# From parental attitudes to input conditions <br> Spanish-English bilingual development in Toronto 

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Research shows correlations between proficiency and language attitudes. Other studies associate performance in young bilinguals more strongly with adult language input and practice at home than with individual attitudes in youth. No studies, however, have examined how attitudes and family practice are implicated in the linguistic development of bilingual children. This study examines (1) the interplay between attitudinal and objective factors in setting the input conditions relevant for child bilingual acquisition; (2) how parental attitudes and community context shape home language practices and input conditions; and (3) how input conditions determine bilingual proficiency and degree of morphosyntactic transfer in young bilinguals. Twenty three bilingual children participated in the study. Children completed an elicited narrative and a word order task to assess the extent of transfer. They were asked to repeat sentences with clitics in reconstruction environments. If object pronoun linearization was vulnerable to transfer, children with stronger English dominance were expected to favor postverbal positioning. Results show strong correlation between family's attitudes to Spanish and bilingualism, but only moderate association between these and language practice. The most important difference in terms of dominance between the children related to onset of bilingualism. Results from the repetition task show a tendency by bilinguals to reposition preverbal pronouns as postverbal, a pattern not attested among monolinguals, and a lesser degree of the preverbal pattern. The simultaneous bilinguals favor the predicted transfer pattern more strongly, and also show high rates of pronoun omissions. These results suggest that input conditions are the primary factor in language maintenance in young bilinguals.

1. Introduction

This study examines how Spanish-English bilingual children are able to inherit and retain their parents' minority language (Spanish) in an English-dominant
context. The study of language maintenance in a minority language setting has demonstrated the relevance of both external, community-level factors such as demographic characteristics of the community, language policies, and subjective, as well as that of personal level-factors including cultural identity, solidarity and relative prestige of the language variety. This paper aims to examine how external and internal factors jointly determine the parental practices that support or hinder language transmission.

Some studies reveal general associations between bilingual proficiency and instrumental and integrative attitudes towards the minority language in adult bilinguals (e.g., Baker 1992; Coté and Clement 1994; Pieras-Guasp 2002). Other studies link performance in young bilinguals more to adult language input and practice at home than with individual attitudes towards the language and bilingualism (e.g., Hakuta and D'Andrea 1992).

In this study, we examine language transmission and language retention in a group of seventeen Spanish-speaking immigrant families in Toronto, Ontario. We seek to explore the extent of retention in simultaneous and sequential bilingual children, and what variables determine their language dominance and their performance on several measures of Spanish ability, their parents' attitudes and language practices at home, and what the children themselves think of their bilingual abilities and environments.

In Section 2 we summarize the literatures on bilingual acquisition, language maintenance and shift and family language transmission. Section 3 presents the bilingual families in our study, their social context, and the interview methods employed. Section 4 discusses results on children's abilities and language dominance and on family attitudes and practices, and finally, children's own perceptions and attitudes about their bilingual circumstances. Section 5 summarizes our observations and presents our proposal.

## 2. Language transmission in bilingual children

2.1 Simultaneous and sequential bilingual acquisition

How are children able to grow up in two languages? The two main routes into childhood bilingualism are sequential and simultaneous acquisition. Simultaneous bilingual acquisition refers to the acquisition of two languages consequently during the period of primary linguistic development (birth to 3;0). Bilingual children can acquire both languages autonomously from the beginning of the preverbal stage, and are fundamentally comparable to monolingual peers in terms of rates and patterns of development (e.g., De Houwer 1994; Grosjean

1989; Meisel 2001; Schlyter 1993). However, as Grosjean (1989) points out, autonomy in bilingual development does not mean that simultaneous bilinguals are two monolinguals in one. Although both languages develop independently, there is always a degree of interaction between both languages (e.g., Müller and Hulk 2001; Müller 2003).

Sequential or successive bilingualism, also known as child second language (L2) acquisition, refers to the acquisition of two languages after the age of 3;0 (e.g., Grosjean 1989; MacLaughlin 1978; Romaine 1995). The primary question is to what extent these bilingual children are like adult L2 learners or like simultaneous bilinguals. Sequential child bilinguals often show instances of transfer from the second or dominant language and distinctive patterns of development from monolingual peers.

Although most authors agree on a cut-off point ending at the age of 3;0 to differentiate simultaneous versus sequential bilingualism, age of onset of acquisition does not condition the degree of bilingual development of the child (e.g., Grosjean 1989). Within bilingual populations, there is a wide range of variation of the relative dominance and acquired abilities in each of the languages. Socio-cultural and linguistic factors such as motivation, parental language use, educational access and length of exposure to each language are important determinants in bilingual dominance and attainment (e.g., Hakuta and D'Andrea 1992; Grosjean 1989; Jia 1998). In situations where the input available in one language is reduced, the less accessible language - often the minority family language - develops more slowly and bilinguals show patterns of transfer and difficulties sometimes comparable to those of L2 learners (e.g., Cuza 2010; Schlyter 1993).

Many bilinguals within minority language communities do not develop full competence in both. This is a common scenario for Spanish heritage speakers in the US and Canada who show incomplete acquisition of their first language in areas such as tense and aspect (e.g., Montrul 2002; Potowski 2005; Silva-Corvalán 1994, 2003; Zentella 1997), gender agreement (e.g., Montrul and Potowski 2008) or knowledge of morphosyntactic and semantic features (e.g., Montrul 2005). These authors primarily attribute heritage language incompleteness to insufficient exposure to the home language.

The success of simultaneous bilingual children at bilingual development is an argument for the robustness of the language acquisition device under conditions of reduced input (e.g., Paradis and Genesee 1996). However, at some point, when sharing the input time in one language approaches the limits of the capabilities of the system, acquisition is placed at risk. Contra Meisel (2007a), who defines bilingual success as full convergence with two first languages, we adopt a broader notion of bilingual success as the attainment of some degree of fluency in both languages, even if development is asymmetric to the extent that it results
in incomplete acquisition in the language that is weaker in development or less preferred in use. The question we ask is what conditions and practices at home support successful bilingual development, when the outside environment offers limited support.

### 2.2 Language maintenance and shift in bilingual communities

Traditionally, language attitudes (i.e., favorable or unfavorable dispositions to a language variety or to bilingualism) have been recognized as an influential variable in language maintenance or shift in minority language communities (e.g., Atzen 1988; Lambert 2008; López-Morales 1993; Romaine 1995). The extent of retention of the minority language depends both on objective and subjective factors (e.g., Weinreich 1974). While external factors such as demographic density, endogamy, economic situation of the subgroup, and governmental policy are important determinants of language maintenance, one can argue that family transmission practices are equally fundamental. However, little is known to what extent the attitudes and beliefs specifically shape family language transmission.

