

DOMINANCE OR PREFERENCE?: A CASE STUDY OF CROSS-LINGUISTIC TRANSFER IN BILINGUAL CHILD LANGUAGE ACQUISITION¹

Erin Wright

1.0 Introduction

The child growing up with two languages provides a unique opportunity to investigate the myriad cognitive and environmental factors affecting language production. Much research in this area has focused on the evidence of language mixing in the oral production of bilingual children. While it has been argued that language mixing may indicate an inability on the part of the bilingual to differentiate between two language systems, there has also been significant research in favor of two differentiated systems that occasionally overlap (Vihman 1985, Genesee 1989, Genesee et al 1995, Lanza 1997). The differentiation between two languages becomes more salient as the bilingual passes from the early stages of childhood acquisition into pre-adolescence and is able to maintain a higher degree of control over both languages.

As the child approaches adolescence, the question of language mixing becomes complicated by social, cognitive, and environmental factors. While mixing can take many forms, lexical and syntactic transfer are two domains in which the interaction between languages is perhaps most salient for pre-adolescent bilinguals. In examining the occurrence of cross-linguistic interference, it is important to assess some of the underlying factors that govern language mixing, namely, language dominance and language preference. While language dominance refers primarily to the linguistic abilities of the bilingual child, language preference suggests a degree of influence from social and environmental factors, including language domain (where the language is being spoken), conversation topic, confidence level, and language of the interlocutor. The frequency with which one language is used over another may also contribute a significant practice effect that permeates both dominance and preference in simultaneous or subsequent situations. This case study examines the oral production of a 10 year-old French-English bilingual in an attempt to determine the nature of cross-linguistic transfer as it relates to language dominance and preference. While a variety of transfer phenomena were observed, this preliminary report focuses on the occurrence of lexical and syntactic transfer in oral language production.

When is cross-linguistic transfer seen in bilingual children?

Crosslinguistic transfer in bilingual speech has been found in a number of different structures, from syntax to phonology. Lexical insertions are among the most observable forms of transfer in that they clearly stray from the norm of the language being spoken. These insertions consist of a word or words from one language used in another language to meet a lexical need and are often differentiated phonologically with pronunciation that

¹ This paper was originally written for TESL 522 Language Acquisition (Fall 2003, Professor Naomi Baron) at American University, Washington, DC.

corresponds to the language of the inserted word. In a study examining the language samples of five Spanish-English bilingual children between the ages of 2;10 and 6;2 living in the United States, Lindholm and Padilla (1977) found that the most common type of mix involved the insertion of single lexical items, most commonly English nouns into Spanish utterances. Most nouns were inserted into a sentence following an article or a demonstrative. Lindholm and Padilla note that while “the children’s choice of number agreement was always correct...the gender of the functors was not always consistent with the gender of the noun” (1977, p. 328). Swain and Wesche (1975) examined the oral production of a three-year old French-English bilingual for instances of lexical mixing. They also found a high frequency of lexical insertions that may be attributed to the cognitive dominance of the word or phrase in one language over the same item in another language: “language mixing consists primarily of isolated words or phrases introduced into a foreign context” (1975, p. 21).

Müller (1998) examines the ambiguity of German complementizers in which a variety of word orders are possible. Her study specifically concerns syntactic transfer in subordinate clauses as a relief strategy used among bilingual children “to cope with ambiguous input” (1998, p. 168). When, as Müller claims, “one of the languages leaves open the possibility for more than one grammatical analysis, the bilingual individual may, in compensation, use parts of the analysis of the second language, that is, s/he transfers parameter values or feature specifications of categories” (1998, p. 168). When the bilingual child encounters such ambiguity in the input language (presumably the child’s dominant language), the ambiguous structure is then transferred to the target language.

Explaining cross-linguistic transfer in bilingual children

Lindholm and Padilla conclude that “bilingual children employ language mixes either when they lack the lexical entry in the appropriate language or when the mixed entry is more salient to the child” (1977, p. 334). Swain and Wesche’s findings echo those of Lindholm and Padilla where lexical substitutions are often due to knowledge of the word in only one language (1975, p. 21). Swain and Wesche take the notion of salience one step further to include sociolinguistic context as a determining factor in lexical choice: “in cases where he knows the word in both languages, the immediate verbal context appears at times to make a word or phrase more available than its counterpart in the other language” (1975, p. 21). In these cases, the child in their study inserted a word used by the researcher in an immediate previous utterance. Given the influence of conversational topic on lexical choice, especially in instances where translation from a previous conversation or event is required, it seems plausible that words or phrases from the original verbal context may play a role in transfer in much the same way.

