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ABSTRACT

A study examined the acquisition of negation in English as a Second Language in a 4-year-old Salvadoran girl, a native speaker of Spanish. Specifically, the study looked for evidence of language transfer in bilingual acquisition and the direction of that transfer (Spanish to English, English to Spanish). Over 5 months, spontaneous speech (55 samples) was recorded in several natural settings (school, home, and restaurant) and an imitation task method was used to elicit additional language samples (n=100). The syntactic structures studied were negative-verb sequence, "do" inclusion in the verb form, and sentence subject omission. These data were also compared with data from a previous study of monolinguals and bilinguals of the same age. Results indicate that in the case of the first two structures examined, the child had internalized the rules of Spanish negation well enough to influence the use of Spanish negative structures in her English constructions. In the case of sentence subject omission, findings did not indicate a Spanish influence, but rather that she had acquired enough English rules on sentence subject inclusion to influence her use of this structure in both Spanish and English, suggesting a two-way transfer effect. (MSE)

Language Transfer in the Acquisition of Negation: The Case of a Young Salvadoran Child

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Language Transfer in the Acquisition of Negation: The Case of a Young Salvadoran Child

From the late sixties until about the late seventies there was a lack of prestige for the concept of language transfer. This loss is believed to have been a result of the impact of Dulay & Burt's (1972) important work on developmental language learning. In their work, the researchers made two convincing points: 1) that the process of second language acquisition could be compared to the developmental nature of first language acquisition (L2=L1 Hypothesis) and 2) that language transfer as explained by behavioristic theory (i.e., native language interference) was not a significant factor in second language learning. The interest in the nature of second language learning that continued after the publication of Dulay and Burt's work maintained a steady flow of research on this process, much of which produced capricious evidence of second language learning which could not be explained strictly by developmental processes. This evidence resulted in a renewed interest in the concept of language transfer. Today's language transfer research, having recognized the shortsightedness of the behavioristic, first language interference view of language learning, seeks to investigate transfer within a new and more objective theoretical framework.

Definition of Language Transfer

The recent language acquisition literature refers to language transfer as the interaction and effects of learning in two languages (Garcia, 1983). This researcher points out that to better understand language transfer, today's research should focus, not on the "negative" effects of one language upon the other, but on an objective

search for effects of the two languages upon each other. He also suggests that language transfer can be studied in various bilingual situations; one where the second language is introduced after the first has already been acquired i.e., during second language acquisition, and where the two languages are developing simultaneously, i.e., during bilingual acquisition. He further suggests that language transfer could probably be best studied during early childhood (ages two to five), the ages during which the most significant changes in language development occur (Garcia, 1983).

The Garcia & Madrid Study on Negation during Bilingual Acquisition

Garcia & Madrid (1981, 1983) studied the negation of forty Mexican American bilingual children between the ages of 3 and 6. The researchers examined errors under "forced conditions" that asked the subjects to use negative syntactic structures (they elicited speech by engaging the child in conversation and question and answer that required negative responses). In their study they attempted to isolate qualitative differences in negative constructions cross-sectionally (across age), with comparisons between the English constructions of the 40 Spanish/English bilinguals and those of matched monolingual English speaking children. There were three dependent measures: (a) negative agent-verb sequence (b) Do inclusion and (c) sentence subect omission. The research tested two contrasting theoretical positions - language transfer and the L2=L1 Hypothesis. The results were that English monolinguals scored diffrently than bilinguals across the three dependent variables, in English. There was evidence that Spanish negative sturctures are used in English negative constructions, but no evidence of English structures in

Spanish. The researchers concluded that, in view of "transference" for Spanish to English only, their results supported a "partial" transfer hypothesis.