For Hispanic families in Western Canada (Guardado in press), the crucial variables favoring the maintenance of the minority language may be cultural awareness and familism (family ties and communication). Guardado found that the level of cultural awareness was directly related to the level of cultural identity and commitment to the maintenance of the home language among Spanishspeaking families in Vancouver. He concludes that the most culturally aware immigrant families are more likely to raise their children bilingual and to preserve strong cultural ties (Guardado in press: 11).

So, what is the basis of extended family orientation or familismo? Family orientation is probably an expression of the more general notion of ethnolinguistic vitality. Perception of ethnolingulistic vitality is a related but different construct from language attitudes. Vitality refers to the beliefs about a group that makes it likely to behave as a distinctive and active collective entity in inter-group relations (e.g., Bourhis Giles and Rosenthal 1981; Giles, Bourhis and Taylor 1977). One could have positive beliefs about the minority language, but not engage in the relevant language practices if one believes that the ethnolinguistic group is not likely to remain distinct. Results on the predictive power of ethnolinguistic vitality are mixed (e.g., Köpke 2004). For instance, Yagmur, de Bot and Korzilius (1999) examined the role of subjective ethnolinguistic vitality perceptions in the maintenance of Turkish in Australia. Participants reported that preserving Turkish was very important for self-identity but the data from the ethnolinguistic vitality questionnaires showed very low group vitality for Turkish, and no direct
correlation between actual linguistic performance and participants' ethnolinguistic vitality perceptions and language attitude. However, other studies suggest that attitude and autobiographical factors have an important role in L1 attrition (e.g., Schmid 2002). Schmid (2002) studied German Jewish immigrants to the U.K and the U.S and found that the degree of attrition among the three different groups was much more significant among the speakers that immigrated during the time of more intense political persecution. She also found a correlation between attrition and other external factors such as level of education, length of immigration and ethnicity.

The studies above all investigate language maintenance in adults. Can attitudes determine the language affiliation of young bilinguals? In a study on the role of language attitude and the maintenance of Catalan in Mallorca, Pieras-Guasp (2002) found that Catalan/Spanish bilingual adolescents valued their language mostly for instrumental purposes, but showed no interest in Catalan for social interaction. Pieras-Guasp predicted that attitudinal conditions in the younger generation would limit the future success of language maintenance goals. Crucially, attitudinal and environmental variables may function differently across the lifespan in the acquisition of the dominant L 2 and in the maintenance or attrition of the L1 (e.g., Jia 1998; Potowski 2004; Schmid 2002). Jia (1998) studied how environmental factors related to age of arrival in the L2 setting determine the English language performance of Chinese children in New York City. Jia’s data replicated age effects in the second language acquisition of children and adults but she used it to question the view that age effects are due to biological differences (i.e., on critical periods on language learning). She found an inverse relationship between L1 and L2 proficiency, and strong association between L2 proficiency and communicative networks in the L2. She argues that age effects should be reconsidered in terms of children's capacity to integrate to the new culture and establish strong new socio-cultural networks, and their willingness to join language networks in the L2. The older immigrants in her study often made social choices that put them in contact with speakers of their L1 resulting in limited exposure to the L2. Their recognition of the instrumental value of the new language did not lead them to make personal choices that led to the development of a new linguistic identity.

Potowski (2004) also observed a tendency of children to integrate into their peer culture in the dominant L2. She noted dual-language immersion Hispanic children in Chicago used Spanish almost exclusively to speak to the teacher ( $82 \%$ ) while they communicated mostly in English ( $68 \%$ ) among themselves and peers. English was the dominant choice for popular culture topics.

Hakuta and D’Andrea (1992) studied the maintenance of Spanish among 308 high school students of Mexican background in Northern California. The adolescents in their study spoke the language mainly at home with their parents, but
outside the parental environment there was a rapid shift towards English. Their findings strongly suggested that Spanish proficiency among young bilinguals is primarily associated with adult language input and practice at home, rather than with attitude itself. However, choice of language outside the home (English) was predicted by the speaker's attitude to the language, not by language proficiency.

In sum, while there is some evidence of a relationship between attitudes and maintenance, and to attitudes as capable of shaping the language practices of youth, these studies do not directly consider transmission, i.e., whether families are able to establish conditions for the home language to lead to successful bilingual acquisition.

### 2.3 Family language transmission

Family language transmission refers to the intergenerational transmission of a minority language within the family unit (e.g., Döpke 1992; Fishman 1991; Lambert 2008; Romaine 1995). The day-to-day communication in the family language is established either because the parents are not fluent in the societal/dominant language (default transmission) or because they have made the informed choice to raise bilingual children as an act of identity and linguistic family planning (strategic transmission) (e.g., Cunninham-Andersson and Andersoon 2004; Lambert 2008). On the opposite spectrum, there are bilingual parents with an ethnic link to the family language who sometimes opt for no family language transmission (e.g., Ager 2001; Lambert 2008).

Another common transmission scenario is when bilingual parents with a direct ethnic link speak to their children consistently in the family language, but have no expectations or intentions of developing productive skills (oral or written). The goal and expectation of the parent is that the child understands what she/he is saying, and that often suffices. The intent of the parent is to foster receptive bilingualism rather than communicative competence or productive skills. As pointed out by Lambert (2008), the parent's motives, attitudes and expectations determine the transmission strategies to be used, and, ultimately, the type of bilingualism and language dominance achieved by the child.

## 3. Methods and participants

### 3.1 Context

We designed a parent-child study to explore language transmission and language competence in simultaneous and sequential bilingual children growing up in Toronto, which has the greatest concentration of Hispanics in Canada.

The Greater Toronto Area (GTA), the largest urban setting in Canada, represents an intensely multilingual environment. Telephone-based services and public interest documentation is commonly offered in dozens of languages. Schools routinely offer interpretation services and circulate information to parents in half a dozen languages, which vary across neighborhoods. In the 2006 Statistics Canada Census, only $54.1 \%$ of the GTA families reported English as a mother tongue, an additional $1.2 \%$ reported French, and the remainder report a non-official language. The most common non-official languages are the Chinese languages (8.1\%) (primarily Cantonese, Mandarin, and Hakka), followed by Italian (3.7\%) and Punjabi ( $2.6 \%$ ), Spanish (2.4\%), Portuguese ( $2.3 \%$ ) and Tagalog (1.9\%). More than one third of Canadians that report Spanish as their mother tongue live in this multilingual area. In sum, the community conditions are favorable to bilingualism in terms of general positive attitudes to multilingualism, but demographically unfavorable since the overall density of Spanish speakers is low.

### 3.2 Participants

We recruited seventeen families from the GTA. In these families, the children spoke Spanish; the parents had knowledge of the majority language (English), had a direct ethnic link with the family language and had made the choice to raise their children as bilinguals. Most of the families in our study had low socioeconomic status. They had few economic resources, few travel opportunities and lived in communities where English was dominant. These families showed high levels of language maintenance motivation and language identity.