The influence of sociolinguistic context

Caldas and Caron-Caldas (2000) examine the effects of sociolinguistic context on language use among bilingual children. They look specifically at the influence of family, school, and community on the language preference of three bilingual French-English children. The home domain was predominantly French-speaking, while the community

domain shifted between French and English as the family traveled between French-speaking Quebec and English-speaking Louisiana (2000, p. 365). Two of the children were in a French immersion school program throughout the three years the study took place, while the third was enrolled in an American school. The study uses a domain-sensitive longitudinal measure—the bilingual preference ratio (BPR)—to calculate the children’s overall language preference and their preference in each of the given domains. Fluctuations in BPR indicate that the most significant factor governing language preference is the language spoken in the community (where language preference changes to correspond to the primary language of the community as the subjects moved between Louisiana and Quebec) (2000, p. 373). The children in French immersion school programs, however, exhibited a higher BPR for French while at home in Louisiana. Caldas and Caron-Caldas attribute this finding to the influence of French immersion at school (2000, p. 365). The overall BPR shows a French language preference for these children and an English language preference for the third (2000, p. 376). With respect to language dominance and language preference, Caldas and Caron-Caldas conclude,

The strongest factor influencing the fluctuation in the children’s bilingual preference is the predominant language of the community...bilingual dominance, as opposed to preference, may more narrowly refer to the disproportionate influence that one of a bilingual’s two languages exerts on the other one, perhaps manifesting itself at the level of grammatical structure, vocabulary, or, more likely, both...being in a classroom where only [one language] is permitted is enough to significantly bolster their [use of that language] in the home. First, the language is being legitimated...Second, they are learning certain subjects (and their associated vocabulary) exclusively in [that language]. (2000, pp. 377-9)

In view of the previous research on the nature and occurrence of transfer in the oral production of bilingual children, the current study aims to examine the extent to which lexical and syntactic transfer is governed by language dominance or preference. It is hypothesized that language dominance plays a significant role in determining the nature of transfer while conversation topic is a significant factor governing the occurrence of transfer.

2.0 Research Questions

- 2.1 Is lexical and syntactic transfer in bilingual children more a factor of language dominance or preference? Does the occurrence of transfer appear to be a result of salience (dominance) of a particular lexical item or syntactic structure, or more a result of preference according to the language context (see below).
- 2.2 Is conversation topic a significant factor in governing transfer? Specifically in cases where the conversation topic is relevant to the language used (e.g. school in the US, a trip to France), is there a greater occurrence of transfer when the language does not match the language of the original conversation or cultural situation.

3.0 Hypotheses

- 3.1 The nature of lexical and syntactic transfer is significantly affected by language dominance/salience, i.e. in cases where the child knows the word in only one language, or where the context in which it was learned (e.g. school) renders the word more salient in one language.
- 3.2 Conversation topic, specifically the retelling of events that originally took place in English, is a significant factor governing the occurrence of transfer. Transfer in these cases may be a result of translation attempts when recalling events.

4.0 Method

4.1 Subject²

The data for this study were drawn from a corpus collected over a period of two months from a female French-English bilingual child, Olivia, age 9;10-10. Olivia was born in Paris to a French middle-class couple now in their forties. Both parents are native speakers of French, near-native speakers of Spanish, and are fluent in English in addition to several other languages. Both parents also hold advanced degrees from European and American universities. The father works in international trade and the mother pursues academic studies in religion. Olivia has one younger brother, Pierre, age 6. Olivia spent the first month of her life in France with her mother before returning to Spain where the family was living at the time. Olivia's mother then returned to work and Olivia spent the majority of her days with a Spanish monolingual caretaker. She was five months old when her parents moved to New York. When they first arrived in the US, the family returned to France several times a year to visit family and friends, and Olivia maintained friendships with a number of French-speaking peers in the US and abroad. It has been two years since the family has returned to France, and most of Olivia's current friends are American monolinguals. The family has plans to travel to France shortly after the last recording session, and research will continue immediately after Olivia returns from France to examine the effects of this travel on her language.

