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Family Language Policy: Parental Discourse Strategies and Child Responses

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Abstract

Using transcribed data from six Spanish-English bilingual children (1;8 to 3;3) from the Perez corpus in the CHILDES database, this thesis examines Parental Discourse Strategies (PDS) used to influence child language use in a minority language context (Spanish in the United States). PDS (Lanza, 1992; 1997) are situated within a language socialization framework (Ochs & Schieffelin, 2011) and can be viewed as part of the emerging field of family language policy (King & Fogle, 2013; Schwartz, 2010). This study looked at the overall language use, including the frequency and complexity, of English, Spanish, and mixed utterances by each parent and child in the corpus. The presence and rate of use of the PDS was calculated, as well as their successfulness in encouraging the children to use the minority language, as measured by the language of response to each PDS found. These strategies have been placed on a monolingual to bilingual continuum (Lanza, 1992) based on their expected success in influencing a child to use the language preferred by their parent. Results from a descriptive quantitative analysis of the data at the group and individual levels generally support the Parental Discourse Hypothesis, that is, the claim that certain strategies are more effective than others. Interestingly, it was found that the more successful strategies were used less frequently by the parents, while the less successful ones were more common. This apparent contradiction can be explained by conflicting pressure on parents to promote minority language use while also keeping fluid communication and preserving family harmony. This is discussed and further supported by some qualitative observations of child responses within discourse samples, highlighting children's role as agents capable of negotiating their own linguistic socialization.

Résumé

Cette étude porte sur l'utilisation globale de la langue, y compris la fréquence et la complexité de l'anglais, de l'espagnol, et des énoncés mixtes par chaque parent et enfant dans le corpus. Pour ce travail, nous avons utilisé des données transcrites à partir de six enfants bilingues espagnol-anglais (1;8-3;3) à partir du corpus Perez dans la base de données CHILDES. Cette thèse examine les stratégies de discours des parents (SDP) utilisées pour influencer l'utilisation de la langue des enfants dans un contexte de langue minoritaire (l'espagnol aux États-Unis). Les SDP (Lanza, 1992; 1997) sont situées dans un cadre de socialisation de la langue (Ochs & Schieffelin, 2011) et peuvent être considérées comme faisant partie du champ émergent de la politique linguistique familiale (King & Fogle, 2013; Schwartz, 2010). La présence et le taux d'utilisation des SDP ont été calculés, ainsi que leur capacité de réussite, afin d'encourager les enfants à utiliser la langue minoritaire, telle que mesurée par la langue de réponse à chaque SDP trouvée. Ces stratégies ont été placées sur un continuum monolingue à bilingue (Lanza, 1992) fondées par leur succès attendu en influençant un enfant à utiliser la langue préférée par son parent. Les résultats des données d'une analyse quantitative dans le domaine des groupes et des individus s'appuient généralement sur l'hypothèse du discours parental, qui est, l'affirmation selon laquelle certaines stratégies sont plus efficaces que d'autres. Il est intéressant de constater que les stratégies les plus efficaces sont utilisées moins fréquemment par les parents, tandis que les stratégies les moins efficaces étaient plus couramment utilisées par ceux-ci. Cette contradiction apparente peut s'expliquer par des pressions contradictoires sur les parents pour promouvoir l'usage de la langue minoritaire tout en gardant une communication fluide et en préservant l'harmonie familiale. Cela est examiné et appuyé par quelques observations qualitatives des réponses des enfants dans les échantillons de discours, mettant en évidence le rôle des enfants en tant qu'agents capables de négocier leur propre socialisation linguistique.

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List of Acronyms

CA	Conversation Analysis
DA	Discourse Analysis
MED	Mixed: English Dominant
MSD	Mixed: Spanish Dominant
PDS	Parental Discourse Strategy

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Chapter 1: Introduction

1.1 Overview

When communicating with their bilingual children, many parents¹ will attempt to influence the use of a specific language over another, whether to aid in their child's second language acquisition or for minority language maintenance. This can happen in many bilingual² situations, but is particularly prevalent when dealing with a bilingual setting where children are exposed to the majority language within the community and the minority language in the home with one or both parents (Lanza, 2004). Although these children may be learning two languages from a young age, simultaneous acquisition of two languages does not ensure proficiency in both - usually one dominates (Dopke, 1992). In many cases, there is a tendency for these children to use the majority language outside of the home (Lanza, 2004), and in order for them to become or stay bilingual to some degree, parents may attempt to influence them to speak the minority language in the home. This issue is part of a child's *language socialization*, or how they begin to become an active member of their speech community through their language learning and use (Fogle, 2012; Howard, 2014; Ochs & Schieffelin, 2011). In the research of childhood bilingualism, there have been many investigations done on the strategies used by parents in naturalistic settings aimed at supporting bilingual development (Lanza, 1997, 2004; Mishina, 1999; Slavkov, 2014; among others). These strategies are known in the literature as *parental discourse strategies* (henceforth PDS) and have been seen used by parents of children of various ages, beginning as early as the first stages of language development (Lanza, 1997). These PDS are used by

¹For the purposes of this thesis, 'parents' will be used to refer to parents, guardians, and/or caregivers.

²Although this applies to the learning of multiple languages as well, this thesis will be focusing on childhood bilingualism only.

the parents both consciously and subconsciously (Lanza, 1997) when communicating with their children and can be seen as part of a larger, relatively recently defined field of study, *family language policy*, which deals with the explicit or implicit ‘rules’ or ‘patterns’ regarding language use between parents and their children (King, Fogle, & Logan-Terry, 2008; Romaine, 1995; Schwartz, 2010; Spolsky, 2004).

1.2 Issue Propelling this Study

Although there have been many studies related to family language policy and the use of PDS used to encourage the use of particular languages in the home (Juan-Garau & Perez-Vidal, 2001; Lanza, PDS1997, 2004; Min, 2011; Mishina, 1999; Nicoladis & Genesee, 1998; Slavkov, 2014, among others), the literature is inconclusive, with some studies showing evidence for the usefulness of PDS in encouraging the use of the minority language and others not. Additionally, looking at the language of response is of interest in this study as it may give insight into how young children play an active role in their bilingual language development, positioning themselves as active agents of their own language socialization.

1.3 The Current Study: Description and Rationale

In this study, I will explore the various strategies used by parents when attempting to solicit the desired use of the minority language, Spanish, from young children ages 1;8 to 3;3 living in the United States. I will note the strategies used by parents when interacting with the children to see the frequency in which these strategies are used, as well as which particular strategies have a better success rate, as measured by the child’s use of the minority language in response. In addition, I will also look at the children’s responses to the parents to explore if children at such a young age are also active in the formation of the family’s language policy. As mentioned, although the topic of PDS has been researched considerably, to my knowledge

there has been less research with a focus on the effectiveness of these strategies and how the children respond to them, viewing them as agents of their own socialization.

I chose to do this study as I have worked with many bilingual children and have witnessed their parents, grandparents, etc. attempt to communicate with them in their native language, only to have the children respond in the majority language of their community. Living in a multicultural country such as Canada, I have many friends who wish their parents had encouraged them to speak their native language as they feel they cannot fully connect with their parents or their minority language speech community not having retained sufficient competence in the minority language. I feel it is important for parents to pass down elements of themselves and their native culture to their children, many of which can be transmitted via their native language. I recognise that this can be very difficult when living in communities where their native language is not the majority language, and especially difficult when there is little to no minority language support within the community. My hope is that this study can not only contribute research related to PDS and family language policy, but also give insight to parents to best use PDS with the existing literature on minority language maintenance and family language policy.

1.4 Objectives

This study has three main focuses. The first is to see which PDS may be used by the parents when encouraging the use of the target language. The second is to see how the children respond to each PDS used. Building on this second objective, the final goal of this study is to see if the children's language of response could be used to determine which of the PDS used by the parents were the most successful in encouraging the child to use the target language.

These objectives were met by studying the '*Perez*' corpus found on the CHILDES database (see chapters 2 and 3 for more details). This corpus was compiled by María Jesús

Pérez-Bazán and used in her 2005 study, *¿Qué será, sera?: A Methodological Tool for Predicting Early Bilingualism in a Family Setting*. When analysing this corpus, first the language of utterance for each participant was coded as Spanish, English, or mixed and the complexity measured by the mean length of utterance in words. The PDS used by the parents to influence the child's use of the minority (target) language were then coded, as well as the child's language of response to the strategies used. The language of utterance and child responses were then used in unison to measure the success of the PDS in influencing the child to use the minority language.