Purpose of this Study

The present study attempted to objectively investigate the interaction and effects of learning two languages by examining the negation acquisition of Monica, a Salvadoran (Spanish/English) bilingual child between the ages 3.8-4.1 (three years, eight months and four years, one month). The study sought to ascertain if the phenomenon of language transfer exists, and to look for evidence of mutual language effects. The methodology employed replicated, in part, that of Garcia & Madrid (1981) and also borrowed from other work in second language acquisition research (Cancino, Rosansky & Schumann, 1979).

The following research questions guided the study:

1) Is there evidence indicating that language transfer plays a role in bilingual acquisition?
2) Given the child's bilingual characteristics during the period of the study, will language transfer be evident as Spanish to English influence only? Or
3) Will there be evidence of English to Spanish influence as well?

Selection of Subject

The following criteria were established for selecting a subject for this study: a) that the child be at the early stages of language development, between the ages of 2 and 5; b) that the child have an outgoing personality, that she/he liked to talk not only with children but with adults; 3) that the child be exposed to and be learning two

languages, English and Spanish, at the same time.

The information necessary for the selection of the subject was obtained from the subject's mother and her teachers, and through classroom observations which were conducted for one week prior to the beginning of the study. The subject selected was a 3.8 year-old Salvadoran child. This child, M, was born in the United States in a home where Spanish was the primary language. In addition to Spanish, she heard some English from an eight year-old brother and via television. At age three M was enrolled in preschool in a predominantly Hispanic neighborhood in Northwest Washington, D.C. Her classroom had a mix of Anglo, American Black, Spanish-speaking Carribbean and Central American children. About half of the children were native Spanish-speakers. The school's curriculum was in English. There were however instructional activities in Spanish that were conducted by a full-time Spanish-speaking teaching assistant. According to both of her teachers, M was the "model" bilingual child. She spoke Spanish, her native language, very well, but she also used English enthusiastically.

From the information gathered prior to the study, it was established that M was a Spanish-dominant bilingual who was in the process of acquiring English and Spanish at the same time.

Data Collection

To examine the M's untutored acquisition of negation, language samples were collected by recording spontaneous speech produced in several natural settings. In addition, because the focus was on studying specific syntatic structures which the child may not have produced in spontaneous speech, the imitation task method was utilized to elicit additional language samples.

All the data were collected within a five-month period. There were ten school visits, two home visits and one trip to a restaurant, for a total of 30 hours of site and about 10 hours of taped speech. The imitation tasks were conducted in school twice, once in Month 3 and once in the early part of Month 5. Each lasted about forty minutes. All of the data were taped. In addition, notes were taken of all interactions with the child. The data were transcribed the same week they were collected. In Month 4, the tapes were twice reviewed to verify the accuracy of the transcriptions. Utterances that were not clear (usually one word in an utterance) were transcribed as close to the pronunciation as possible, with a notation in parenthesis of what the subect might have meant. If an utterance or a portion of an utterance was unclear after the second review, it was disregarded. In the elicited speech, if the procedures for imitation were not followed by the subject, the imitated utterance was excluded.

Data Analysis

The three syntactic structures studied were: 1) negative-verb (NEG-verb) sequence, 2) DO inclusion, and 3) sentence subject omission. These were selected by Garcia & Madrid because the differences between these English and Spanish structures are such that it would be easy to detect the use of structures of one language in the other language.

Negative-verb (NEG-verb) sequence:

In English the negator is NOT; in Spanish the negator is NO. In English the negator is placed between the auxiliary and the main verb (Aux + NOT + main verb). In Spanish there is strictly preverbal negation. In other words, the negator NO is placed before both the auxiliary and main verbs (NO + Aux + main verb). If a NOT form appeared, therefore, in Spanish speech samples, this would indicate an English structure being imposed on Spanish.

DO Inclusion:

In English negation the Aux DO is inserted wherever the affirmative form of a sentence does not contain an auxiliary verb, e.g. - They walk --- They do not walk. In Spanish the Aux DO is nonexistent. Therefore, the appearance of a DO form, or a Spanish word which appears to be a translation for DO, i.e., hacer (see Garcia, 1983, p. 110), would also indicate an English structure imposed on Spanish.