Six of these families had sibling pairs, so that a total of 23 children were interviewed. We recruited families from three main areas within the GTA characterized by relatively higher and lower density of Hispanics. The high-density areas included Toronto West and the downtown core. A total of 10 children came from these two areas. These neighborhoods were considered as high density due to the large number of Hispanic families located in them, and they are described as within the top 50 areas of Spanish mother-tongue distribution in Toronto (Farley and Listar 2007).

The Community and Neighborhood Services analysis based on the 2001 Census also shows higher density of Spanish households in the northwest areas of the city. Thirteen children came from these lower-density areas, located north of the city such as Richmond Hill and Markham. The majority mother-tongue distribution in these parts of the city is Italian and Chinese and fewer Spanish-speaking families reside in here in comparison to Toronto West and the downtown core.

Most families came from Mexico, with one family from El Salvador, two from Colombia, and one from Argentina. All parents were sequential bilinguals, born and raised in their country of origin (first generation speakers). Following standard criteria (e.g., Genesee, Paradis and Crago 2004), children were classified into a simultaneous bilingual group, i.e., those born in Canada or the U.S., or who arrived before the age of $3(\mathrm{~N}=13)$, and a sequential bilingual group, i.e., born outside of Canada or the U.S. and only initiated contact with English after 3;0 ( $\mathrm{N}=10$ ). The simultaneous bilingual children ranged in age from 3;0 to 7;9 (mean 5;2), and their families had been in the US or Canada between 5 and 20 years (except for a younger child, aged 3 , whose family moved 2 years ago). The sequential bilingual group was older, ranging in age from $4 ; 9$ to $8 ; 4$ (mean 6;3). Length of residence in Canada for these families was between 1 and 2 years, except for two siblings and another child who had arrived just 8 and 7 months before the time of the interview, respectively.

### 3.3 Parent instruments

Parents were asked to complete questionnaires about their language abilities, the language situation and language abilities of the child, their attitudes to the Spanish language and to bilingualism and the general ethnolinguistic characteristics of their community. These instruments were administered in Spanish, unless the parent requested an English version, and included the following five components:

1. Parental language history questionnaire. This survey elicited information on occupation, languages of education, educational level, age of onset of bilingualism, length of residence in Canada, parents' L1, present contact with Spanish and English, how frequent they visit Spanish-speaking countries and self assessment of L2 language ability among other topics.
2. Attitude to bilingualism questionnaire (adapted from Pieras-Guasp 2002). This survey included 33 questions on parents' instrumental and integrative/ personal attitudes to bilingualism in general and Spanish-English bilingualism in specific within the Canadian context.
3. Attitude to Spanish language questionnaire. Parents responded to specific questions about their perceived vitality and importance of the Spanish language and culture.
4. Community characteristics/ethonolinguistic vitality questionnaire. The purpose of this questionnaire was to evaluate the ethonolinguistic vitality of each community (e.g., Bourhis, Giles and Rosenthal 1981). It included questions on the demography and status of the community (e.g., local businesses, proportion of members, economic wealth and prestige, social status) as well as on how integrated the members of the community were.
5. Child language background questionnaire (adapted from Paradis, Nicoladis and Crago 2007). The child language background questionnaire requested overall fluency ratings from not fluent, somewhat fluent, quite fluent to completely fluent. Ratings were requested for child, mother, siblings, in addition to other main caregivers, such as babysitter or grand parents, plus additional questions about the language environment, including levels of exposure and preferred language by activities, and language of daily use by settings. An additional set of questions about home language practices (language choice, feedback and repair strategies), was included as a final section to the standard children's language history (Appendix A).

## 3.4

Child instruments
The children's involvement in the study included the following components: a Spanish speech sample taken from the child, an elicited imitation task, and an interview that covered the child's beliefs about language and bilingualism.

The speech sample contained both an elicited narrative, and a segment of conversational interaction. For the elicited narrative, children were asked to retell a fairy tale in both English and Spanish, using a wordless picture book. The children chose a book (from a choice of Little Red Riding Hood, Snow White and Cinderella) and proceeded to tell the story on the basis of the images. They told the story first in Spanish and then in English, each time to one of the testers according to their native language. Narratives were digitally recorded and later transcribed for analysis.

As an additional measure of language skill in Spanish, an elicited imitation task was employed (e.g., Crain and Thornton 1998). Studies of literacy skills have shown that sequential bilinguals have significantly lower scores in non-word repetition tasks (e.g., Lipka, Siegel and Vukovic 2005). Therefore, we proposed to test whether a repetition task could be used to measure retention of proficiency in Spanish. We adapted the test in Eisenchlas' (2003) study of Spanish monolinguals,
which targeted the position of enclitic/proclitic pronouns. The sentences included 8 clitic tokens ( 4 proclitic and 4 enclitic) plus 6 additional non-clitic items. They were of comparable complexity, and ranged in length from 8-10 words including the clitic, as shown in examples in (1):
(1) a. Por la tarde Aladín quiere darme un caramelo.
(Enclitic) "In the afternoon, Aladdin wants to give me a candy."
b. La princesa Jasmín lo puede ver esta noche.
(Proclitic) "Princess Jasmin can see him tonight."
c. Dora juega con sus amigas en el parque.
(Non-clitic control) "Dora plays with her friends in the park."

Children were instructed to repeat as much as they could remember. The native Spanish interviewer then read target sentences, twice if necessary. Performance was measured by calculating the proportion of words correctly repeated, and the correct proportion of sentences repeated with the correct word order.

The attitude component of the interview was conducted in English, by another bilingual interviewer who presented herself as not fluent in Spanish. The interview followed a set of questions about attitudes to Spanish and bilingualism. Our goal in including this part of the interview was to assess children's understanding of their own bilingual situation, their language preference, their feelings about being bilingual and about speaking Spanish, and their views on who spoke which language in their social and familial networks. There is some data on children's sensitivity to bilingual situations in terms of language choice, and communication repair strategies. Comeau and Genesee (2001) show that bilingual children as young as two and a half use code switching as a strategy to repair communication breakdowns, differentiating language from other kinds of communication breakdowns. However, there is little beyond anecdotal evidence about children's experiences and their perceptions of their bilingual situation.

## 4. Results

4.1 Language dominance and general language measures

We first examined these bilingual children's success at developing and retaining Spanish by considering parental reports of fluency in their two languages. To calculate dominance, the scores given to fluency in Spanish were subtracted from those given to English. Unsurprisingly, parental reports described the simultaneous bilingual children as less dominant in Spanish than sequential bilinguals. In both groups there was a wide range of dominance ratings, but the simultaneous
bilinguals were mostly balanced or English-dominant, whereas the sequential children tend to be Spanish dominant. Figure 2 reports the observed counts of children in each group, rated as balanced (dominance $=0$ ), or English dominant (negative portion of scale), or Spanish dominant (positive side of scale, with $3=$ as Spanish monolingual).