Upon arriving in the US, Olivia had access to English through family friends and American monolingual playmates, although the primary language spoken in the home was French. Their mother has stayed home with both children while pursuing a Master's degree and PhD in the US. During the 7 years that the family was in New York, they lived in a predominately French-speaking neighborhood. At 2;9 Olivia attended an American nursery school for two mornings a week. She also attended an American school for pre-kindergarten the following year. For Kindergarten, she attended the French-American school in New York (80% French language instruction) where she formally learned her letters, numbers, and handwriting in French.

The family moved to Washington, DC when Olivia was 7 years old and she began first grade at an English-only public school in Georgetown. During the first several years that

² All background information provided in a personal interview with Olivia's mother, Agnes.

the family lived in Washington, DC, Olivia's parents frequently read to the children in French, and she also watched French-language television and videos at least once a week. The researcher has known the subject since her arrival to Washington, DC (approximately four years). At the initial meeting in 1998 and for the following year, Olivia's verbal skills in French far exceeded her skills in English, although it seems as though English has now become the dominant language for both written and oral expression.

Olivia has attended public and private English-only schools from the first grade until now (fifth grade) and has received no institutional French language training since moving to Washington, DC. During the summer between third and fourth grade, Olivia and her mother studied French in the home, using materials from the Centre National d'Enseignement à Distance (CNED), which provides home-study courses for French children living abroad. Olivia is able to write and read in French, although her skills in these areas are well below French national standards for her grade level.³ By the standards set forth by CNED, Olivia's oral production seems to be at least one year below grade level, although much of this may be due to a lack of Cognitive Academic Language Proficiency Skills (CALPS) that would customarily be learned in school. While CNED does not publish standards for Basic Interpersonal Communication Skills (BICS), Olivia's proficiency in this area is perhaps closer to grade level. Her reading, writing and oral production skills in English (both CALPS and BICS) appear to be at or above grade level.

At the moment, French remains the dominant language spoken by both parents in the home, although the children frequently respond to their parent's requests in English. Their father has adopted a strict French-only policy in the home, which is generally adhered to when he is present. Their mother, however, allows the children to speak English from the time they return home from school to when their father returns from work (roughly three hours). From casual observation taken while completing research in the home, it appears that the father does not use English to address the children. Their mother uses a mix of both English and French when addressing the children, which is governed by communicative purpose and her own language ability (e.g. English is used when discussing school work or to facilitate fast comprehension, while French is used to convey more complex or important concepts when the mother lacks the vocabulary in English). Olivia and Pierre interact predominately in English when alone and use a mix of English and French while in the company of their mother. Although the researcher was not able to observe a significant number of interactions with the father, the children used French only to address their father in the conversations that were observed. It is

³ CNED materials are targeted one level above each corresponding year in the French elementary education system so that returning students may potentially hold an academic advantage over their peers while they readjust to life at home. Olivia's mother provided sample materials from CNED for the American equivalent of third grade. At this level, students are required to complete oral tasks such as memorizing and reciting a literary poem or preparing an oral speech giving arguments in favor of protecting the Amazon from hazardous fires (1997, *Agenda de l'Elève*, CNED). While it is important to note that materials from CNED have been critiqued for being overly difficult for each grade level, it is the researcher's opinion that Olivia's inability to complete these tasks may demonstrate that her oral CALPS are below French grade level standards.

assumed however, that they use a mix when in the company of both parents (especially when completing homework assignments and at the dinner table) and that their language use tends to include a greater number of French utterances when he is present.

4.2 Procedure

The stimuli for the corpus consisted of general questions posed by the researcher about school, friends, family, and daily activities to promote free conversation. Recording sessions commenced in French, and the majority of the session continued in French. During both sessions, Olivia made an extended switch (beyond a single word or phrase) to English (1) to describe the plot of a movie she had recently seen, and (2) a longer functional switch to complete several homework assignments for school. Given that recording sessions occurred shortly after Olivia returned home from school, school activities comprised the majority of conversational topics. In final interviews with Olivia and her mother, conversation centered loosely around a set of pre-determined research questions (see Appendix I).