Sentence subject omission:

Sentence subject omission is acceptable Spanish syntax (common but not restricted to negation), but is ungrammatical in English. For example, the two sentences, Yo estudio bastante and Estudio bastante (I study a lot) are both grammatical. This is in direct

contrast with English where, with the exception of command sentences, sentence subjects are always syntactically required. In this case, sentence subject omission in English could mean that Spanish was influencing English speech.

For the purposes of summarizing the data, and to conform with Garcia & Madrid's method of reporting their results, English constructions containing English structure (Aux + Not + MV) were labeled "correct" forms. English constructions containing Spanish structures (preverbal negation) were labeled "incorrect". Both were summarized in the tables as "percent correct" and "percent incorrect". In the Spanish analysis, the reverse applied. The DO Inclusion and Subject Omission variables were summarized as "percent inclusion/omission" and percent omission/inclusion, respectively. (For detailed discussions of English and Spanish negative syntactic rules, See Akmajian, 1980; Hadlick, 1971; and Stockwell, Bowen & Martin 1965.)

Comparison Between Subjects

To make comparisons between bilingual and monolingual language acquisition, it was necessary that the subjects be of similar age and language characteristics. In this study, comparisons were made with the 3 and 4-year old subjects in Garcia & Madrid, since these groups of children more closely approximated M's age. Some reference was also made to MLU, a measure of language complexity which as developed by Brown (1973) to compare language production at the early stages of child language acquisition. It has been used in first language negation studies (Klima & Bellugi, 1966) and in Garcia"s (1983) bilingual studies.

M's Spanish MLU was 4.6. Her English MLU was 4.3 English and

Spanish MLUs are not, however, directly comparable due to the difference in the morpheme structure of the languages. Necessary comparisons between the two languages had to keep this constraint in mind.

Findings

The research inquired as to whether there would be evidence of language transfer and if so, the direction of the transfer effect, i.e., English to Spanish, or Spanish to English transfer. There were 55 English utterances from spontaneous speech and about 100 utterances from English elicited speech (imitations) selected for analysis. In Spanish, there were 59 utterances from spontaneous speech samples selected for analysis and no samples from elicited speech. The findings provided evidence supporting transfer in both directions.

Variable 1 - NEG-Verb Sequence (Table 1)

ENGLISH DATA. In the English spontaneous speech, M used English NEG-verb (correct) sequence 1% of the time, and 99% of the time she used Spanish NEG-verb (incorrect) sequence. That is, she used the negator NO before the both auxiliary, if the context required one, and main verbs. In the English elicited speech she produced English NEG-verb (correct) sequence 40% of the time and Spanish NEG-verb (incorrect) sequence 60% of the time.

SPANISH DATA. The Spanish data showed that the Neg-verb sequence, NO verb, was (correctly) produced 100% of the time.

COMPARISONS WITH OTHER SUBJECTS.

The 3 and 4-year old monolingual English-speaking children in the Garcia & Madrid study used (correct) English NEG-verb sequence, 76% & 95% of the time, respectively (they produced incorrect sequences 24% and 5%). The bilingual children in this same study produced (correct)

NEG-Verb Sequence Results

Monica (1984)	Garcia & Madrid's (1981) Subjects
(Aux)-Not-Main Verb	
English (Spontaneous Speech)	English (Elicited Speech)
% Correct 1	English Monolinguals:
% Incorrect 99 (99% Spanish sequence)	3 yr olds: % Correct 76; % Incorrect 24
English (Elicited Speech)	4 yr olds: % Correct 95; % Incorrect 5
% Correct 40	English (Elicited Speech)
% Incorrect 60 (60% Spanish sequence)	Bilinguals:
	3 yr olds: % Correct 25; % Incorrect 75
	4 yr olds: % Correct 55; % Incorrect 45
No-(Aux)-Main Verb	
Spanish (Spontaneous Speech)	Spanish (Elicited Speech)
% Correct 100	Bilingulas:
% Incorrect 0	3 yr olds: % Correct 100; % Incorrect 0
	4 yr olds: % Correct 100; % Incorrect 0

English sequences 25% and 55% of the time (they produced Spanish sequences 75% and 45% of the time). In the Spanish data, Spanish NEG-verb sequence was (correctly) produced by the bilinguals 100% of the time at ages 3 and 4.