1.5 Research Questions

In order to help reach these objectives, the research questions for this study were:

1. What was the frequency and complexity of use of the majority and minority languages by the parents and children in the corpora?
2. Which parental discourse strategies were used by the parents, if any, to encourage the children's use of the minority language and what was the language of response of the children?
3. Based on the language of response of the children, which of the parental discourse strategies used were the most successful in encouraging the use of the minority language?

1.6 Thesis Overview

In order to provide the necessary theoretical base for this study, an overview of the relevant fields of study will be discussed in chapter 2, including bilingual first language acquisition, language socialization, minority language maintenance, family language policy, and PDS. The methodological framework of the research project will be described in chapter 3, along with a review of current practices in discourse analysis and corpus studies. In chapter

4, results will be reported followed by discussion of the findings in chapter 5, including both quantitative and qualitative observations. Finally, the limitations of the study and suggestions for future research will be presented in chapter 6.

1.7 Contributions

This study can contribute to the fields of study of minority language maintenance and family language policy as the examination of the child responses to the PDS used show which strategies proved influential in encouraging the children to use the minority language with their parents. The data offers interesting insights into the conflict parents face when attempting to transmit a minority language while communicating efficiently and harmoniously as a family. It can be useful for parents wishing to raise their children bilingually in situations with little or no minority language support from the community as it sheds light on PDS and how they can best be used in conversation with their children in order to encourage the use of the minority language, as well as the challenging reality of minority language maintenance.

Chapter 2: Literature Review

2.1 Introduction

The objectives of this study were to see which PDS were used by parents and the language of response they evoked from their bilingual Spanish/English children in order to determine which PDS were most successful overall. This topic therefore touches on various areas of study, including *bilingualism as a first language*, *language socialization*, and *family language policy*, as well as *PDS*. As the larger speech community of the children is monolingual with a majority language (English) different than that of their families (Spanish or Spanish and English), discussion of how these PDS play a role into *minority language maintenance* is also required. Finally, given the nature of the data and its analysis, a brief overview of the study of *discourse analysis* as it pertains to this study is covered.

2.2 Bilingual First Language Acquisition

Bilingual first language acquisition (BFLA), *early bilingualism*, and *simultaneous bilingualism* all refer to the acquisition of two languages from birth. This bilingual acquisition is a product of the exposure to the two languages, most often in the home with the child's parents and/or main caregivers. Language input, however is more than just the amount of exposure to each language. When we are focusing on the early language socialization of bilingual children, in addition to the amount of exposure, the strategies of language use in the home are of special importance (cf. Dunn, 1988). Reports on language choice strategies promoting the simultaneous acquisition of two (or more) languages date far back in the literature, beginning when the classical Grammont Formula, *une personne, une langue* [one person, one language], appeared in the bilingualism literature at the turn of the century. Grammont (1902) held that separating the two languages by interlocutor from infancy would help the child learn both languages without additional effort or confusion. Grammont advised

Ronjat on his 1913 case study describing a German speaking mother and French speaking father raising their child in a French community, introducing the concept of *one parent, one language* (one of the most often reported strategies in infant bilingualism (Lanza, 2007) and will be discussed further below), separating the two language systems. There have been studies that have both supported and disregarded the idea of bilingual children having separate language systems, and three general hypotheses surrounding childhood bilingualism and the child's ability to differentiate between the two languages have been proposed. Hoff (2009) lists these hypotheses as:

1) The *fusion hypothesis*: Children initially create one system that combines the two languages they hear.

2) The *differentiation with autonomous development hypothesis*: Children differentiate the two languages they hear and acquire each uninfluenced by the other.

3) The *differentiation with interdependent development hypothesis*: Children differentiate the two languages they hear, but the course of the development of each is influenced by the other.

There is evidence that supports the idea of early differentiation, but suggests that there are influences of one language on the other over the course of the child's bilingual development (Hoff, 301) and has been seen in phonological, lexical, and morphosyntactic areas of development.

On a phonological level, the main question of if children exposed to two different languages from birth develop two distinct language systems or not focuses on the processing and production of speech (Hoff, 2009). Studies have shown that children begin to process language-specific speech around 6 months of age and that their ability to distinguish between two different languages appears to follow a developmental course that is different than that seen in monolingual infants (Hoff, 2009). Bosch and Sebastián-Gallés (2003) have shown

that newborns can distinguish languages different in their rhythmic or prosodic structure, for example, English and Japanese, but cannot distinguish those with similar rhythmic structure, such as English and Dutch or Spanish and Italian. Pearson, Fernández, and Oller (1993) claim that the bilingual child's ability to understand each of the two languages may be comparable to that of a monolingual child's.

In regards to lexical differentiation, Hoff (2009) cites the degree of overlap between the lexical items in each language that a child has in their vocabulary. Operating on the principle of mutual exclusivity, if a child has only one language system, they should therefore only have one word per concept, rejecting any other words that mean the same thing, regardless of the language. For example, if a child learning English and Spanish learns the word '*cat*' to represent the family's pet, the principle of mutual exclusivity applied to a single language system would deem the Spanish equivalent '*gato*' as redundant and the lexical item would not be stored. Au and Glusman (1990) have shown that children do in fact override this principle if they are aware that both words come from separate languages. Further lexical findings suggesting two separate systems include Pearson, Fernandez, and Oller (1995), and Petitto et al. (2001).

Morphosyntactic differentiation, according to Hoff (2009), is the heart of the issue of whether bilingual children develop separate systems for each language or not. This idea focuses on language mixing, because, in theory, if children have two separate systems, the two should not be able to mix and allow for the formation of sentences that adhere to the grammatical rules of each language. De Houwer (2005) concluded that based on a child's ability to mix lexical items but keep the grammatical rules separate, there is no evidence of a single, fused system. According to Hoff, the current consensus among researchers is also that children do differentiate the morphosyntactic systems of the two languages they are acquiring (2009).

2.2.1 Similarities and Differences Between Bilingual First Language Acquisition and Monolingual First Language Acquisition

Genesee and Nicoladis (2006) mention the similarities in BFLA and monolingual first language development (MFLA), starting with the fact that in spite of less exposure to each language, bilingual children reach a number of important linguistic milestones within the same age span as monolingual children. For example, the onset of canonical babbling (alternations of vowels and consonants clusters) (Oller, Eilers, Urbano, & Cobo-Lewis, 1997) and babbling patterns in context (Poulin-Dubois & Goodz, 2001) were the same for both monolingual and bilingual infants, as well as the timeframe for the production of first words (Nicoladis & Genesee, 1997). They note that the overall rate of vocabulary growth is the same (Pearson, Fernández, Lewedag, & Oller, 1997), although the growth in each language may vary. Paradis and Genesee (1996) also note that the morpho-syntactic development of bilingual children resembles that of their monolingual peers and happens within the same timeframe, at least in their dominant language. In addition to language development, bilingual children's language use is subject to the same overall socialization processes as monolingual children (Lanza, 1997), including language appropriateness in both context and with different interlocutors.

De Houwer (2009) summarizes similar findings as well, stating that bilingual development for children regularly addressed in two languages from birth is identical to that of monolingual children, and provides milestones in BFLA children's early language development (p. 38) as shown in table 2.1.

Table 2.1. De Houwer's (2009) BFLA Early Language Development

Age	Milestone
6 to 12 months	Babbling in syllables
12 months	Comprehension of many words and phrases in each of two languages
Soon after 12 months	Production of what sounds like single words in one or two languages
18 to 24 months	Noticeable increase in the number of different words produced
Around 24 months	Production of combinations of two words in one breath
30 to 36 months	Production of short sentences with at least some bound morphemes
Around 42 months	Child is mostly understandable to unfamiliar adults who speak the same
Around 48 months	Production of complex sentences
54 to 60 months	Ability to tell a short story that hangs together and/or closed class grammatical words language(s)

Genesee and Nicoladis (2006) note that the differences in BFLA and MFLA mainly include differences in lexical development. Differences in vocabulary depth and breadth in each language can be attributed to variations in frequency and context of exposure (Pearson et al., 1997). For example, assuming a one person one language model, if one parent spends more time at home with the child during the day, they may speak more about things related to the home environment, such as food, household chores, etc., whereas the parent who sees the child only in the evenings after work may speak more about the names of toys, animals, bedtime items, etc. Differences in vocabulary can also be attributed to differences in interlocutors. De Houwer (1990) reasons that these differences are due to the fact that different people talk about different things based on interests, such as one parent talking more about sports and the other more about nature. Doyle, Champagne, and Segalowitz (1978) found that although the monolinguals in their study had a greater number of different words, the bilinguals had a superior verbal fluency when telling stories.