Data for the corpus were collected from two 1.5-2 hour conversations with Olivia. As mentioned above, these conversations were conducted largely in French with two extended switches to English. Information on the family's background, language policy, and language use was collected from a formal interview conducted primarily in English with Olivia's mother, Agnes. Additional observational data on family language use were collected while completing this interview. A separate interview with Olivia was used to collect information regarding her language preferences and attitudes. The duration of each interview was approximately 45 minutes. A subset of the corpus was transcribed and translated by the researcher.

5.0 Results and Discussion⁴

It is important to note that while a significant number of lexical and syntactic violations were found in the data, these violations compromise a minority of the total utterances in French. Preliminary analysis verifies that the directionality of transfer in the data occurs primarily from English to French. While sufficient data were not gathered in this study to adequately compare transfer while speaking English versus French, data from the interview with Olivia show that there is almost no mixing in English. Further observations taken while completing the research show only one limited French-English mix made while recalling a story that originally occurred in French:

⁴ For data samples included here, EW is used to show researcher utterances, O is used to show subject utterances, and A is used to show the mother's utterances. Standard typeface is used to show actual utterances, italics are used to show translation where necessary, and bold is used to show the language mixes in the utterance.

(1)

Context: Olivia is looking at a French magazine featuring her Grandmother's house in France. She is re-telling a story of playing in her Grandmother's garden (original story presumably in French).

EW: How pretty, so do you like to play in the garden there?

O: Well...I don't uh...

EW: Have you been when it's um have you been when it's warm?

O: (to her mother) Have we?

A: Olivia!

O: Yes?

A: When was the last time we were there?

O: Two years.

A: It was Christmas two years ago.

O: But there was no flowers.

A: There was no flowers. It was so cold.

O: It was freezing it was not oh and I wa- I was I'm like I'm like **Maman**, uh Mom, Dad, uh I'm gonna I'm gonna go outside and take a walk...

The most common type of mix involved the insertion of single lexical items, primarily English nouns into French utterances. In all cases the English noun was set apart from the rest of the utterance by phonological differentiation in which American pronunciation of the items was used. This may indicate that the subject is aware of the switch and wishes to distinguish the violation from the rest of the utterance in a process similar to code-switching:

(2)

EW: Et donc qu'est tu fais dans ta cours d'anglais? Tu lis des...(interruption)
And so what do you do in your English class? Do you read...(interruption)

O: Bah, bah on a un gros livre d'anglais et um en fait ils t'appren- ils t'apprends comment les points⁵ et et et les les ex exclamatoires et tout ça.
Well, well we have a big English book and um actually they tea- they teach you how periods and and and the the ex-exclamations and all that.

EW: De de la grammaire ou des histoires?
Of of grammar or stories?

O: bah, il n'y a pas vraiment d'histoires, il y en a comme tous les il y en a une histoire mais on on lit beaucoup d'histoires dans la classe de de um de pas sciences mais um uh, lire, c'est comme ils l'applent **reading** mais bon c'est comme tu tu lit on lis beaucoup d'histoires mais en anglais c'est comme le grammaire et tout ça.
*Well, there aren't really [a lot] of stories, there are some like all the, there is one story but we we read a lot of stories in the class of of um of not science but um uh read, it's like they call it **reading** but well it's like you you read we read a lot of stories but in English it's like grammar and all that.*

⁵ See also sample (13).

(3)

O: J'ai oublié à quelle page, j'ai perdue **le bookmark**...
*I forgot which page, I lost **the bookmark**...*

(4)

O: Je me demande si c'est en ca- cassette maintenant, tu crois?
I wonder if it's on vi- video now, do you think?

EW: Oui. Bah je pense, je sais pas.
Yes. Well, I think, I don't know.

O: Parce que eh j'ai vu d'autres il y a comme Holes et Daddy Day Care et Bend it Like Beckham qui sont déjà sortis. Et ils sont eh ils sont installés dans le- ils étaient sortis dans **les movie theaters**.
*Because eh I saw others, there's like Holes and Daddy Day Care and Bend it Like Beckham which are already out. And they are eh they are in the- they were out in **the movie theatres**.*

The subject also uses frequent false starts, self-repetitions, and lexical fillers (in both English—*um*—and French—*bah* and *eh*) when speaking French. Lexical insertions are surrounded by pauses or hesitation in speech where a lexical filler may be used to pause while attempting to recall the item in French, or to set the insertion off from the rest of the utterance. Some false starts for lexical items begin in English before the French word is uttered:

(5)

EW: Et tu as beaucoup de travail dans cette école?
And do you have a lot of work at this school?