Variable 2 - DO Inclusion (Table 2)

ENGLISH DATA. In English spontaneous speech, M did not use any form of DO. That is, she used (correct) English structure 0% of the time (omitted DO 100% of the time). In the imitated constructions, she included DO only 20% of the time (omitted it 80% of the time).

SPANISH DATA. The Spanish data contained no incidences of DO nor any translated (Spanish) DO forms.

COMPARISON WITH OTHER SUBJECTS

Garcia & Madrid's 3 and 4-year old English monolingual subjects used DO in their English negative sentences 40% and 60% (omitted them 60% and 40%) of the time, respectively. Their bilingual subjects used DO 0% and 15% (omitted them 100% and 85%) of the time, respectively. Their Spanish constructions contained no incidences (0%) of the DO tranlation, hacer.

Variable 3 - Sentence Subject Omission (Table 3)

ENGLISH DATA. The English data showed that M omitted sentence subjects 10% of the time in spontaneous speech and 0% in elicited speech. That is, she included sentence subjects 90% and 100% of the time, respectively.

SPANISH DATA. In the Spanish speech samples, M omitted sentence subjects in her negative constructions 40% of the time and included them 60% of the time.

COMPARISON WITH OTHER SUBJECTS.

In the Garcia & Madrid study the 3 and 4-year old English

TABLE 2

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DO Inclusion Results

Monica (1984)	Garcia & Madrid's (1981) Subjects
Do and Do forms, don't do not, didn't, did not, etc.	
English (Spontaneous Speech)	English (Elicited Speech)
	English Monolinguals:
	3 yr olds / 4 yr olds
% Inclusion 0	% Inclusion 40 / 60
% Omission 100	% Omission 60 / 40
English (Elicited Speech)	English (Elicited Speech)
	Bilinguals:
	3 yr olds / 4 yr olds
% Inclusion 20	% Inclusion 0 / 15
% Omission 80	% Omission 100 / 85
Do or Spanish translated form, Hacer *	
Spanish Spontaneous Speech)	Spanish (Elicited Speech)
	Bilinguals:
	3 yr olds / 4 yr olds
% Inclusion 0	% Inclusion 0 / 0
% Omission 100	% Omission 100 / 100

TABLE 3

Sentence Subject Omission Results

Monica (1984)		Garcia & Madrid's (1981) Subjects		
Noun phrase in subject position				
English (Spontaneous Speech)		English (Elicited Speech)		
		English Monolinguals:	3 yr olds	4 yr olds
% Omission	10	% Omission	60	10
% Inclusion	90	% Inclusion	40	90
English (Elicited Speech)		English (Elicited Speech)		
		Bilinguals:	3 yr olds	4 yr olds
% Omission	0	% Omission	100	70
% Inclusion	100	% Inclusion	0	30
Noun phrase in subject position				
Spanish (Spontaneous Speech)		Spanish (Elicited Speech)		
		Bilinguals:	3 yr olds	4 yr olds
% Omission	40	% Omission	100	100
% Inclusion	60	% Inclusion	0	0

monolinguals omitted sentence subjects 60% and 10% of the time. The bilinguals omitted sentence subjects 100% and 70% of the time. In Spanish, the bilinguals omitted sentence subjects 100% at ages 3 and 4.