In addition to the similarities and differences of bilingual and monolingual first language development, Genesee and Nicoladis (2006) note that bilingual first language learners also become proficient in additional skills needed to use two languages. They

mention that from an early age, bilingual children know when and with whom to use each language. If children code-mix or code-switch³, they develop the knowledge as to when it is appropriate to do so, even with unfamiliar interlocutors. In addition, bilingual children are also able to identify communication breakdowns due to inappropriate language choice and develop strategies for repairing these breakdowns (Genesee & Nicoladis, 2006).

2.2.2 Normal Variation in Bilingual First Language Acquisition and Monolingual First Language Acquisition

De Houwer follows the summary in table 2.1 of BFLA milestones by noting that there is normal variation in both BFLA and MFLA development. These differences include how many words children know, how talkative they are based on personality differences, how clearly they speak, etc. For example, the normal age range for creating word combinations spans the course of 6 months: from 18 to 24 months. This means that some children will reach this milestone by a year and a half, while others may only start at two years. This normal variation, according to Patterson (1998), is the same for MFLA and BFLA children. De Houwer (2009) notes that within the normal variation pattern, both BFLA and MFLA children who develop faster have an advantage over those who take more time, especially when it comes to word learning. Citing Marchman, Martínez-Sussmann, and Dale (2004) and Hart and Risley (1995), De Houwer further states that there can be vast differences between bilingual toddlers in the number of words they say, and that along with MFLA learners, the variation in the numbers of different words children produce at 36 months become even greater as they age. Regardless, De Houwer shows that physical, neurological, or social issues play more of a role in the lack of language development than the number of languages

³ Although sometimes used interchangeably in the literature, for this thesis, *code-switching* is the use of, or alternation between, two or more languages within a conversation, whereas *code-mixing* refers to the mixing of two or more languages in a single sentence (or *intrasentential code-switching*) only.

a child is learning, and that both BFLA and MFLA children will learn to speak quite well by age five.

2.2.3 Summary

Bilingual first language acquisition refers to the acquisition of two languages from birth as a product of the exposure to the two languages. The argument of whether bilingual children have a single language system or two separate language systems has been greatly investigated, with the current consensus among researchers being that there are two systems with influences on each other. There have also been many studies done looking at the similarities and differences between BFLA and MFLA, both of which involve normal variation in the milestones of language development. According to Lanza (2004), the study of the child's simultaneous acquisition of two languages from birth must be set within the framework of language socialization, which is covered in the subsequent section.

2.3 Language Socialization

*Language socialization*⁴ is the study of the interaction between linguistic and cultural development and how these processes vary across cultures (Howard, 2014). Ochs and Schieffelin, who have produced in depth work in the field (see Ochs, 1988; Ochs & Schieffelin, 1984, 2011; Schieffelin, 1990; Schieffelin & Ochs, 1986*a, b*), define language socialization as involving both “socialization through the use of language” and “socialization to use language” (Schieffelin & Ochs, 1986*a*, p. 163) and have studied how bilingual children come to master the languages of their speech community. Howard (2014) describes this further by stating that children are “simultaneously socialized ‘into and through’ language and discourse; that is, how they are socialized ‘into’ specific uses of language or other

⁴ The field of language socialization is quite large and has a large focus on *second language socialization*, specifically for children and adults learning a second language successively or consecutively. For the purposes of this study, this section is focused on language socialization as it pertains to BFLA children, not second language learners. For work on (adult) second language socialization, refer to Duff, 2010; Duff & Talmy, 2011; Séror, 2011; among others.

semiotic devices, and ‘through’ language/discourse to become familiar with their community’s ways of thinking, feeling, and being in the world.” As Schieffelin states, “socialization is a product of interaction” (1990, p. 7), and as such, children acquire sociolinguistic competence by gaining both linguistic and social knowledge as they develop and interact with those around them.

A child’s interaction with those around them leads to their development of *communicative competence*, or the knowledge of appropriate language use. Hymes’ first described this ability in 1966 and later stated “...a normal child acquires knowledge of sentences not only as grammatical, but also as appropriate. He or she acquires competence as to when to speak, when not, and as to what to talk about with whom, when, where, in what manner” (1972, p. 277). Elaborating on Hymes’ original term, Romaine further describes communicative competence as “the fundamental assumption of the sociolinguistic approach to language” (1984, p. 2), as it involves knowledge of language not only as grammatical but also as appropriate within a sociocultural framework, including both formal and functional aspects. The idea of ‘appropriate’ language use varies across cultures, speech communities, social groups, families, relationships, situations, and contexts. Using the example of code-switching, a bilingual child will learn when and with whom it is acceptable to use both languages, and when the social situation calls for the strict use of only one of the languages. Additionally, language socialization may play a role in the family in a minority context where there is a need to socialize the child in the minority language in order to avoid language attrition.

2.3.1 Children as Active Agents in Language Socialization

Language socialization is an interactional process rather than unidirectional one (Pontecorvo, Fasulo, & Sterponi, 2001), allowing all participants to be active agents in the formation of language competence. In other words, children are not only passive receivers of

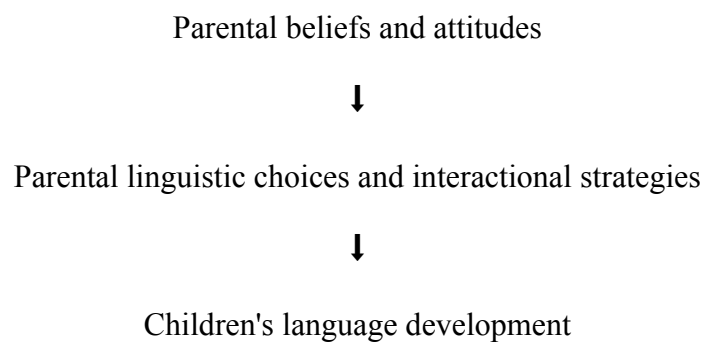
sociocultural knowledge, but are also active in the outcome of their interactions with others. Rogoff (1990, 2003) noted that “learning is collaborative and development is a dynamic outcome of children’s active involvement in activities with others who guide their participation” (as stated in Ochs & Schieffelin, 2011, p. 6). As Fogle (2012) notes, although research on language socialization has been mainly focused on the role of parents in shaping their children’s language behaviours and practices, more recent studies have emphasized the active role children have in their language development and the interactional nature of language socialization (see Corsaro, 2004; Kulick & Schieffelin, 2004; Luykx, 2003). Regardless of their ultimate language competencies, the interactional nature of language socialization allows a child to construct their own social identity through their language use and helps them to shape their bilingual language development (Guardado, 2002).

2.3.2 Language Socialization at the Family Level

Although the theory of language socialization encompasses a wide variety of speech communities (cultures, communities, families, etc.), for the purpose of this thesis, I am interested in the smaller speech community, the nuclear family (parents and/or caregivers and their children), and language socialization as it pertains to bilingual development of children under the age of 4 years, before they enter the formal education system. The nuclear family is of particular importance as parental involvement and the home environment are the main factors when it comes to the development and maintenance of minority languages in bilingual children (Guardado, 2002) as children tend to spend more time with their parents at this young age.

In the family setting, parents not only provide linguistic input, but also metalinguistic input, showing their children what appropriate language use is within the home. As mentioned before, what parents deem as ‘appropriate’ language use will vary by family as they are based on individual parents’ beliefs and attitudes towards bilingualism. For example,

if a minority-language-speaking family feels that it is important for their children to become ‘proficient’ in the minority language in order to preserve the family’s culture before becoming (more) exposed to the majority language once they start attending school, they may set strict rules for only the minority language to be spoken in the home. On the other hand, if bilingual parents feel it is acceptable for the children to code-mix or code-switch in both the minority and majority languages, they may themselves mix or switch codes in their interactions with them. King et al. (2008, p. 912) presented the following relationship between parental beliefs/attitudes and children's language development:



Fogle and King (2013) documented how child agency and language use during their socialization influenced their family's' language policy (discussed below), focusing on children’s metalinguistic comments and their use of resistance strategies, as well as parental responses to children’s growing linguistic competence and language outside of the family.