O: Bah quelques fois tu peux avoir beaucoup de travail um pour **le homework** ils te quelques fois ils te donnent vraiment beaucoup beaucoup et maintenant ils te donnent comme...quelques fois c'est tous **les sub-tous les sujets** mais maintenant c'est comme...
*Well, sometimes you can have a lot of work um, for homework, they sometimes give you really a lot a lot but now they give you like...sometimes it's all **the sub- all the subjects** but now its like...*

(6)

Context: Olivia is describing the plot of a book she recently read in English.

O: C'est en fait une petite eh une petite eh poupée qui qui s'est trouvée s'a **aunt-sa eh tante** qui est qui en fait qui elle trouve dans **le attic**.
*It's actually a little eh a little eh doll who who she finds her **aunt her eh aunt** who is who actually she finds in the attic.*

Many noun insertions are fronted by correct French masculine and feminine articles for the target word in French (see also **le homework** above). Lindholm and Padilla assert that the correct usage of gendered articles may indicate that the subject does not know the corresponding French noun and is “assigning the functor’s grammatical gender according to [her] own interpretation of the noun’s natural gender” (1977, p. 331). The findings in this study, however, contradict those of Lindholm and Padilla where number agreement was found to be consistently correct and gender was occasionally mis-assigned (1977, p. 329). In (5) above, the use of the singular article “le” is incorrect (*homework*-les devoirs), while the assignment of masculine gender (also shown in (3), (6), and (7)), is correct:

(7)

Context: Discussion of a guesthouse that is to be built behind the family’s home.

EW: et donc ça soit une maison de de d'un seul étage, ou plusieurs?
And so it will be a house with with with only one floor, or many?

O: Deux étages.
Two floors.

EW: deux étages?
Two floors?

O: oh peut-être je (ne) suis pas pas très sûre mais je sais qu'il qu'on va avoir
 uh um deux étages, ça c'est ça c'est sûre, et peut-être on va avoir **un** um **attic**
 en dessous...
Oh, maybe I'm not not really sure but I know that there that we will have uh um two floors, that's that's for sure, and maybe we will have a um attic on top.

Some of these lexical items do not exist in French (e.g. *kickball*), or would require lengthy descriptive phrases instead of a single lexical item (e.g. *playground*-le cour de recreation). In the case of *playground*, it may be argued that the French equivalent may not in fact be used by a native speaker. In recent years, despite language preservation efforts of the French government, the French language has increasingly adopted English lexical items that offer economies over French equivalents; *playground* is one such case. This item is included in the data as a transfer due to the phonological differentiation of the word as an English lexical item:

(8)

EW: Et uh tu fais des sports?
And, uh, do you do any sports?

O: eh bah bah à la ré- a la récré tu peux faire comment qu'est ce tout que tu veux comme tu peux faire du basketball, du foot, a la **récesse**⁶ j'aime jouer um um **kickball**

*Uh, well, well at re-at recess you can do whatever you want like you can do basketball, soccer, at recess I like to play um um **kickball**.*

EW: Oui?
Yes?

O: Oui, j'aime bien beaucoup ça⁷. Et après, il y en a qui qui parle et qui reste par chaises. Il y a des banques partout, il y a des banques, il y a il y a um l'église qui est juste à coté parce que je vais dans-il y a un église qui est avec notre école et nous um **le playground** c'est c'est juste à coté de le l'église alors il y a des banques et des et tout ça.

*Yes, I really like that a lot. And after, there are some who who talk and who stay on chairs. There are benches all over, there are benches, there is there is a church that is right next (to the school) because I go in-there is a church that is with our school and we um **the playground** it's it's just next to the church so there are benches and all that.*

Many of the data also show ambiguous description of single lexical items, which may indicate a lack of knowledge of these words in French. In (9) the lexical equivalent for *schedule* in French would be “un emploi du temps” or “le planning,” in (10) the lexical equivalent for *neighbors* is “les voisins.” In these cases, Olivia describes the semantic meaning of the French word using a longer phrase, which is often accompanied by descriptive gesture. Note that in (9) she also calls attention to the fact that she cannot recall the French equivalent of *library*⁸:

(9)

EW: Et eh donc toi tu changes de classe ou les profs viennent chez toi?
And uh so do you change classrooms or do the teachers come to you?