Figure 1. Parental reports of language dominance for sequential and simultaneous bilingual children (observed number of children)

Children's elicited narratives were transcribed and analyzed for productivity, measured in terms of total number of clauses or Terminable Units, which include a main clause and dependents (Castilla 2008), and complexity, measured in terms of subordination index. The subordination index is the ratio of total number of clauses over number of T-units.

Table 1 shows that the older Spanish dominant sequential children produced longer narratives in Spanish, and a slightly higher rate of subordinate clauses than their simultaneous counterparts. The sequential children also produce more sentences in Spanish than in English, unlike the simultaneous children, who are only slightly more productive in Spanish. Subordination scores are higher in English in both groups. The two groups are undistinguishable in terms of their measures of productivity and complexity in English.

Table 1. Children scores on measures of productivity and complexity in both languages

| Age in months | Reported <br> child <br> dominance | Number <br> of T-units <br> in Spanish | Sub. index <br> in Spanish | Number <br> of T Units <br> in English | Sub. index <br> in English |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Simultaneous |  |  |  |  |  |
| 41 | 3 | 36 | 1.14 |  |  |
| 43 | 1 | 38 | 1.29 | 15.00 | 1.40 |
| 46 | 1 | 76 | 1.04 | 15.00 | 1.00 |
| 46 | 0 | 21 | 1.00 | 29.00 | 1.48 |
| 46 | 2 | 20 | 1.00 | 11.00 | 1.09 |
| 48 | 0 | 3 | 1.00 | 2.00 | 1.50 |
| 59 | 1 | 26 | 1.00 | 15.00 | 1.07 |
| 66 | 1 | 47 | 1.11 | 38.00 | 1.29 |
| 81 | 0 | 47 | 1.04 | 57.00 | 1.58 |
| 81 | -2 | 32 | 1.06 | 45.00 | 1.44 |
| 81 | -2 | 66 | 1.02 | 30.00 | 1.47 |
| 83 | -1 | 36 | 1.31 | 34.00 | 1.18 |
| 93 | -1 | 41 | 1.07 | 52.00 | 1.52 |
| Means 62.61 | 0.23 | 37.6 | 1.08 | 28.58 | 1.33 |
| Sequentials |  |  |  |  |  |
| 57 | 1 | 116 | 1.17 | 31.00 | 1.19 |
| 60 | 2 | 59 | 1.05 | 5.00 | 1.00 |
| 66 | 0 | 40 | 1.20 | 47.00 | 1.57 |
| 70 | 3 | 39 | 1.03 | 13.00 | 1.31 |
| 72 | 1 | 52 | 1.00 | 22.00 | 1.14 |
| 76 | 1 | 61 | 1.23 | 28.00 | 1.18 |
| 78 | 1 | 57 | 1.11 | 37.00 | 1.51 |
| 82 | 2 | 94 | 1.47 | 47.00 | 1.21 |
| 95 | 1 | 61 | 1.05 | 46.00 | 1.41 |
| 00 | 0 | 20 | 1.10 | 12.00 | 1.75 |
| Means 75.6 | 1.2 | 59.9 | 1.14 | 28.80 | 1.33 |
|  |  |  |  |  |  |

We tested the associations between these measures and parental reports of child language dominance. Parental report was not well correlated with productivity and complexity measures. We found no significant correlations between reported dominance and productivity and complexity measures, except for the subordination index in English, which showed a significant negative correlation with the parental report of dominance ( $r=-.473, p=.03$ ).

### 4.2 Results on elicited imitation

Performance on the sentence imitation task showed that the sequential bilingual children performed better on both the proportion of words correctly imitated, and on the proportion of sentences with the correct clitic order. Group means and standard deviations are reported in Table 2.

Table 2. Performance on the elicited imitation task for simultaneous and sequential bilingual children

|  | Mean proportion of words <br> correctly repeated | Mean proportion of utterances <br> repeated with correct clitic order |
| :--- | :--- | :--- |
| Simultaneous | $.81(\mathrm{sd}=.14)$ | $.40(\mathrm{sd}=.27)$ |
| Sequential | $.94(\mathrm{sd}=.03)$ | $.61(\mathrm{sd}=.19)$ |

The relationship between parental dominance reports and performance in the imitation task was examined using partial correlations that controlled for age. The parental dominance report showed a significant positive correlation with the proportion of words correctly imitated ( $r=.681, p=.002$ ), and a positive, but nonsignificant, correlation with percentage of utterances where the clitic word order was repeated correctly ( $r=.338, p=.15$ ). These correlations suggest that elicited imitation provides a good assessment of children's Spanish ability.

To compare the performance across groups, we corrected the age imbalance between the simultaneous and bilingual children by eliminating 5 of the younger children in the simultaneous group. This rendered the age groups more comparable, as the corrected mean age of the simultaneous group raised to 7;3.7 ( $\mathrm{N}=8$ ), just two months younger than the sequential groups (mean $=7 ; 5.6, \mathrm{~N}=10$ ). The difference between the proportion of words correctly imitated across groups was found to be significant even after correcting for age ( $F_{1,16}=6.676, p=.02$ ). The difference between the proportion of sentences with the correct clitic order approached significance at ( $F_{1,16}=3.955, p=.06$ ).

### 4.3 Perception and attitudes of the bilingual families

The families of simultaneous bilinguals were primarily from low-density neighborhoods (7/9), while families that arrived more recently tended to live in the high-density neighborhoods (7/8). Neighborhood selection itself did not make a difference for the average responses to the questionnaire on neighborhood density. In general, families tended to describe their neighborhoods as allowing low access to contact with other speakers and resources in Spanish. The recently arrived
families were more likely to describe their neighborhoods as having some Spanish speakers, and as having some degree of contact with Spanish in their community. Similarly, these families were more likely to give positive responses to questions about the ethnolinguistic vitality of the Spanish speaking community than the families that had immigrated earlier.

With regards to attitudes to bilingualism, or attitudes to Spanish, the differences across the families were slight. Of the seventeen families, three strongly agreed with all positive statements about Spanish, nine tended to agree, and five others expressed neutral attitudes on the average. None of the parents provided answers in the negative range of the scale. Family's attitudes to Spanish and their expressed attitudes to bilingualism were strongly correlated ( $r=.82$ ), with most families agreeing with positive statements to Spanish. Interestingly, more of the recently arrived families had a more neutral stance towards Spanish than longtime resident families.