2.3.3 Negotiation of Context

The negotiation of context is concerned with language use on the continuum of monolingual to bilingual context. In a monolingual context, only the use of one language is deemed as appropriate, generally used based on the language understood by the interlocutor or interlocutors as any other language use may lead to communication breakdowns. In contrast, in a bilingual context, the use of either language, or a mixture of both, is admissible as those involved have, at least, an understanding of the two languages. As Lanza says, “a

discussion of context is important because by examining language at the discourse level in social interaction we may gain more insights into the child's ongoing language choices with bilingual as well as monolingual interlocutors" (2004, p. 254). This idea was mentioned in previous work by Ochs, who stated that "when children acquire knowledge of relations between linguistic features and contexts of use, they acquire knowledge of expectations associated with these relations" (1988, p. 13).

In the situation of BFLA children, the negotiation of context can be done by the parents by how they respond to a child's language use. If, within a specific context, a child uses a language which a parent sees as inappropriate or not the language they want the child to use, they can encourage the use of the correct language through direct requests, or by showing the child that there is a clear breakdown in communication. In her book, Lanza (2004) gives the example of a mother who is fully bilingual in English and Norwegian and understands her daughter's utterances in both languages. The mother may, however, "purposefully feign the role of a monolingual" (p. 264) by questioning her daughter's utterance spoken in what she sees as the inappropriate language (Norwegian in this particular case). According to Lanza, if the daughter switches to the 'appropriate' language in response to this discourse strategy (discussed in section 2.6 of this chapter), she would be 'repairing' the conversation and showing her sensitivity and understanding to the ongoing interactional demands of her English-speaking mother. Lanza explains that "the mother through her discourse strategy thus negotiated a monolingual context" (2004, p. 255, showing that within that context, her daughter is to speak English only, especially if she wants to be understood by her mother. Similar strategies, referred to as 'educational strategies' and 'high constraint insisting strategies' have been seen in Taeschner (1983) and Döpke (1992a), respectively, and have been deemed more successful for language maintenance and bilingualism than other

strategies noted (Lanza, 2004). As mentioned, an in-depth look at the strategies put forth by Lanza will be presented later in this chapter.

2.3.4 Summary

Language socialization is the study of the interaction between linguistic and cultural development and the acquisition of linguistic and social knowledge. This includes child's development of *communicative competence*, or language appropriateness, something that varies across cultures, speech communities, situations, and contexts. Language socialization is an interactional process as children can play an active role in their communication with others and the construction of their social identity. Within the family, a child's language socialization and bilingual development comes largely from the parent's attitudes towards bilingualism and appropriate language use. The framework of language socialization is important to the study of child bilingual first language development as it can strongly influence a child's language use and the development and maintenance of minority languages. As such, in the next section, an overview of the study of minority language maintenance is given as it pertains to this study.

2.4 Minority Language Maintenance

Minority language maintenance deals with the transmission and maintenance of languages in environments in which said languages are not the language of communication of the general population. For example, in most areas of Canada, although French may be an official language, it is considered a minority language in many areas compared to English, the language spoken by the majority of the population. The term 'minority' may be deceiving in some cases as the amount of speakers of a minority language may be greater, however the social or economic power of the majority language may be more attractive or useful. For example, in the province of Galicia in north-western Spain, there are approximately 2.4 million speakers of Galician (a Romance language closely related to Spanish and Portuguese

that has official statutory provincial language status) (Xunta de Galicia, 2016). Although 58% of the population of Galicia speak Galician as a first language, Spanish is widely seen as the language of communication and business due to its majority use throughout the country (Observatorio Da Lingua Galega, 2007).

Some cases in which minority language maintenance comes into play are when children are born into a community in which the language of the community is different than that spoken at home by their parents, or when a child is born and raised partially in one area and then moves to another in which their first language shifts from the majority to the minority language. It has been seen that in the latter, the child's linguistic input changes significantly, causing their language use to shift to the majority language of the new location (Burling, 1959; Fantini, 1985; Hansen, 1999).

When it comes to minority language acquisition, one or both of the parents are generally the first exposure a child has to the language, and thus parental involvement is an important factor in transmitting and maintaining minority languages (Guardado, 2002). Minority language maintenance is not only a way for children to communicate with their parents and extended family, but for parents to pass down and preserve their culture and cultural identity through language. As such, many parents wish for their children to maintain the minority language (Cho, 2000; Guardado, 2002; Pacini-Ketchabaw, Bernhard, & Freire, 2001; Zhang & Slaughter-Defoe, 2009). As previously mentioned, Guardado (2002) notes that the home environment is the main factor in minority language maintenance, echoing Fishman's (1991, 2001) argument that the foundation of minority language maintenance is the intergenerational transmission of the language through everyday informal, spoken interaction (although this argument is still debated, as noted in King, 2008).

Ways in which parents can transmit and help foster an environment conducive to minority language maintenance beyond providing input through everyday communication

include reading to the children, using picture books to develop vocabulary, as well as introducing television programs in the minority language (Cho & Krashen, 2000; Nomura & Caidi, 2013).

In addition to the role the daily home setting plays in the maintenance of minority languages, visits to the parent's area or country of origin (where the minority language in question is spoken as a majority language) has been shown to play a vital role in minority language acquisition, use, and maintenance (Szeczi & Szilagyi, 2012; Slavkov, 2014). This role includes more of a linguistic and social immersion as the children, in theory, receive a substantial increase in exposure of the language with speakers of that language, but are also exposed to the language in a variety of contexts that may be limited or non-existent at home.

Furthermore, in some areas, parents have the option to enrol their children in programs or schools that offer additive minority language support. Types of programs can range from dual language school programs to 'Saturday schools' in which children attend minority language classes on the weekend. Baker (2011) notes that dual language programs, such as those seen in the Cuban communities in Florida, not only promote bilingualism in both the minority and majority languages, but also biliteracy and biculturalism as the minority language is used between 50% and 90% of instruction and languages are learned through context. 'Saturday schools' or 'weekend schools' include programs offered by various government or religious institutions that allow parents to give their children additive exposure to the minority language through contact with other native speakers, if only for a few hours a week (Baker, 2011). Although these additional schools or programs may aid in the minority language maintenance, Eisenclas, Schalley, and Guillemin (2015) found that many children find them to be more of an academic burden, which may discourage the language use if children begin to negatively associate the language to added stress.

2.4.1 Summary

Minority language maintenance is a way for parents to help their children to maintain the use of the minority language they are acquiring. This can be done by providing input in the minority language through everyday communication and activities in the home, added exposure through trips to their home county, or by enrolling their children in language programs or schools. How families use and maintain minority languages in the home can be studied via the application of family language policies, as discussed in the next section.

2.5 Family Language Policy

The field of study *family language policy* is relatively new and focuses on the guidelines or ‘rules’ that families put into place in regards to language use within the home or family setting. It has been defined as “language practices... the beliefs about language and language use; and any specific efforts to modify or influence that practice by any kind of language intervention, planning, or management.” (Spolsky, 2004, p. 5). Family language policies are part of larger speech community practices that includes language ideology, practice, and management (Schwartz, 2010). When language development is looked at from the family level, research includes the role of the family in minority language maintenance, family language ideology, practice and management, as well as the challenges associated with these policies (Schwartz, 2010). The study of family language policy contributes to both the study of general language policy and child language acquisition as it plays a central role in the acquisition and use of languages by children, as well as minority language maintenance as it is a way to gain insight into parental language use in minority language contexts (Curdt-Christiansen, 2013).

Parents who wish for their children to speak a specific (generally minority) language in the home generally create these guidelines or practices with intention of the children becoming bilingual or multilingual, learning both the majority language spoken outside of the

home, as well as the minority language spoken at home (or in some cases both the minority and majority languages). These guidelines may be implicit, or can be explicit (Shohamy, 2006) and part of overt planning on the part of the parents (Schiffman, 1996) to adhere to the specific use of the minority language and/or avoidance of the majority language (King, 2008). Given that even after taking into account the various social influences (community, schooling, etc.) involved in developing language socialization in children, the nuclear family is nevertheless “the most common and inescapable basis of mother tongue transmission, bonding, use and stabilization” (Fishman, 1991, p. 94), family language policies are of great importance in the development of bilingual children. According to Lanza (2004), studies of family language policy can be sorted according to the parental strategies employed in the promotion of bilingualism, as well as by the type, situation, and context of the families studied (Lanza, 1992; Romaine, 1995).

