 10 through 19, reflected the same strategies of language transfer, overgeneralization, and simplification. This investigation then, provides further evidence that the interlanguage hypothesis applies to children, as well as to adults.

The assumption that strategies used in L3 acquisition are the same as those of L2 acquisition also proved to be correct. However, L2 and L3 acquisition cannot be claimed to equal L1 acquisition, since learners of all ages, and at all proficiency levels
employed the strategy of language transfer, which is absent in L1 acquisition. Further, production of negative statements in English followed a pattern that has been observed in other L2 learners, but which is not the pattern observed in learners of English as the first language. This suggests the possibility of common patterns of L2 structure acquisition.
APPENDIX.

Error categories and selected examples.

Lack of Transfer errors.

These are intralingual errors which occur when all languages involved have parallel rules.

Verb errors.

I. Errors with "to be".

Singular form of verb used with plural subject.

The two tables is brown.
The cookies is big.
We was in our sleeping bag.

Plural form of verb used with singular subject.

The stove are white.
The floor are clean.

(Context indicated that the error pertained to the verb, and not to the noun)

Copula omission.

The cat black.
My television on.

II. Auxiliary errors.

Auxiliary omission.

I going now.
We playing.

Wrong auxiliary form.

We was playing.
III. Participle errors.
Present tense for participle.
   The classes are begin.
   We have buy.
   They have eat.

IV. Tense errors.
Misuse of the past tense morpheme.
   She let them entered.
   Mrs. Smith could recognized the painter.
   The men told the policemen to opened the door.
Use of the present tense for the past tense.
   This morning John says to me.
   Last year I have fever.
   An attendant came and give us refreshments.
Use of the progressive tense for the past tense.
   Only my father was knowing Mexico.

Preposition errors.
Preposition omission.
   I don't want to arrive school late.
   We arrived the place.

Pronoun errors.
Pronoun omission.
   Do you have our passports? Yes, I have.

Adjective errors.
Adjective omission.
That's a very problem.
Use of adverb for adjective.
We saw the earth move in the exactly place.
Determiner errors.

Article omission.
It is Beechcraft Duke.
Negrín is nice dog.

Singular demonstrative for plural demonstrative.
This pencils are expensive.
This are white and orange.
Noun errors.

Singular noun for plural noun.
Here are our boarding pass.
Two teacher.
I have a diagram with instruction.

Intralingual errors.
Verb errors.
Omission of third person singular s.
It cost five pesos.
It don't cause trouble.
He give you presents.
John come today.

Wrong verb form.
I says to my mother.
I are better
Regularization of a verb.

They teached me.
I catched four fish.

Use of verb in past tense after did.
She didn't found me.

Pronoun errors.
He used for she.
His used for her.
Their used for they.

Preposition errors.

At required.
Paul and Mary arrive to the airport.
My dog goes to sleep to 9 o'clock.
On the end, the fish died.

On required.
My kitchen is in the right.
At my vacation.

Of required.
The door for the living room.
We saw fish for many colors.

To required.
Can you come this afternoon at a lunch?
We went at the movies to see a good film.

In required.
And at the morning it was cold.
Determiner errors.

A electric stove.

A appointment.

A other fish.

Lexical confusion.

Words.

Where dog do you want?
The restaurant who I go.
The place who we swam.

One reason because we are not good students is...

They and there confusion.

They are many cookies.

There are very comfortable.

Miscellaneous.

There is too one refrigerator. (also)

He told us much stories.

My cat is a woman. (female)

It is better to walk when to fly.

The man cried. (yelled)

You say me. (tell)

Spanish interference errors.

Verb errors.

Wrong verb.

She has 12 years. (Tiene 12 años)
It has five meters long. (Tiene cinco metros de largo)
My nephews made me a party. (Mis sobrinos me hicieron una fiesta)
The poor have to pass cold. (Los pobres tienen que pasar frío)
Omission of infinitive marker to.
I think it is better go to school. (Creo que es mejor ir a la escuela)
I think it is better stay here. (Creo que es mejor quedarse aquí)
Auxiliary omission.
I born in Mexico City. (Nací en México)
Preposition errors.
Wrong preposition.
The food is in the table. (La comida está en la mesa)
Unnecessary preposition.
Peter is beside of the door. (Pedro está junto a la puerta)
She telephones to the police. (Telefona a la policía)
I called to the hospital. (Llamé al hospital)
I am a boy of 15 years old. (Soy un muchacho de 15 años)
She is an inspector from schools. (Es una inspectora de escuelas)
The car from my father. (El coche de mi padre)
Pronoun errors.
Omission of subject pronoun.
Have three sisters. (Tengo tres hermanas)
I like him, is very nice. (Me gusta, es muy simpático)
Yes, here (it) is. (Sí, aquí está)
He went to see who (it) was. (Fue a ver quién era)

**Adverb errors.**

**Adverb omission.**

Is the doctor? (there). (¿Está el doctor?)