One possibility is that the recent arrivals place more instrumental value on mastery of English, and only later feel the desire to maintain Spanish. Shenk (2008), in a study of kindergarteners and second grade students who choose to speak Spanish, describes a parent who switched orientation after immigration. This father favored learning English when he lived in Mexico, for the instrumental value it offered. Once in the U.S., his focus shifted towards Spanish retention. This parent consistently saw bilingualism as both granting economic and cultural benefits, but his relative orientation towards Spanish changed in response to the external setting. Table 3 summarizes the scores across the various variables for the families of simultaneous and sequential bilingual children.

Table 3. Average scores per family type to responses about perception of community density, ethnolinguistic vitality of the community, and attitudes to the Spanish language and to bilingualism in general. Scored ranged from 0 (none/never/strongly disagree) to 5 (many/very frequent/strongly agree)

| Family types | Community <br> density | Ethnolinguistic <br> vitality | Attitudes <br> to Spanish | Attitudes to <br> bilingualism |
| :--- | :--- | :--- | :--- | :--- |
| Simultaneous bilinguals |  |  |  |  |
| (Early arrivals) $(\mathrm{N}=10)$ | 1.68 | 2.41 | 4.07 | 3.88 |
| Sequential bilinguals <br> (Recent arrivals) $(\mathrm{N}=8)$ | 3.15 | 3.11 | 3.79 | 3.96 |

There were some differences between recent arrivals and long-time resident families in Toronto. More of the recent arrivals lived in the high-density core of the city, and consequently reported greater contact with the language and access to other speakers. They also tended to agree more with statements about the vitality
of the language in the community. Curiously, all but one of the adult respondents grossly overestimated the percentage of speakers in the area: estimates ranged from 10 to 40 percent. There were no differences among families in term of attitudes to bilingualism, which was primarily positive, with some wider differentiation in the questionnaires on attitudes to Spanish.

### 4.4 Characteristics of the home context of bilingual children

We also analyzed the results on the portion of the questionnaires devoted to questions about the language within the home environment. The more obvious differences between the families were, naturally, related to the length of stay. The sequential bilinguals had families that were much more dominant in Spanish, and the children were also described by their parents more often as Spanish-dominant. Furthermore, these children, according to parental reports, were more likely to have less exposure to English during daytime/outside the home settings.

We observed no differences in the parental report of children's preferred language choice in interactions with various family members. However, parents of sequential bilinguals described themselves as initiating a conversation in Spanish very frequently or always, whereas parents of simultaneous bilinguals reported initiating an exchange in Spanish at slightly lower rates. When a child spoke in Spanish, adults in both groups consistently report responding in Spanish. When the child spoke in English, on the average, families of sequential bilinguals more frequently reported following up with English rather than switching to Spanish.

There were few differences between the two groups in the parental response when the child changed the language of the conversation. Few parents corrected the child who spoke Spanish in an English conversation, unless the interlocutor was a monolingual English speaker, in which case parents tended to remind the children of this fact. Some parents reported correcting grammatical errors, and others reported reminding children of how things are said in English. When the conversation was in Spanish, and the child switched to English, parents reported correcting around $70 \%$ of the time, just slightly less than when the other interlocutor was a Spanish monolingual. Parental feedback was slightly different in quality: use of Spanish is directly encouraged with expression such as habla español (Fam4) ("speak Spanish"), contesta en el idioma en que se te habla (Fam13) ("reply in the language in which you are addressed"), or in our family we speak Spanish (Fam9). Again, there were no differences in reported response across family types.

We also found no difference between groups in the reported frequency of mixing, with most parents reporting regular to occasional mixing. The most common parental response of the simultaneous bilinguals was single-language recast,
where the parent repeats the utterance without mixing, with other parents reporting making explicit observations to the child. For the families of sequential bilinguals, half of the families had similar patterns, but half of them also reported explicit negative feedback. In the words of one parent: "cuando se habla una frase, que se diga toda en español y toda la frase en inglés sin mezclar una con la otra" (Fam16) ("when you say a phrase, it should be all in Spanish or all in English without mixing one language with the other").

Overall, this data suggests continuity in home language practices as time goes by in terms of response to children's language switching and language mixing. Recent arrivals were no different from the families that had been living here for several years and were raising simultaneous bilinguals. We interpret the absence of difference to indicate that language practices within these bilingual families are not necessarily changing as time goes by. There were also little differences in the reported preferred language of interaction with family members, and only small differences in how adults report their interactions with their bilingual children when these children spoke in English, with the more recent immigrants describing more supportive actions towards their children's English.

We explored the statistical association between the various variables for family conditions and child dominance. The most significant variable associated with dominance was the time spent in an English speaking environment ( $r=-.685$, $p<.000$ ), followed by parental initiation in Spanish ( $r=.602, p=.002$ ).

To examine whether attitude had an effect on language practices at home, families were split into those with average attitude scores around the positive range, to those in the very positive range. The results reported on Table 4 show some differences for attitude groups, more visibly in the case of the simultaneous bilinguals. However, these differences were not significant.

Table 4. Average ratings on contextual variables (family members dominance, daytime exposure and parental initiation) and child dominance across attitude stance in families

|  | Average dominance of family members (-3 to 3) | Proportion of daytime exposure in Spanish (0-1) | Parental initiation in Spanish 0 to 5 | Child <br> dominance $-3 \text { to } 3$ |
| :---: | :---: | :---: | :---: | :---: |
| Simultaneous neutral | 0.38 | 0.67 | 4.67 | 0.83 |
| Simultaneous positive | 0.33 | 0.46 | 3.29 | -0.29 |
| Sequential neutral | 1.50 | 0.26 | 4.50 | 1.50 |
| Sequential positive | 1.40 | 0.25 | 4.50 | 1.20 |

The data suggest that attitude was unrelated to language dominance of family members for the simultaneous and sequential bilinguals, and had little or no effect in parental response to child language switch. The effect of attitude was apparent only for the simultaneous bilingual groups, in terms of the degree of parental initiation, and the degree of Spanish exposure during daytime outside the home activities.

In sum, we find some trends suggesting that parent's choices and attitudes may create the conditions to sustain Spanish dominance in the simultaneous bilinguals, and to assist in the retention of Spanish dominance in the sequential bilinguals. However, the limits of this exploratory study prevents statistical confirmation of this trend.

## 4.5

Children's own attitudes and perceptions
The child interview asked whether the children themselves liked speaking two languages, how come they were able to, who spoke which language among their families and friends, and which language they preferred to speak and why. Nineteen children completed the interview. While these children were not always willing to state a language preference, or to discuss their attitudes, they were clearly able to describe to whom they spoke which language, and they often linked their attitudes to these interactions. In this part of the interview, children frequently confirmed parental report of the linguistic situation: Spanish was spoken mostly by other family members, but friends at school spoke mostly or all in English, corroborating previous studies (e.g., Potowski 2004). Only a handful of the children reported that they knew one other child who also spoke Spanish. One child (EM $4 ; 11$ ) said that he generally spoke Spanish in school, and gave a positive answer when the interviewer asked if many children spoke in Spanish. He was then contradicted by his older brother, aged 10 , who explained to the interviewer that only one of the school friends actually spoke Spanish.