Additional Analysis of Sentence Subject Omission (Table 4)

Because these findings were quite contradictory to the previous findings of Garcia & Madrid (1981), this structure was further studied in a sample of fifty non-negative utterances, 25 from sample language collected during the initial data collection session and 25 from sample language collected during the last session, and were compared to the approximately 50 negative utterances selected for analysis in each language. The expectation was that if M included rather than omitted, sentence subjects in her negative costructions, she would also include them in her other constructions. This expectation proved correct. The data showed that M included sentence subjects in Spanish 58% (and omitted them 42%) of the time. This was close to the 60% inclusion (40% omission) in the negative constructions. In English she included sentence subjects 78% (and omitted them 22%) of the time. This was not as close to the 90% inclusion (10% omission) in the negative utterances. Still, these results revealed that M more frequently included, rather than omitted, sentences subjects, and that she seemed to do this with more or less the same consistency exibited in the production of NEG-verb sequence and DO Inclusion.

Discussion of Findings

NEG-verb sequence:

A salient finding in the analysis of NEG-verb sequence was the consistency with which M used NO + Verb. It might have been expected

TABLE 4

Sentence Subject Omission in Non Negative Constructions
Results

Monica (1984)

Noun phrase in subject position

English		Spanish	
% Omission	22	% Omission	42
% Inclusion	78	% Inclusion	58

that M would produce more of these sequences, since she was more proficient in Spanish, but since she had already been exposed to English for eight months (for one year by the end of the study period) the near 100% use of NO + Verb was impressive. M's persistent NO + Verb forms can be contrasted with the production of Garcia & Madrid's English monolinguals, who consistently used (Aux) + NOT + Main Verb (76%-95%). M's Spanish negation (100% NO + Verb) was more pronounced than Garcia & Madrid's bilinguals, who used NO + Verb 55% and 75% of the time.

An informal qualitative analysis of the types of negative constructions produced by M indicated that her negation was indeed characteristically Spanish. A quick comparison of her negation with that of other English monolinguals (Klima & Bellugi, 1966) validated this observation. For example, in comparing M, at MLU 4.3 and Klima & Bellugi's subjects at MLU 4.0, some significant differences were noted. One difference was in the use of the negator. The English monolinguals went through a brief period of using the negator NO (NO + Verb) then quickly proceeded to the negator NOT. On the other hand, M's use of NO persisted throughout the five months of the study. Another difference was in the use of auxiliary verbs. While the Klima & Bellugi subjects at MLU 4.0 were regularly using the auxiliaries, Do, Will, Can, and others, including their contracted forms, M's one and only auxiliary at MLU 4.3 was Can (e.g., I no can do this one).

The results of the Neg-verb sequence seemed to indicate that M's negation was more like that of bilinguals than that of English monolingual children. This contrast of English monolingual and bilingual language, was interpreted as evidence supporting language transfer from Spanish to English.

DO inclusion:

With respect to DO inclusion, M also had a very consistent pattern of production. The 100% omission of DO forms in the spontaneous speech and the 80% omission in elicited speech at first seemed extreme because, as already mentioned, M had had some exposure to English. However, after examining Garcia & Madrid's data and noting that their 3 and 4-year old bilinguals omitted DO up to 85% of the time, and the monolinguals about half of the time, M's production no longer seemed so extreme.

The high frequency of DO omission seemed to indicate, instead, that perhaps it is difficult for all children to acquire DO insertion. Yet, there are other English monolingual data that provide a number of examples of early DO inclusions. In Klima & Bellugi (1966) subjects between ages 2.4-4.2, and MLUs between 2.0 and 4.0 regularly used Don't and Didn't. M, on the other hand, between ages 3.8-4.1 and an MLU roughly at 4.3 (slightly higher than Klima and Bellugi's subjects) almost completely avoided using DO. The higher frequency of DO omissions in M's English negative constructions, as compared to English monolinguals, also provided a strong suggestion of transfer from Spanish to English.