2.5.1 Types of Family Language Policies

Romaine (1995, p. 183) discusses the types of family language policies (strategies) that aim to foster bilingual development in 6 main types. Below are adapted descriptions and scenarios of each from Romaine (1995, p. 183) with similarities and differences discussed after.

1. *One Parent, One Language*

- ❖ **Parents:** Different native language with some level of competence in the other’s language
- ❖ **Community:** The language of one parent is the dominant language of the community
- ❖ **Strategy:** Parents speak their native language to the child from birth
- ❖ **Example:**

Parent 1: English (L1) / Spanish (L2), speaks only English to the child

Parent 2: Spanish (L1) / English (L2), speaks only Spanish to the child

Majority Language of the Community: English***2. Minority Home Language / One Language, One Environment***

- ❖ **Parents:** Different native languages
- ❖ **Community:** Language of one of the parents is the language of the community
- ❖ **Strategy:** Both parents speak the minority language to the child, who is fully exposed to the majority language outside of the home
- ❖ **Example:**

Parent 1: English (L1) / Spanish (L2), speaks only Spanish to the child

Parent 2: Spanish (L1), speaks only Spanish to the child

Majority Language of the Community: English

3. Minority Home Language Without Community Support

- ❖ **Parents:** Same native language
- ❖ **Community:** Majority language is not that of the parents
- ❖ **Strategy:** Parents speak their own language to the child from birth
- ❖ **Example:**

Parent 1: Spanish (L1), speaks only Spanish to the child

Parent 2: Spanish (L1), speaks only Spanish to the child

Majority Language of the Community: English

4. Double Minority Home Language Without Community Support

- ❖ **Parents:** Different native languages
- ❖ **Community:** Majority language is different than either of the parents' languages
- ❖ **Strategy:** Parents speak their own language to the child from birth

❖ **Example:**

Parent 1: Spanish (L1), speaks only Spanish to the child

Parent 2: Portuguese (L1), speaks only Portuguese to the child

Majority Language of the Community: English

5. Non-native Parents

❖ **Parents:** Share the same native language

❖ **Community:** Majority language is the same as that of the parents

❖ **Strategy:** One of the parents always addresses the child in a language which is not their native language

❖ **Example:**

Parent 1: English (L1), speaks only English to the child

Parent 2: English (L1) / Spanish (L2), speaks only Spanish to the child

Majority Language of the Community: English

6. Mixed Languages

❖ **Parents:** Both parents are bilingual in the languages of the community

❖ **Community:** The community, or part of it, is also bilingual in the same languages

❖ **Strategy:** Parents code-switch and/or code-mix in both languages

❖ **Example:**

Parent 1: English (L1)/Spanish (L2), speaks English and Spanish to the child

Parent 1: English (L1)/Spanish (L2), speaks English and Spanish to the child

Majority Language of the Community: English and Spanish

Although different, some scenarios have similarities or overlaps. For types 1, *One Parent, One Language*, and 2, *Minority Home Language / One Language, One Environment*, the parents have different native languages and the language of one is the majority language of the community. In type 1, however, the child is exposed to both languages at home, while in type 2 exposure to the majority language is generally later and outside of the home (Romaine, 1995). In types 3, *Minority Home Language Without Community Support*, and 5, *Non-native Parents*, the parents share the same language; however the language of the parents is not the community language in type 3, and in type 5, one of the parents addresses the child in a language that is not native to them. The linguistic outcomes for types 4, *Double Minority Home Language Without Community Support*, and 6, *Mixed Languages*, may be more complex. In type 4, the parents have different native languages, neither of which is the same as the community language. In such situations, the expected or desired outcome is a trilingual child (Romaine, 1995). The levels of trilingual competence would depend greatly on the language the parents use to communicate with each other, as it may be one or both of their native languages, or the language of the community. Furthermore, in type 6, the child is exposed to, in theory, a great deal of code-switching and mixing, which would likely lead the child to also produce a greater deal of code-switching and code-mixing than in other scenarios.

Much of the research on bilingual acquisition in childhood has been focused on the *one parent, one language* approach and include Arnberg, 1987; De Houwer, 1990; Döpke, 1992; Juan-Garau and Perez-Vidal, 2001; Harding and Riley, 1986; Lanza, 1997; Leopold, 1939-1949; Ronjat, 1913; Søndergaard, 1981; Slavkov, 2014; Takeuchi, 2006; among many others. As Lanza points out (1997, 2004), the *one parent, one language* strategy is perhaps the most difficult to adhere to, especially when taking into consideration the fact that the

parents will communicate with each other in one or both of the languages, displaying to the child that at least one of them has competencies in both languages.

Research that has focused on *non-dominant* and *double non-dominant home languages without community support* include Haugen (1953) and Oksaar (1977), and Hoffman (1985) and Quay (2008), respectively. Fantini (1985) focused on the *one-language, one environment* approach, with both parents of the case study speaking the minority language in the home, even though it was not the native language of the father. Along the same line, studies by Saunders (1982) and Döpke (1992) looked at situations in which both parents and the community share the same language. In these studies, however, one parent always addresses the child in a second language that is not native to them (different from the situation in Fantini's study as neither of the parent's were native in the minority language). Romaine (1995) argues that both these studies underline the fact that quality of input is more important than amount, especially as Saunders was able to bring his own children up bilingually in English and German in Australia even though neither he nor his wife were German native speakers, as was the case for the family studied by Döpke. Furthermore, De Houwer (2009), Barron-Hauwaert (2004), and Yamamoto (2001) have argued that maximizing minority language use by both parents may be the better family language policy for children to develop bilingually.

Studies in which both parents are bilingual, as well as part of the community, have looked at the *mixing of languages*, either as code-switching or code-mixing, and include Bergman (1976), Ellul (1978), Lanza (1997), Lyon (1996), and Tabouret-Keller (1962), among many others. King et al. (2008) also mention studies that have looked at families that supplement one of the above strategies by using an 'additive' approach of sending their children to international or language schools (Swain & Lapkin, 1982, 1991), or having a

caretaker who can speak the minority language, as seen in Taeschner (1983), as well as King and Logan-Terry (2008).

Although the family language policies mentioned have been shown to be more or less effective depending on the type, one potential flaw in these policies is that they pertain to the parent's language use when communicating with the children and do not look at the language of communication between the parents in either dyadic (between themselves but in hearing distance of the child) or triadic (together with the child) interactions. This drawback and the implications it has on the study of childhood bilingualism is discussed in De Houwer (2009).

Family language policy research has seen an increased emphasis on the family as a dynamic system, including the importance of child agency (Corsaro, 2004; Gafaranga, 2010; Kulick & Schieffelin, 2004; Luykx, 2003; Okita, 2001), however there have been less studies done looking at children as active agents in their bilingual development in comparison to studies looking at the policies themselves (although see Guardado, 2008; Hiroko, 1998; Juan-Garau & Pérez-Vidal, 2001; among others). Therefore, as previously mentioned, this is one of the aims of this study.

2.5.2 Summary

The field of family language policy studies the ways in which parents set the explicit or implicit guidelines for language use in the family setting. In order for families to implement and follow these policies, the need for reinforcement of these "rules" is required. PDS, the main focus of this study, can be seen as the ways in which parents reinforce these policies and maintain the use of their chosen language with their children. These strategies are discussed in detail in the following section.

2.6 Parental Discourse Strategies

PDS are the strategies that a parent or caregiver uses when communicating with a bilingual or multilingual child. PDS were first mentioned in 1902 by Maurice Grammont, and

have since been extensively researched (Barron-Hauwaert, 2004; Döpke, 1992; Harding, & Riley, 1986; Juan-Gauru & Pérez-Vidal, 2001; Lanza, 1992, 1997, 2004; Min, 2011; Mishina-Mori, 2011; Romaine, 1995, 2004; Taeschner, 1983, among others). These strategies are situated within the *socialization framework* (Lanza, 1997; Ochs & Schieffelin, 2011; De Houwer, 2009, among others). As mentioned in section 2.3, the assumption in this framework is that socialization has a strong impact on the child's language choice, use, acquisition, and retention. This is particularly important when one of the two languages the child learns is a minority language, as unbalanced use of the two languages could gradually cause the minority language to become passive, undergo attrition, or be lost altogether (Lanza, 1997). The idea is then that through their socialization with their children, parents can increase the exposure to and encourage the use of the minority language with PDS in order to ensure acquisition of that language to some level.