Most children did not respond to the question of how they learned each language. A few of these children were able to point out to context (learning Spanish from parents/English at school), and yet others answered "by myself". A few of them acknowledged that speaking two languages was a bit difficult. Lexical gaps, or inability to understand or say certain things, were the most common explanations provided about why they thought that being bilingual was hard. One child (JPM 7;9) described Spanish as hard because there were words he did not know. His description of his Spanish ability as low does not match either the parental report nor the interviewers' direct observation (see (2)). A six-year old sequential child, provides a similar explanation, shown in (3).
(2) *JPM: It was hard for me
${ }^{*}$ DLT: Yeah? Is it hard for you to speak or no?
${ }^{*}$ JPM: Kind of hard.
*DLT: A little bit? Why?
*JPM: Cause I still cause there's some words I don't know in Spanish
*DLT: so you have to practice? So how is it that you know both though? How do you know both English and Spanish?
*JPM: I don't know; I don't really speak Spanish.
*DLT: Well I heard you speaking [...]
*MOT: Sí hablas...
(3) ${ }^{*}$ DLT: is it hard or is it easy to speak both languages?
*DAN: sometimes when we have it's a little bit hard
*DLT: oh really? Why?
*DAN: because sometimes I don't know the question (DAN 6;10)
And yet another sequential child described being comfortable with both languages, because of the separation by situation:
(4) *DLT: Now is it hard to speak both Spanish and English or is it easy?
*ADE: easy
*DLT: It's really easy, why do you think so?
*ADE: because sometimes at school I talk English and in my home I talk Spanish and then I start getting it.
(ADE 5;6)
With respect to attitudes, children generally reported that they liked Spanish, and liked being able to speak in two languages. Among the children in the simultaneous group who completed the interview ( $n=9$ ), one child did not state a specific preference, and the others were equally divided among those who preferred English and those who preferred Spanish. There was no correlation between the children's preferences and the parental responses in the attitude questionnaires. It is important to recall that there were no families with explicit negative attitudes in our sample. This may reflect either a general positive stance towards multilingualism in the Toronto community, or a self-selection bias for individuals with a positive attitude to participate in our study. Surprisingly, more children in the families that expressed positive or highly positive attitudes to Spanish and bilingualism reported a preference for English. These data are presented in Table 5.

Table 5. Number of simultaneous bilingual children who declared a language preference, according to their family's ratings of attitude towards the Spanish language

| Child preference | Neutral family stance | Positive family stance |
| :--- | :--- | :--- |
| For Spanish | 3 | 1 |
| For English | 0 | 4 |
| No preference | 0 | 1 |

As mentioned above, the families of sequential bilinguals expressed more neutral attitudes towards the language, but most of their children showed no preference towards either language. Among the sequential families with positive attitudes towards Spanish and towards bilingualism, most children preferred English, with one child enthusiastically expressing a preference for both languages. This is summarized in Table 6.

Table 6. Number of sequential bilingual children who declared a language preference according to their family's ratings of attitude towards the Spanish language

| Child preference | Neutral family stance | Positive family stance |
| :--- | :--- | :--- |
| For Spanish | 1 | 0 |
| For English | 2 | 3 |
| No preference | 3 | 1 |

Taken together, these responses already indicate a language orientation towards English. Interestingly, when asked to explain their preference, many of the children, expressed their preference in terms of their ability, even when this justified choices in the direction opposite to their actual language dominance. For example, a seven year-old sequential child described as Spanish dominant declares she prefers English because it is easier:
(5) *DLT: and which language did you tell me you like speaking more? ${ }^{*}$ LIN: English
${ }^{*}$ DLT: and why English?
${ }^{*}$ LIN: because it's more easy
*DLT: Ok and Spanish is a little bit harder? Why is it hard?
${ }^{*}$ LIN: cause sometime I cannot say it the words.
There were some other types of responses. One child explained his preference for Spanish in terms of family affiliations (6). Yet another sequential child, described as a strongly Spanish dominant, explains that she prefers English because that is what their friends speak (7).
(6) *DLT: Which one do you like more?
*ANG: Spanish
*DLT: You do. Why?
*ANG: Because its what my dad and mom speak
(ANG, 6;11)
(7) *KAR: English.
*DLT: You like English more. Really? Why?
*KAR: Because I \# Because I like \# because \# because my friends speak English
(KAR, 5;10)
Two children pinpointed to school interactions as the source of choosing English. One girl (IVA 6;8) explained that she "hated Spanish" because her friend said he did. Another girl, also a sequential bilingual, says she prefers speaking English, even when her friends also spoke Spanish, because it can create conflict.
(8) *DLT: Why do you speak English with your friends?
${ }^{*}$ MIR: Yeah and sometimes when I speak Spanish to the people that speak Spanish some other people think they're talking bad about them and some people feel left out.
(MIR 8;4)
In sum, these children are already developing a language orientation which may determine their future language choices, and possibly their future ability. Interestingly, it is not clear that the parental attitudes are a determinant factor, as children's declared preferences seem unrelated to parental overall attitudes to bilingualism and to the Spanish language. Instead, when asked to explain their preferences, these children mainly pointed to their perceived abilities, and experience of successful or unsuccessful use. While all children demonstrated clear awareness of the language affiliation and abilities of the members of their social network, some of these children were able to establish a link between their own current preference, and specific interactions with their peers.

## 5. Conclusions

The families we interviewed had, for the most part, favorable views towards the Spanish language and towards bilingualism in general. This matches the overall stance of the Toronto community, where languages and diverse ethnic backgrounds are accepted as the norm, and there is an abundance of multilingual media, street signs, language services in government, education and commercial establishments and community support for ethnic celebrations. Whether they lived in the downtown core, or in the more dispersed neighborhoods around the Greater Toronto Area, the community conditions for our bilingual families were
not radically different. Newly arrived families (the sequential bilingual children and their parents) were living in the more dense downtown areas, while the simultaneous bilinguals tended to come from the less dense suburban context.

There were no great differences in language practices among these two types of families. Parental interaction around language switching appeared to be fairly neutral, and parental feedback seemed to be more concerned with repairing conversational exchange, than on enforcing the use of one language or the other. Parents of sequential bilinguals more often reported they reacted to their children's code-switching, but there was no overall effect of attitude to code-switching and dominance. Overall, these recent immigrant families showed a slight trend towards more maintenance of a Spanish-home language policy, but also seemed more willing to provide English language support for their children.