O: oui, eh non. non on change de classe tu vas on on a une chambre qui est tou- juste à la classe alors on lit comme à la fin de la journée on on lit on lit um notres hist- notre livre et on apprend de la um eh des solutions. Mais il y a pleins de livres. C'est pas vraiment une library mais um c'est un peu comme ça mais c'est juste plein de livres. Il ne l'appelle pas **la library, j'ai pas comment ils l'apellent, j'ai complètement oublié**, mais um bah oui on a une classe on fait pleins de choses, on fait tous notres choses et après toutes les quarante-cinq minutes on va d'une classe et après là et ils te donnent un **une grosse page um jaune avec après t'as besoin d'aller là et là** [pointing repeatedly into her hand as though it were a piece of paper].

Yes, uh no. No, we change classrooms you go we we have one room that is all-just for the class so we read like at the end of the day we we read we read um our stor- our stories and we learn solutions. But there are tons of books.

⁶ Ambiguous pronunciation shows a mix of French (*la recre*) and English (*recess*) phonological representation.

⁷ See also sample (12).

⁸ *Library* is a false cognate in French; “*librarie*” which shares orthographic and phonological similarities with the English equivalent means *bookstore*. The correct term for *library* in French is “*la bibliotheque*.”

*It's not really a library, but um it's a little like that but it's just full of books. They don't call it the library, I don't know what they call it, I've completely forgotten, but um well yes we have a classroom, we do lots of things, we do all our things and after, every forty-five minutes, we go to one class and then after there and they give you a **a big um yellow paper with after you have to go there and there.***

(10) [continued from (7) above]

O: mais c'est pas tr- encore sûre pour pour l'avoir parce que on on a besoin de demander à um um **les personnes qui habitent là et là et là** [pointing to the surrounding houses] et pour savoir si ça va avec eux et um si um si **le government**⁹ nous laisse.

*But it's not rea- yet sure to to have it because we we need to ask um um **the people who live there and there and there** and to know if it's ok with them and um if **the government** will let us.*

In a few instances, Olivia overtly questioned the meaning of lexical items, which may indicate that she does not know these words in French. While reviewing CNED materials during her mother's interview, Olivia repeatedly questioned several words from the text that her mother called attention to. In the case below, Olivia asks for clarification of a term used by the researcher (clarification was provided using a descriptive phrase in French):

(11)

EW: Et tu dois faire **des dissertations**?
And do you have to do essays?

O: eh bah, c'est quoi exactement?
Uh well, that's what exactly?

Although much more rare, transfer of English syntax to French utterances that result in incorrect French syntax (e.g. j'aime bien beaucoup-*I really like it a lot*, where the use of both bien and beaucoup is not permitted in French) was also observed. This example resonates with Müller's conclusion that bilingual children employ transfer as a relief strategy when faced with ambiguous input. As an input language, the fact that English does allow multiple adverbs to modify one verb might account for the use of two adverbs in (12) below:

(12)

EW: et t'aimes ta ta nouvelle école?
And do you like you're your new school?

O: ah ouay, oui **j'aime bien beaucoup**, l'autre qui est devant ba si, ba j'ai pas mais maintenant on dirait que les per- les personnes sont plus en plus méchants avec moi.

*Uh yeah, yes **I really like it a lot**, the other one which is in front well yes well*

⁹ English pronunciation although the French word --*le gouvernement*-- is a cognate.

I dunno but now they say that the pe- the people [there] are more and more mean to me.