**Adjective errors.**

**Unnecessary adjective.**

I have a two fish. (Tengo unos dos pescados)

**Adjective omission.**

Micky is three years. (Micky tiene tres años)

**Determiner errors.**

**Unnecessary article.**

The last Saturday... (El último sábado)

He sleeps all the day. (Duerme todo el día)

They play all the afternoon. (Juegan toda la tarde)

**Noun errors.**

**Singular noun for plural noun.**

She was one and a half month old. (Tenía mes y medio)

**Wrong plural.**

Elephantes. (Elefantes)

**False cognates.**

The boy divided an island. (saw) (El muchacho dividió una isla)

If we were in such a case for one day... (situation) (Si estuvieramos en tal caso...)

The actual president. (present) (El presidente actual)

**Double negatives.**

Don't bring me nothing. (No me traigas nada)
Made-up words.
Equipe (team). (Equipo)
Descalificated (disqualified). (Descalificado)
The gigant (giant). (El gigante)

German interference errors.
Verb errors.
Wrong verb.
In the morning we stand up (get up). (Am Morgen steh wir auf)
After she had dressed the sheet...(put on). (Nachdem sie das Laken angezogen hatte...)
We musted work about 15 minutes. (had to). (Wir mussten ungefähr 15 Minuten arbeiten)
I must make my homework. (Ich muss meine Hausarbeit machen)
I like to go to wander. (Ich mag wandern gehn)
False cognates.
I don't will arrive late. (want to). (Ich will nicht spät ankommen)
My do will food. (Mein Hund will essen)
They never became anything from you. (received). (Sie haben nie etwas von Dir bekommen)
All became the greatest scare. (Alle bekamen den größten Schrecken)
Wrong tense. Compound past for simple past.
The first day we have been to Cozumel. (we went)
(Am ersten Tag sind wir in Cozumel gewesen)
Next day we are gone to swim. (we went swimming)
(Am nächsten Tag sind wir schwimmen gegangen)
Because it rained, we have slept in the hotel. (slept)
(Weil es regnete haben wir im Hotel geschlafen)
At 7 o'clock we have eaten cake. (ate)
(Um sieben haben wir Kuchen gegessen)

**Preposition errors.**

Preposition omission.
I was born the 31st. July. (Ich bin am 31ten. Juli geboren)
The machine is full plates. (Die Maschine ist voller Teller)

**Determiner errors.**

Addition of determiner.
The maid is a very lazy. (Die Magd ist eine grosse Faule)

**Adverb errors.**

It isn't so interesting as American football.
(Es ist nicht so interessant wie Amerikanisches-fussball)
It is so pretty a car. (Es ist so ein schönes Auto)

**Word order errors.**

Now is Tüfeli one year old. (Jetzt ist Tüfeli ein Jahr alt)
I want not work. (Ich möchte nicht arbeiten)
Here is it. (Hier ist es)

**Spanish-German interference errors.**

Do omission.
When he comes?
You have our passports?
How much costs it?
What like you?
Pronoun errors.
I want ma many things. (Me deseo muchas cosas)

(Ich wünsche mir viele Sachen)
The only that has color... (El único que tiene color...)

(Der Einzige der Farbe hat...)
She is electric (the stove). (Es eléctrica)

(Se ist elektrisch)
He is on the left (the refrigerator). (Está a la izquierda)

(Se ist rechts)
Do you have all? (everything). (¿Tienes todo?)

(Hast Du alles?)

Preposition errors.
Preposition omission.
After trying it some minutes. (Después de tratarlo unos minutos)

(Nachdem er es einige Minuten versuchte)
Wrong preposition.
In my last holidays I went to Costa Rica. (En mis últimas...)

(In meinen letzten...)
Preposition addition.
I entered in a Kung Fu school. (Entré en una escuela...)

(Ich bin in eine Schule eingetreten)

Adjective errors.
Unnecessary adjective and noun agreement.
He heard what the others clients said. (Oyó lo que los otros clientes dijeron)

(Se hörte was die anderen Kunden sagten)
The hotels have big swimming pools. (Los hoteles tienen albercas grandes)

(Die Hotels haben grosse Schwimmbasins)

**Determiner errors.**

Determiner omission.

My mother is teacher. (Mi madre es profesora)

(Meine Mutter ist Lehrerin)

Determiner addition.

She is around the 70 years old. (Anda por los 70 años)

(Sie ist um die 70 Jahre alt)

**Noun errors.**

Plural noun for singular noun.

My last vacations. (Mis últimas vacaciones)

(Meine letzten Ferien)
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