Differences between the two groups of families in terms of the attitudes were small. However, despite the small range elicited, these were related to family practice in two of the dimensions assessed: the proportion of parental conversation initiated in Spanish, and the degree of exposure outside the home (via school or social networks). Although these differences were modest, they seemed to be enough to have an impact on the language dominance of the children, particularly in the case of the simultaneous bilinguals.

There is one potential methodological concern, the question of whether parental attitude is determining actual dominance, or parental perception of child dominance. However, it is worth noting that the validity of parental rating is clearly supported by the correlation data with the objective measures in the language tasks, particularly in the case of the elicited imitation task, and the English measures of complexity. Spanish narrative data is less strong, suggesting the need for more research on language measures for bilingual children. The opposite methodological concern is also an issue: that the narrowness of the population selected masked the true size of the effects, since our selection strategy targeted successful families (i.e., where the children maintained Spanish), which also happened to have attitudes in the neutral to positive range. Unfortunately, we lack general data on maintenance trends among the Toronto Hispanic population.

To conclude, these bilingual Hispanic children in Toronto remain speakers of the language, and are growing up in families actively engaging in language transmission. During these preschool and early school years, half of the simultaneous bilinguals retain a Spanish dominance affiliation, and in many ways appear to be quantitative but not qualitatively different from the more recently arrived sequential bilinguals. The family conditions and external environments of these two sets of children retain their characteristics over time, but the families with more positive orientation engage in language practices that favor maintenance, such as initiation of conversations in Spanish.

Predicting language outcome in bilingual children is the result of a complex web of factors, some social, some familial, some linguistic. Minimally, one can assume that input conditions are the single most relevant determinant factor, and that these can fluctuate in the course of the life of a young bilingual. Input conditions for younger children depend primarily on the various household members, and their language practices i.e., how often they speak in each language during the language transmission process. Adult language practices are determined by their life experience, their attitudes towards majority and minority language, and possibly, by their perceptions of the vitality of their linguistic community. In addition to these, child input conditions are also partly determined by the external context, such as how much access to the Spanish language there is outside the home, both through the media as well as by means of passive exposure; how many additional relevant conversational partners will the child be able to encounter outside the home, etc. For school-aged children, clearly, the school setting is a crucial determinant. Finally, it is conceivable, as suggested by Meisel (2007b), that the young bilingual could also exhibit language preferences that could to a certain extent be independent of input conditions. Whether these language preferences or language orientation are determined by child attitudes and beliefs is an open question. We propose thus a multidimensional model of language transmission in bilingual families, as shown below:


Figure 2. Dimensions of language transmission

In this model, the adult dimensions of language (both subjective, i.e., attitudes, and objective, i.e., language at home and at the community), determine the transmission process (the home language practice), and this in turn is the primary determinant of the child dimension of use, at least in the initial phase of childhood, and possibly reversed at the onset of schooling. In addition to this, attitude, both in the adult and the child, may have a direct role. Finally, the family language transmission is likely to be affected by the community conditions. We hypothesize that all these factors determine child language use, but that language practices at home are the crucial determinants of bilingual success.

While we don't know how many of these children of the Hispanic diaspora in Toronto will grow up to be full participants in their heritage language community, three notions emerge from our study: (1) that the potential for language maintenance exists; (2) that family choices can make a difference; (3) and that the future Spanish of these young speakers will exhibit their own distinct features; the structural footprints of their bilingual status.

## References

Ager, D. 2001. Motivation in Language Planning and Language Policy. Clevedon: Multilingual Matters.
Atzen, I. 1988. Attitudes, Personality and Behavior. Milton Keynes: Open University Press.
Baker, C. 1992. Attitudes and Language. Clevedon: Multilingual Matters.
Bourhis, R., Giles, H. \& Rosenthal, D. 1981. Notes on the construction of a 'subjective vitality questionnaire' for ethnolinguistic groups. Journal of Multilingual and Multicultural Development 2(2): 145-155.
Castilla, A. 2008. Developmental Measures in Spanish Acquisition. PhD dissertation, University of Toronto.
Comeau, L. \& Genesee, F. 2001. Bilingual children's repair strategies during dyadic communication. In Trends in Bilingual Acquisition [Trends in Language Acquisition Research 1], J. Cenoz \& F. Genesee (eds), 231-256. Amsterdam: John Benjamins.

Coté, P. \& Clement, R. 1994. Language attitude. An interactive situated approach. Language and Communication 14: 237-251.
Crain, S. \& Thornton, R. 1998. Investigations in Universal Grammar: A Guide to Experiments on the Acquisition of Syntax and Semantics. Cambridge MA: The MIT Press.
Cunninham-Andersson, U. \& Andersoon, S. 2004. Growing Up With Two Languages. A Practical Guide. London: Routledge.
Cuza, A. 2010. The L2 acquisition of aspectual properties in Spanish. Canadian Journal of Linguistics 55(2): 1001-1028.
De Houwer, A. 1994. The Acquisition of Two Languages From Birth: A Case Study. Cambridge: CUP.
Döpke, S. 1992. One Parent-One Language: An Interactional Approach [Studies in Bilingualism 3]. Amsterdam: John Benjamins.

Eisenchlas, S. 2003. Clitics in child Spanish. First Language 23(2): 193-211.
Farley, C. \& Listar, D. 2007. The language quilt. The Toronto Star. <www3.thestar.com/static/ PDF/20071230_ID06.pdf>
Fishman, J. 1991. Reversing Language Shift: Theoretical and Empirical Foundations of Assistance to Threatened Languages. Clevedon: Multilingual Matters.
Genesee, F., Paradis, J. \& Crago, M. 2004. Dual Language Development and Disorders: A Handbook on Bilingualism and Second Language Learning. Baltimore MD: Brookes.
Giles, H., Bourhis, R. Y. \& Taylor, D. M. 1977. Towards a theory of language in ethnic group relations. In Language, Ethnicity and Intergroup Relations, H. Giles (ed.), 307-348. New York NY: Academic Press.
Grosjean, F. 1989. Neurolinguists beware! The bilingual is not two monolinguals in one person. Brain and Language 36: 3-15.
Guardado, M. In press. Language, identity and cultural awareness in Spanish-speaking Families. Canadian Ethic Studies.
Hakuta, K. \& D'Andrea, D. 1992. Some properties of bilingual maintenance and loss in Mexican background high school students. Applied Linguistics 13: 72-99.
Jia, G. 1998. Beyond Brain Maturation: The Critical Period Hypothesis in Second Language Acquisition Revisited. PhD dissertation, New York University.
Köpke, B. 2004. Neurolinguistic aspects of attrition. Journal of Neurolinguistics 17: 3-30.
Lambert, B. 2008. Family Language Transmission: Actors, Issues, Outcomes. Frankfurt: Peter Lang.
Lipka, O., Siegel, L. S. \& Vukovic, R. 2005. The literacy skills of English language learners in Canada. Learning Disabilities Research \& Practice 20(1): 39-49.
López-Morales, H. 1993. Sociolinguistica. Madrid: Gredos,
MacLaughlin, B. 1978. Second Language Acquisition in Childhood. Hillsdale NJ: Lawrence Erlbaum Associates.
Meisel, J. 2001. The simultaneous acquisition of two first languages: Early differentiation and subsequent development of grammars. In Trends in Bilingual Acquisition [Trends in Language Acquistion Research 1], J. Cenoz, \& F. Genesee (eds), 11-41. Amsterdam: John Benjamins.
Meisel, J. 2007a. The weaker language in early child bilingualism: Acquiring a first language as a second language? Applied Psycholinguistics 28: 495-514.
Meisel, J. 2007b. On autonomous syntactic development in multiple first language acquisition. In Proceedings of Boston University Conference in Language Development, H. Caunt-Nulton, S. Kulatilake \& I. Woo (eds), 25-45. Somerville MA: Cascadilla Press.