Subject omission:

As mentioned earlier, the occurence of subject omission in Spanish is not limited to negation. Garcia & Madrid predicted that in their subjects' production subject omission would predominate and their prediction was supported by their data. In this study this did not occur even though M was a Spanish-dominant bilingual. M included sentence subjects in her negative constructions in English almost all the time (90%), and in Spanish more than half of the time (60%).

These results hinted that the inclusion of subjects in the negative English, as well as negative Spanish constructions could be a result of English influence on Spanish. The analysis of non-negative constructions, revealing a similar tendency towards subject inclusion in both languages, strengthened the evidence of an English influence on Spanish. Because the results of both sentence subject analyses corroborated, they were interpreted as suggesting an English to Spanish influence.

Summary of Findings

The results of the first two variables strongly suggested that M had internalized the rules of Spanish negation well enough to influence the use of Spanish negative structures in her English constructions. With regards to the third variable, subject omission, the findings did not indicate Spanish influence. Instead, they indicated that M appeared to have acquired English rules on sentence subjects inclusion well enough, and that this seem to have influenced the use of this structure in her English as well as Spanish constructions. The findings of this investigation on negation development during bilingual acquisition provided evidence that, in fact, there was a two-way transfer effect.

Some Insights about Developmental Language Learning

Dulay and Burt (1972) proposed that the acquisition of a new language is mainly attributable to developmental processes, and not to language transfer. This theoretical position would predict that language errors of a bilingual child acquiring English as a second language would be the same as the errors of a native English speaker. In considering how developmental theory applied to M's language acquisition, the following observations were made. It was supposed

that if developmental processes were assumed to be the only factor involved in M's acquisition, then the persistent preverbal negation and avoiance of Do, would not have been so consistent. Rather, one would have expected many more occurences of Not, Don't, Can't, Won't etc. Additionally, if developmental processes alone accounted for M's language development, then her tendency to include sentence subjects would not have predominated in neither her English, nor her Spanish constructions. Since the findings demonstrated opposite results, it therefore cannot be said that developmental processes alone accounted for M's bilingual acqusition.

These observations should not be interpreted as denying developmental language learning. In fact, the sample data does provide some examples of developmental processes. For instance, there were a number of errors (ungrammatical English) that were not reflective of Spanish structure, that could have very well resembled errors of English monolingual speakers. Evidence of developmental language learning could also be noted in strategies M used to manipulate certain language. The important thing, however, is that these were not the only processes observed. As the data presented here has shown, there were <u>other</u> additional factors involved during bilingual acquisition which could clearly be attributed to transfer phenomena.

<u>Contributions of this Study</u>

This study attempted to examine objectively and comprehensively the process of bilingual acquisition. There were careful pre-study observations of the environment where data collection was to take place and careful application of established criteria for selecting the bilingual subject. The reseacher also took advantage of data

collection and analysis methods that have been previously used successfully which facilitated the collection of sufficient samples of the two languages and helped make comparisons from which valid inferences about language transfer could be made.

The study was, however, not without limitations. Data was collected for only five months. A 6 to 9 month study would have perhaps produced more samples of negation which could have made the findings stronger. It would have also been desirable to make the bilingual/monolingual comparisons with a monolingual child in the same classroom. Time constraints however, made it impossible to collect two sets of data at the same time. Time constraints also prevented the use of imitation tasks to collect Spanish data.

In transfer studies it is also essential to consider structural differences between the languages, age and level of bilingual development, among other factors. There are two other factors that appear to be important and that needed to be examined in this study. One is the context in which language is produced; the other is the language style of the particular language group under study. Although not examined closely, it is possible that school vs. home contexts, and mode of expression in Salvadoran Spanish could have had some effect in the subject's inclusion/omission of sentence subject.

This study, therefore, suggests several productive areas for further research. It is offered as a contribution to the growing database on bilingual acquisition, specifically to that dealing with language transfer.

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