Additional syntactic violations were observed in the omission of adverbs (*there* (12)), or verbs (*to use*, below). These items are included in the results to show evidence of syntactic violation, but cannot be solidly identified as transfer because the error represents a violation in both English and French. Further analysis of the data is needed to determine whether there is a pattern of such omissions, and what significance such a pattern may represent:

(13)

EW: Et donc qu'est tu fais dans ta cours d'anglais? Tu lis des...(interruption)
And so what do you do in your English class? Do you read...(interruption)

O: Bah, bah on a un gros livre d'anglais et um en fait ils t'appren- **ils t'apprends comment les points** et et et les les ex exlatores et tout ca.
*Well, well we have a big English book and um actually they tea- **they teach you how [to use] periods** and and and the the ex-exclamations and all that.*

Instances of ambiguous syntactic structure in the form of awkward sentence construction were also observed. Again, these violations constitute ambiguity in both English and French and would therefore be difficult to label as actual transfer without further analysis. It is the researcher's opinion that a variety of affective factors may have influenced the occurrence of syntactic ambiguity as most cases are clustered towards the beginning of each session. Nervousness, excitement, and lag time in switching from English (used all day at school and just prior to the recording session) may have contributed to the awkwardness of initial sentence structure.

From the data collected above, it appears that lexical transfer is the most frequent and observable interaction between French and English in Olivia's oral production. Of these, insertion of single lexical items, mainly English nouns into French utterances, represent the majority of lexical transfers. In all cases, the lexical item was phonologically differentiated which may be an effort on the child's part to indicate that she is aware that the word she is using is not French. It is difficult to tell whether she knows these words in French, since the use of pausing and lexical fillers immediately surrounding these words may be employed in an attempt to recall the word. Many of these lexical interjections are associated with school (e.g. *homework* and *government*) and although they are high-frequency words that she may know, the fact that she typically uses these words in English may make the English equivalents more salient. In her interview, Olivia confirmed that there are some lower-frequency words that are difficult for her to remember; "sometimes I forget the [French] words and I know them. Like 'hat' would be really easy for me in French because I never really forget about it and like the words like um like 'umbrella' I can forget really easily. Like the words you don't hear all the time" (Dec. 14, 2003). This is likely to be the case for *attic* and *bookmark* in the event that these are known words in French.

The use of *playground* and *kickball* could be explained by the fact that these words would also be used in French. The difference here is that she applies American pronunciation to these words and therefore sets them apart from the rest of the utterance. The use of *library* is most likely a confusion with the English cognate and Olivia shows signs that she does indeed know the correct word—*bibliothèque*—by commenting that she has “completely forgotten” what it is called (Sample (9)).

Ambiguous lexical items, in the case of *schedule* and *neighbors* present further problems for analysis. Although it seems as though her description of these terms in French might indicate a lack of knowledge of the word in French, they are nonetheless high frequency words that her other language abilities indicate she might know. Further research is needed to determine her knowledge of these items, and could perhaps be accomplished in the form of questions designed to elicit these exact words. In cases where she overtly questions the meaning of a lexical item in French (e.g. *essays*), it is fairly clear that she does not know the word, although salience, as outlined by Lindholm and Padilla, may also play a role.

It is important to note that conversation topic during the majority of the sessions was focused on events that originally occurred in English (e.g. school, American books and films, and extracurricular activities). On only one occasion was an event that occurred in French reported (Sample (1)), and in this case Olivia began in French and then switched immediately to English. This could have been a result of the surrounding English utterances, although it is interesting that she chose to begin in French at all. Conversation topic appears to be relevant especially as an effect of translation as seen in (5) and (6) where there is a false start in English followed by the French lexical equivalent.

As mentioned in the results above, the data do not present adequate examples of syntactic transfer to indicate that the nature of such transfer might be attributable to either language dominance or language preference. Although the occurrence of “bien beaucoup” may be a result of ambiguity in English and therefore point in favor of language dominance, this structure seems to be one of the only occasions where direct syntactic transfer is observable.

6.0 Conclusions

Given the above considerations, it appears that Hypothesis 1, “The nature of lexical and syntactic transfer is significantly affected by language dominance/salience,” cannot be directly proven. Notwithstanding, there is considerable evidence that the child’s dominant language is English. Frequent false starts and self-repetitions in French (to a far greater degree than in English) may indicate that the child has difficulty recalling and composing in French. The fact that she spends the majority of her days conversing in English at school also points to a practice effect that would further support English as the dominant language.

Insofar as the majority of conversation topics focused on events that originally took place in English, it appears that there is preliminary support for Hypothesis 2, “Conversation

topic, specifically the retelling of events that originally took place in English, is a significant factor governing the occurrence of transfer. This may be a result of translation attempts when recalling events.” However, since relatively few conversational topics included events that originally occurred in French, further research would be needed to confirm this hypothesis. As mentioned above, the family will travel to France shortly after the conclusion of data collection. The researcher will revisit the family the day after their return to the US to assess the effects of an increase in French language practice on the nature and occurrence of language mixing. This visit will also provide the opportunity to further test Hypothesis 2 as the majority of events during the family’s trip will occur in French.