Montrul, S. 2002. Incomplete acquisition and attrition of Spanish tense/aspect distinction in adult bilinguals. Bilingualism: Language and Cognition 5: 39-68.
Montrul, S. 2005. On knowledge and development of unaccusativity in Spanish L2 acquisition. Linguistics 43(6): 1153-1190.
Montrul, S. \& Potowski, K. 2008. Command of gender agreement in school-age Spanish-English bilingual children. International Journal of Bilingualism 11(3): 301-328.
Müller, N. \& Hulk, A. 2001. Crosslinguistic influence in bilingual language acquisition: Italian and French as recipient languages. Bilingualism: Language and Cognition 4: 1-21.
Müller, N. 2003. (In) vulnerable Domains in Language Acquisition [Hamburg Studies on Multilingualism 1]. Amsterdam: John Benjamins.

Paradis, J. \& Genesee, F. 1996. Syntactic acquisition in bilingual children. Studies in Second Language Acquisition 18: 1-25.
Paradis, J., Nicoladis, E. \& Crago, M. 2007. French-English bilingual children's acquisition of the past tense. In Proceedings of Boston University Conference in Language Development, H. Caunt-Nulton, S. Kulatilake \& I.-H. Woo (eds), 497-507. Somerville MA: Cascadilla Press.
Pieras-Guasp, F. 2002. Direct versus indirect attitudes measurement and the planning of Catalan in Mallorca. Language Problems and Language Planning 26: 51-68.
Potowski, K. 2004. Student Spanish use and investment in a dual immersion classroom: Implications for second language acquisition and heritage language maintenance. Modern Language Journal 88(1): 75-101.
Potowski, K. 2005. Tense and aspect in the oral narratives of dual immersion students. Proceedings of the Seventh Hispanic Linguistics Symposium, 123-136. Somerville MA: Cascadilla.
Romaine, S. 1995. Bilingualism. Oxford: Blackwell.
Schlyter, S. 1993. The weaker language in bilingual Swedish-French children. In Progression and Regression in Language, K. Hyltenstam \& A. Viberg (eds). Cambridge: CUP.
Schmid, M. 2002. First Language Attrition, Use, and Maintenance. The Case of German Jews in Anglophone Countries [Studies in Bilingualism 24]. Amsterdam: John Benjamins.
Shenk, E. 2008. Choosing Spanish: Dual language immersion and familial ideologies. In Bilingualism and Identity [Studies in Bilingualism 37] M. Niño-Murcia \& J. Rothman (eds), 221-256. Amsterdam: John Benjamins.
Silva-Corvalán, C. 1994. Language Contact and Change. Oxford: OUP.
Silva-Corvalán, C. 2003. Linguistic consequences of reduced input in bilingual first language acquisition. In Linguistic Theory and Language Development in Hispanic Languages, S. Montrul, \& F. Ordóñez (eds), 375-397. Somerville MA: Cascadilla Press.

Weinreich, U. 1974. Languages in Contact. The Hague: Mouton.
Yagmur, K., de Bot, K. and Korzilius, H. 1999. Language attrition, language shift and ethnolinguistic vitality of Turkish in Australia. Journal of Multilingual and Multicultural Development 20(1): 51-69.
Zentella, A. C. 1997. Growing up Bilingual: Puerto Rican Children in New York. Malden MA: Blackwell.

## Appendix A

Child language background questionnaire

- Child's language environment

Child's place of birth: $\qquad$
If not born in Canada, how old was child upon arrival in Canada? $\qquad$
In a given year, how often has your child visited a Spanish-speaking community?
i. Year: $\qquad$ Cumulative length of stay: $\qquad$ _ months $\qquad$ weeks $\qquad$ days

ii. Year: $\qquad$ Cumulative length of stay: $\qquad$ _ month $\qquad$ weeks $\qquad$ days
Proportion of exposure to both languages during visit(s):

iii. Year: $\qquad$ Cumulative length of stay: $\qquad$ _months $\qquad$ weeks $\qquad$ days


- Child's language behavior (please circle only one option)

Speaks mostly English / Spanish with mother.
Speaks mostly English / Spanish with father.
Speaks mostly English / Spanish with sibling 1.
Speaks mostly English / Spanish with sibling 2.
Speaks mostly English / Spanish when playing with friends at school.
Speaks mostly English / Spanish when playing with friends at home/in the community.
Speaks mostly English / Spanish with maternal grandparents.
Speaks mostly English / Spanish with paternal grandparents.
Watches mostly English / Spanish television and videos.
${ }^{* *}$ Please add any information you feel is pertinent to your child's language acquisition (learning difficulties with language, hearing difficulties, referral to speech pathologist, etc.):

## Language of daytime child-care or schooling

| When your child was... | Day-time child care/ school program (Please check one) | Dominant language (Please circle one) | Secondary language <br> (if applicable) |
| :---: | :---: | :---: | :---: |
| 0 to 2 years | Home parenting $\qquad$ <br> Day care $\qquad$ <br> Home childcare | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ |
| 2 to 3 years | Home parenting <br> Day care $\qquad$ <br> Home childcare | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ |
| 3 to 4 years | Home parenting <br> Pre-school <br> Home childcare | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ |
| 4 to 5 years | Home parenting <br> Pre-school <br> Home childcare | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ | English $\qquad$ <br> Spanish $\qquad$ <br> Other $\qquad$ |
| Kindergarten | English $\qquad$ <br> French $\qquad$ <br> French immersion $\qquad$ <br> French bilingual $\qquad$ | Percent use at school: <br> Other | English $\qquad$ <br> French $\qquad$ \% <br> Spanish $\qquad$ \% $\qquad$ $\qquad$ \% |

Comments (please add any information you feel is pertinent with respect to your child's exposure to language):

## Home language practices

1. Topic initiation

In which language do you initiate conversation with your child (named above)?

2. Adult response

In which language do you respond when your child speaks in