These discourse strategies come into play when parents respond to a child's use of the languages they are learning, specifically when the child uses a language that is not the preferred language of the parent (or the language they are encouraging the child to use), or when the child mixes two languages when communicating with the parent. Although language mixing may not be seen as an issue, parents may wish to address a child's mixing if there is indication of minority language attrition or loss. Lanza (1992, 1997) proposed that how a parent responds to the child's language mixing has a strong impact on a child's language choice, a proposal that has since become known as the *parental discourse hypothesis* (Nicoladis & Genesee, 1998). This hypothesis was set out by Lanza (1992) after claiming that one of the bilingual Norwegian/English subjects of her study, Siri, seldom mixed languages with her mother, who typically used strategies demanding that Siri only speak in English with her, whereas she code-mixed substantially when interacting with her father who generally accepted this mixing.

2.6.1 Types of Parental Discourse Strategies

Based on previously proposed strategies by Döpke (1986, 1988), Ochs (1988), and Ochs and Schieffelin (1984), Lanza outlined five main PDS (1992, p. 649): *minimal grasp*, *expressed guess*, *adult repetition*, *move on*, and *adult code-switch*. These strategies are ordered from the most ‘monolingual’ to the most ‘bilingual’ strategy, referring to the perceived language abilities of the parent (i.e. if the parent has monolingual or only bilingual capabilities in the eyes of the child), or the expectations that the parent sets for the type of context (monolingual or bilingual) they wish to communicate in.

Listed below are definitions and explanations of these five strategies, as well as hypothetical examples⁵ of a Spanish speaking mother speaking to her child in an English majority language environment.

1. *Minimal grasp* is a strategy in which parents display limited understanding or pretend that they do not understand (mentioned in section 2.3.2) when the child produces an utterance in the language dispreferred by the parent. As per Lanza’s classification, this strategy is considered to be a monolingual one as it creates a context in which the parent’s preferred language is the one to be used in order to be understood. Studies have shown that this is one of the most effective strategies in terms of influencing the child’s language choice (Hiroko, 1998; Juan-Garau & Perez-Vidal, 2001).

Example:

Child: *I want milk.*

Mother: *¿Cómo? ¿Qué has dicho?* [Pardon? What did you say?]

2. *Expressed guess* is when the parent ‘guesses’ what the child said in the dispreferred language and attempts to reformulate the utterance in the form of a yes/no question in their

⁵ The examples used here are simple phrases created by myself to show the idea of each strategy using similar utterances. More elaborate examples from the data used in this thesis will be given in chapter 6.

preferred language. When using this strategy, the parent shows that they understand (in whole or in part) what the child said, but either shows or feigns their inability to respond in the same language, requiring the child to then respond in the desired language or confirm the parent's guess. This strategy is perhaps less of an insistence strategy because the child can just confirm the parent's 'guess' and not necessary produce the same utterance in the desired language, allowing the conversation to continue.

Example:

Child: *I want milk.*

Mother: *¿Quieres leche?* [You want milk?]

3. Repetition is when a parent repeats what the child said in their desired language, showing their understanding of what was said in the other language but also implicitly indicating their language preference. This can be done in either a direct translation of what the child said, or as confirmation in the desired language of the child's original utterance, as seen below:

Example:

Child: *I want milk.*

Mother: *Quiero leche.* [I want milk.] or *Quieres leche* [You want milk.]

4. Move On is when the parent continues on with the conversation and responds to the child's utterance without correcting or restating the utterance in their native language. This strategy shows the parent's comprehension of the other language and gives the idea that it is ok to use the other language with that parent. This strategy results in a bilingual conversation, with the parent only using their language, and the child only using the other.

Example:

Child: *I want milk.*

Mother: *Vale. Toma.* [Ok. Here you go.]

5. Adult Code-Switch is when parents switch to the language the child is using, making it a mixed utterance involving the two languages, or an utterance completely in the other language. In doing so, the child learns that code-switching is appropriate and may continue to use it with the parent.

Example:

Child: *I want milk.*

Mother: *Ok. Here you go.*

As mentioned, these strategies are on a monolingual to bilingual continuum, as shown in figure 2.1. On the monolingual end of the continuum, the parent speaks only one, usually their native, language with the child and aims to create a monolingual context (as mentioned in section 2.3.2). On the bilingual end of the continuum, the parent uses both languages the child is learning, allowing for a bilingual context to be established. Although considered the ‘bilingual’ end of the continuum for the parent, these strategies can ultimately lead to monolingualism in the child if the L2 is the majority language of their community as it will therefore be the language they are most exposed to both in and outside of the home.

Figure 2.1. Parental Discourse Strategies on a Monolingual to Bilingual Continuum

Monolingual Context		<----->			Bilingual Context
Minimal Grasp	Expressed Guess	Adult Repetition	Move On	Adult Code-Switch	

For this study, two additional strategies not listed in Lanza’s original list (but have been suggested to add in as seen in De Houwer, 2009) have been added, as strategies found in the data did not fall into the any of the five strategies if categorized following their strict definitions. The two additional strategies are as follows:

6. Translation Request (De Houwer, 2009; Dopke, 1992; Slavkov, 2014). These explicit requests, or prompts, are done when an adult responds to a child's use of a language by asking, "And in Bulgarian?" (as seen in Slavkov, 2014), "How do you say that in X?" or, "In Spanish, please.". These requests can also be seen as an important discourse strategy that show the parent's explicit desire for the child's use of the target language of the parent.

Example:

Child: *I want milk.*

Mother: *¿Cómo se pregunta en Español?* [How do you ask in Spanish?]

7. Modelling. This strategy includes either modelling of a new lexical item or interactions where the child says an utterance in the minority language, yet says it incorrectly, giving the parent the opportunity to correct the error or provide a new lexical item. This is different than repetition as it is a growth or correction of the child's minority language use, rather than an attempt to switch the language of choice. This can be seen in interactions between parents and their monolingual children as well as part of their language development.

Example 1:

Child: *Quiero leche con esto.* [I want milk with this.]

Mother: *¿Y cómo se llama eso?* [And what is that called?]

Child: *No sé.* [I don't know.]

Mother: *Canela. Quieres leche con canela.* [Cinnamon. You want milk with cinnamon.]

Example 2:

Child: *Quiero leche y canela.* [I want milk and cinnamon.]

Mother: *Quieres 'leche **con** canela'* [You want milk **with** cinnamon]

On the monolingual to bilingual continuum mentioned earlier, request for translation, according to Lanza in De Houwer (2009), could be subsumed under minimal grasp, as seen in figure 2.2, as it's function is to keep a conversation in one language only. De Houwer (2009) says that requests for translations are typical in conversations with BFLA children with more advanced competences in both languages, but less so in conversations with children who have just started to speak in two-word utterances and who may not know sufficient words yet as the strategy is only useful if the child knows the equivalent translation (Lanvers, 2001). This is where the seventh strategy, modelling, becomes useful. Modelling can include teaching a new lexical item or showing the correct way of saying an utterance produced incorrectly by the child in the minority language (something that can be seen in monolingual parent-child interactions as well). This would then place modelling also on the monolingual end of the continuum as it further encourages the (correct) use of the minority language in response to the child's use of the minority language. In other words, it is encouraging the child to speak in the minority language, but not necessarily in response to the child's use of the majority language. Neither of these two additional strategies are placed on the original continuum as although both encourage the use of the minority language, the contexts in which they are used may vary.

Figure 2.2. Additional Parental Discourse Strategies on a Monolingual to Bilingual Continuum

Monolingual Context		<----->			Bilingual Context	
Minimal Grasp	Expressed Guess	Adult Repetition	Move On	Adult Code-Switch		
Translation Request						
Modelling						

2.6.2 Effects of Parental Discourse Strategies

Studies by Lanza (1992, 1997) have argued that the use of these strategies by parents had positive influences on the child's use of the minority language or languages. These strategies have been looked at in other studies (Döpke, 1992; Juan-Garau & Pérez-Vidal, 2001; Mishina, 1999) and show further evidence that they have a positive impact on the child's language choice. There is a positive effect when using the monolingual strategies as they encourage the use of the minority language and support bilingual language acquisition by not allowing the majority language to take over.

The use of the bilingual strategies, however, may lead to monolingualism in the majority language as they allow the child to use their language of choice, which is often the majority language (Lanza, 1997), suggesting that they may not be sufficient in the influence of a child's ultimate language development (Deuchar & Muntz, 2003; Nicoladis & Genesee, 1998). De Houwer notes that if parents use mainly the more bilingual discourse strategies and allow children's use of the majority language, children ultimately have no need for speaking the minority language (2009). This is especially common when parents talk in the minority language and children respond in the majority language, a term Saville-Troike (1987) calls *dilingual conversations*. The typical outcome of the prolonged use of these dilingual conversations is that children grow to understand the minority language, but only speak the majority language, becoming *passive bilinguals*.