Despite the inconclusive findings of this study, there is a great deal of interaction between French and English in Olivia’s oral language production that seems worthy of closer analysis. Language policy issues in the home could have a significant effect on language choice and confidence and may alter the way transfer is used in her language. Language ability of the interlocutor will also have a very likely effect on the occurrence of transfer in conversation with monolinguals versus bilinguals. The difficulty in showing a clear relationship between transfer and language dominance and preference in this study is echoed in an excerpt from Olivia’s interview:

Well, you see, I kinda like speaking both languages. French is enjoyable and I'm thankful I can speak it but um, I mostly like to speak English and I'm used to it and at school we mostly talk English and there's no second language so... Sometimes I like to speak English better cause I get sometimes tired of speaking in French and I get forced to do it. And sometimes I get so mixed up with both of them I speak half and half...but I don't know which one I would like better cause I'm here in America so I mostly speak English all the time....I like a lot both langu- both languages, French and English, but I think I like English a lot better because I'm not forced to speak English. Because when I'm forced, I struggle and it gets annoying and I get all mad... but sometimes I don't feel like speaking English and I just feel like speaking French but when I feel like speaking French I just end up speaking fifty-fifty (Dec. 14, 2003).

References

- Caldas, S. & Caron-Caldas, S. (2000). The influence of family, school, and community on bilingual preference: Results from a Louisiana/Quebec case study. *Applied Psycholinguistics* 21: 365-81.
- Centre National d'Enseignement à Distance (CNED). (1997). *Nature à lire: Agenda de L'Elève* (Cycle 3 1ere année CE 2). Cahors, France: L'Imprimerie France Quercy.
- Genesee, F. (1989). Early Bilingual Development: One language or two? *Journal of Child Language* 16: 161-79.
- Genesee, F., Nicoladis E., & Paradis, J. (1995). Language Differentiation in early bilingual development. *Journal of Child Language* 22: 611-31.
- Lanza, E. (1997). *Language Mixing in bilingual children*. (Oxford studies in Language contact.) Oxford, Clarendon: Oxford University Press.
- Lindholm, K. & Padilla, A. (1977). Language mixing in bilingual children. *Journal of Child Language* 5: 327-35.
- Müller, N. (1998). Transfer in bilingual first language acquisition. *Bilingualism: Language and Cognition* 1(3): 151-71.
- Swain, M. & Wesche, M. (1975). Linguistic interaction: Case study of a bilingual child. *Language Sciences* 37:17-22.
- Vihman, M. (1985). Language differentiation by the bilingual infant. *Journal of Child Language* 12: 297-324.

Appendix I: Interview Questions

Interview questions for Olivia:

1. Do you prefer to speak one language over the other?
2. If so, when? Does it change according to conversation topic?
3. When do you speak French?
4. With whom?
5. Do you write and read in French?
6. How do you feel when you speak French? Is it harder or easier than speaking English? Do you feel like you have a different personality?
7. When your parents speak French to you do you answer in English or French?
8. Do you always understand what your parents say in French?
9. Do you always understand what your friends say in English?
10. Do you feel like you know as many words in French as you do in English? Are there any words that are a lot harder?
11. Do you and Pierre speak English or French together?

Interview questions for Agnes (Olivia's mother):

1. How old was Olivia when you came to the US? Was she in France before then, or did you also live in Spain?
2. Did she study English at all before coming here?
3. How old was she when she first attended school in English?
4. Did she ever attend a bilingual school?
5. Did she complete any school in French?
6. What language is predominantly spoken in the home?
7. Do the kids respond more in English or in French?
8. Does Olivia always understand what you say in French?
9. When you talk about school, is it in English or French?
10. Do you think that Olivia's spoken French is at grade level?
11. What have you noticed about the way her language has changed over the past few years?
12. What language do Olivia and Pierre interact in?
13. Do they tend to speak one language more to you or Philippe?
14. When was the last time the family was in France?
15. Are most of Olivia's friends American?