This pattern of children responding to their parents in the majority language is, again, part of the role they play in their own language socialization. One of the aims of this study is to see if children in their first few years of life have already begun to play this active role in their language socialization based on their choice of language in response to their parent's minority language use or insistence on its use.

2.6.3 Summary

PDS are the strategies parents use in conversations when attempting to influence a child's use of the languages they are learning. They are seen as being on a monolingual to bilingual continuum as they reflect the parents attempt to create a monolingual context, or their acceptance or approval of a bilingual context in which to communicate with their children. Studies have shown that more monolingual strategies lead to the development of actively bilingual children as they contribute to the development and frequency of use of the minority language, while the bilingual strategies often lead to passive bilinguals in the minority language or monolinguals in the majority language as they allow for more code-mixing or complete preference for the majority language. This study is based on the use and successfulness of these strategies as they pertain to the minority language maintenance of the children under investigation.

2.7 Discourse Analysis

Moving away from the literature that provides background for this study, this section discusses *discourse analysis*, the field of study from which the methodology of this paper is partially based.

Discourse analysis (henceforth DA) is an umbrella term that deals with the analysis of spoken, written, or signed language. One of the most quoted definitions of DA comes from Stubbs (1983, p. 1), who says that the study of DA involves looking at “language above the sentence or above the clause”. This definition can be further expanded on to include the fact that, depending on the research goals, it is generally preferred to analyse naturally occurring or spontaneous discourse. As DA deals with language above the sentence level, it looks for patterns in discourse larger than, or involve more than, a single utterance. As such, it is important to understand the context, often done by understanding larger sections of a text or recording, as two utterances understood within a single discourse may have a different

meaning than if they are understood separately. Simply put, DA looks at the bigger picture of a discourse to understand how we construct meaning throughout.

When dealing specifically with spoken language, a subset of DA, *conversation analysis*, is used. Conversation analysis (henceforth CA) involves listening to conversations, transcribing them, and “reflecting on its [their] meaning and significance” (Cameron, 2001, p. 8). Visual recordings, when available, can also be included, allowing for further analysis involving body language and facial expressions, as well as providing further context to the discourse.

2.7.1 Conversation Analysis

Whereas DA aims “to develop a set of basic categories or units of discourse, to find specific and delimited sets of unit acts⁶, and to formulate rules concerning well formed sequences of categories (coherent discourse) from ill-formed (incoherent discourses)” (Psathas, 1995, p. 67), the topic of research in CA is “the social organisation of activities conducted through talk” with aims to “discover sequential patterns of interaction, and to explicate the web of normative expectations and assumptions which inform and underpin the production of those sequences” (Wooffitt, 2005, p. 79). In other words, CA examines language as a social action. This examination of language as a social action is principally accredited to sociologists Sacks, Schegloff, and Jefferson (see Jefferson, 1972; Sacks, Schegloff, & Jefferson, 1974; Schegloff, 1992; Schegloff, Jefferson, & Sacks 1977; Schegloff & Sacks, 1973) and was inspired by the field of ethnomethodology and the conception of the study of interaction order (see Garfinkel, 1967; Goffman, 1983). Wooffitt (2005) notes that Sacks’ main claim in the development of CA is that everyday discourse exhibits an “extraordinary level of orderliness” which reflects a “socially organised order of interpersonal action” (p. 19).

⁶ The smallest units of discourse.

Cameron (2001) describes CA in its purest form as a markedly ‘data centred’ form of DA in which the analyst does not look for any additional information coming from outside the talk itself. Gaining knowledge of participants’ identities or beliefs is not necessary in, and can sometimes distract from the process of, CA as their talk itself is treated as containing all relevant information for analysis. This pure form of CA has disadvantages, from lacking background information that may give insight into what is being said and why, to the potential to miss key elements of the conversation based on lack of context, but it also has acknowledged advantages. These advantages, according to Cameron (2001), include the inability to make reference to what is not in the data and the restraints it imposes to pay very close attention to the fine details of what is there, allowing for researchers to find intricate patterns in the way spoken interactions are organized. There are many elements that are central to the study of CA on which a vast amount of literature have been written (see Sacks, Schegloff, & Jefferson, 1974; Wooffitt, 2005; Sidnell & Stivers, 2012; Kaplan, 2014; among others); however, only the notions of turn-taking and repair (defined and discussed below) will be covered in this brief overview as they are directly related to this study.

2.7.2 Turn-Taking and Repair

CA, or talk-in-interaction, although applicable to many different kinds of data (media, politics, etc.), was developed to analyse talk, more specifically the kind of talk that is thoroughly interactive (Cameron, 2001). The fact that talking generally involves more than one person (with the exception of narratives, speeches, radio programs, etc.), and that people normally take turns when talking, is central to the CA approach, which is, above all, concerned with describing sequential patterns in conversation. Turn-taking is, in some cases, necessary in order to address the context of conversation, and is done using the conversational *turn at talk* as the unit of analysis. The conversational turn at talk is comprised of “an utterance or group of consecutive utterances bounded by a pause, or by an utterance of

another participant in the conversation” (Lanza, 1992, p. 637). This turn-taking is based on the idea that conversations are conducted when one person speaks and another listens, then take turns continuing this pattern (Tannen, 2012). Tannen (2012) notes that speakers have systems for determining when one person's turn is over and the next person's turn begins, and includes linguistic tools such as intonation, pausing, and phrasing. This can be seen when dealing with questions and answers as described by Lanza: “the question/answer pair form an *adjacency pair* (Schegloff & Sacks, 1973), a sequentially constrained pair of turns at talk. With such pairs, the occurrence of a first pair-part creates a slot for the occurrence of the second pair-part; a non-occurrence of the second pair-part is recognized as an absence/violation” (2004, p. 265)

In addition to the central idea of turn-taking in which all interlocutors are obliged to participate in an interactional activity (Sacks, Schegloff, & Jefferson, 1974), the idea of conversational repair is also involved. In CA, repair is the way in which issues, breakdowns, or misunderstandings are dealt with in interactions (Schegloff, Jefferson, & Sacks, 1977) and was first defined by Schegloff, Jefferson, and Sacks “as the set of practices whereby a co-interactant interrupts the ongoing course of action to attend to possible trouble in speaking, hearing or understanding the talk” (as cited in Kitzinger, 2012, p. 230). Such troubles include “misarticulations, malapropisms, use of a ‘wrong’ word, unavailability of a word when needed, failure to hear or to be heard, trouble on the part of the recipient in understanding, incorrect understandings by recipients” (Schegloff, 1987a, p. 210).

There are two main types of repairs: *self-initiated* and *other-initiated* repairs. A key distinction between these two types is which speaker initiates the repair and which speaker completes it (Kitzinger, 2012). Self-initiated repairs, or *self-repairs*, are repairs initiated by the speaker of the issue who generally completes the repair by producing a solution. The speaker stops what they are saying to deal with an issue in what they said. Such repairs could

include replacing a word (that was mispronounced, from a different language, incorrectly used, etc.) with the ‘correct’ word or inserting a word that was missing, perhaps from speaking too quickly. Other-initiated repairs happen when someone other than the speaker of the issue initiates the repair. In this case, the listener initiates a repair by signalling that there was an error in what was said, or that there is an issue with hearing or understanding on the part of the listener that requires the speaker to repeat or change what they said, or to add additional information to clarify. The listener of the issue usually does not give the repair solution, but rather gives invitation or requests for a repair by the speaker. Kitzinger (2012) states that it is rare in ordinary conversation for the listener to ‘correct’ the talk of another, however this can be seen in conversations between parents and children, such as those used in this current study. Although both self-initiated and other-initiated repairs inhibit the conversation from progressing, self-initiated repairs in same turn-at-talk interrupt the interlocutor's own turn, whereas other-initiated repairs interrupts the progressivity of the sequence of turns (Kitzinger, 2012).

The area of repairs in CA is of interest for this study as some of the PDS work as repairs. For example, the PDS repetition can be seen to function as a type of repair when dealing with bilingual children as the parent uses a repair (a PDS) to show or highlight the use of a ‘wrong’ word, in this case, in the ‘wrong’ language. The conversation would then be ‘repaired’ when the child responds in the ‘correct’ word in the ‘correct’ language. Additionally, Ochs (1988) noted that how a child responds to a repair may show that they are aware of the expectation of the parent (or other interlocutor) to use a particular language in the context they are in.

2.7.3 Conversation Analysis Data

The primary data for conversational analysis data are audio recordings of spontaneous speech. This audio recording may be accompanied by additional video recording where

necessary or appropriate, which, depending on the intended use of the data, can add to the analysis by allowing for the analysis of body language as well. Video recordings can also add context to the conversations by allowing for reference points within the spoken discourse to be seen as well. As mentioned earlier, such additional information for CA at its purest form would be considered unnecessary or even distracting as it would give the analyst the opportunity to see additional information coming from outside the talk itself in what is, at its core, a markedly 'data centred' form of DA. If the intended purpose of the data is not to be analysed using the purest form of CA, the addition of audio or video recordings allow not only for the analyst to gain context and view body language, but the speaker's use of prosody (intonation, stress, pausing) can also be included in the analysis.

Transcripts, such as those used for this current study (see chapter 3 for more details), assist in the analysis of the recordings. The process and forms of transcription can vary depending on the intended use of the data, but in general, the "transcription system provides a detailed characterisation of 'messiness' of everyday interaction, focusing on speech production and turn-taking organisation" (Woffitt, 2005, p. 13). The standard transcription system used for CA is the Jeffersonian transcription, developed by Jefferson while transcribing recordings by Sacks and is one of the most comprehensive systems for transcribing talk (Hepburn & Bolden, 2012; for the first description of the conversation analytic transcription system, see Sacks, Schegloff, & Jefferson, 1974). Woffitt (2005) notes that in CA, transcripts try to capture not only what was said, but also how it was said (pronunciation, prosody, etc.) with the use of symbols or formatting, such as underlining or italics. In addition to the use of symbols or formatting, transcribers may also have the ability to add notes to the files containing such information. This, however, is largely dependant on the transcriber and the reasons for which the data was transcribed, as not all transcripts include such information and, as previously mentioned, this information further diverges

from CA at its purest form. The data from CHILDES used for this study was not transcribed adhering to the strict CA conventions (no video recordings or information on pronunciation, for example) but was still done in such a way that the general principles of CA analysis could still be followed.

2.7.4 Summary

DA is used to study spoken, written, or signed language. It involves looking at, preferably, naturally occurring language and analysing it above the sentence to gain a better understanding of the discourse. CA is a subset of DA that is focused on spoken discourse and was pioneered by Sacks, Schegloff, & Jefferson. CA examines language as a social action and has focuses on the interactional nature of conversations, the ways in which these interactions are ordered in turns, as well as how any troubles in communication are repaired. In its purest form, CA is 'data centred, not looking beyond the talk for additional information during analysis, and has a standard form of transcription in which recorded discourse is transcribed and analysed. The transcribed data for this study was looked at from a CA point of view, with a specific focus on repairs in conversations in the form of PDS. CA is appropriate when looking at PDS as they are used in naturally occurring language during parent-child interactions. Lanza notes that they have been investigated by conversation analysts for the functional work they accomplish in interaction (2004), mainly the role they play in repairing otherwise 'problematic' discourse involving bilingual children using a language not understood by a parent or seen as 'inappropriate' in the conversational context. As the data for this study was not available transcribed in the purest form of CA transcription, the analysis was done using a subset of analytical concepts of CA appropriate to get the most thorough analysis possible from the information available.

2.8 Summary

As mentioned, the objectives of this study were to see which PDS were used by parents in the corpora of transcribed, naturally-occurring conversations between parents and their bilingual children and the responses they evoked from the children. An understanding of the various fields of study covered above is necessary as they all play a role in reaching these objectives and are all interrelated. Discussion of *bilingualism as a first language* and *minority language maintenance* was required as this study deals with children being raised bilingually, with one of their languages being a minority language in a majority language setting (see chapter 3 for more details). An understanding of *family language policies* and the ways in which parents influence their child's language use through *PDS* and how they play a role in a child's *language socialization* was also required. Finally, given the nature of the data and methodology of this study, a brief overview of *discourse analysis* and its subfield *conversation analysis* was also necessary to fully understand this study. With this background in mind, the next chapter provides details on the methodology of the study.

Chapter 3: Methodology

3.1 Introduction

This chapter outlines the methodology used for this study, starting with the research questions guiding the study, followed by the data and procedures used to answer these questions. As this study is a corpus study, a description of the data source, TalkBank and CHILDES, is required, as well as an overview of the Pérez-Bazán (2005) study from which the data was originally used. The overview is then followed by similarities and differences between Pérez-Bazán (2005) and the current study. Information on the corpora and participants is then presented and discussed, and the procedures applied to the data are detailed. Finally, acknowledgments and a brief discussion of the methodological limitations of the data and procedures are given.

3.2 Objectives and Research Questions

As discussed in chapter 1, this study has three main objectives. The first is to see which PDS were used by the parents when encouraging the use of the target language. The second is to see how the children respond to each PDS used. Building on this second objective, the final goal of this study is to see if the children's responses could be used to determine which of the PDS used by the parents were the most successful in encouraging the child to use the target language. In order to reach these objectives, the following research questions were asked:

1. What was the frequency and complexity of use of the majority and minority languages by the parents and children in the corpora?
2. Which parental discourse strategies were used by the parents, if any, to encourage the children's use of the minority language and what was the language of response of the children?

3. Based on the language of response of the children, which of the parental discourse strategies used were the most successful in encouraging the use of the minority language?

As the research questions are interrelated and lead into one another, the data was analysed in such a way that allowed for the answers of one to lead to the answers of the others. In order to determine the successfulness of the PDS (question 3), it was first necessary to address question 1 and note the language of utterances used by each participant in the corpora. After noting the language of utterances, any PDS used by the parent(s) to influence the child's use of the minority language were then noted to answer the first part of question 2, followed by the language of the child's responses to the strategies used to answer the second part. To answer question 3 (the successfulness of the PDS), answers to question 1 (the language of utterance), and the two parts of question 2 i) the PDS used by the parents and ii) language of the child's response to the PDS) were then used in unison to measure the success of the PDS in influencing the child to use the minority language.

3.3 Data Collection

3.3.1 Talk Bank and CHILDES Database

The data for this study was collected from talkbank.org. TalkBank is an open-access, large-scale database comprised of multiple corpora of spontaneous speech collected by various researchers, and was created to give a platform to share collected data. All data is freely available under the Creative Commons CC BY-NC-SA 3.0 license, which governs the use of all TalkBank data. The database, maintained by Brian MacWhinney of Carnegie Mellon University, states that the goal is to foster fundamental research in the study of human and animal communication (MacWhinney, 2000). A subset of the TalkBank database is the *Child Language Data Exchange System*, or CHILDES (MacWhinney, 2000; MacWhinney & Snow, 1985). CHILDES is the child language component of the TalkBank system and is well

known and widely used in various disciplines, including linguistics, psychology, speech language pathology, etc. CHILDES initially started with corpora documenting the development of monolingual children (i.e. first language acquisition) but has more recently grown to include various bilingual corpora as well. Due to the nature of this study, only the CHILDES section of the TalkBank database was used. Past research using or advocating the use of CHILDES in linguistic research includes Biber, Conrad & Reppen (1998), Lanza, (2007), Lightbown & Spada (2013), Mackey & Gass (2015), among many others.

3.3.2 Components of CHILDES

According to TalkBank (2000), CHILDES is made up of three elements, or tools, used for data transcriptions and interpretation. The first is the CHAT, or *Codes for the Human Analysis of Transcripts*, transcription and coding format. All transcripts in the CHILDES database have been transcribed using the CHAT transcription system using special formatting and transcribing conventions. CHAT is an international standard for transcribing human speech and was developed in collaboration with child language specialists worldwide (De Houwer, 2009). CHAT transcriptions follow a basic format, featuring one utterance per line. These utterances were also coded (labeled) based on the speaker of the utterance (see appendix for examples). Depending on the intended use of the transcripts, these transcripts may include additional coded lines to refer to the utterance they immediately follow. This additional coding may include, but is not limited to, context, physical actions of the participants, notes on the utterance such as pronunciation, grammatical features such as morphemes, as well as non-verbal cues noticed by the transcribers. In addition to the coding in the original files provided by the original researchers, additional lines of coding may be added by users, again following the basic CHAT rules, to suit their research needs. Such additional information may include language of utterance, discourse strategies, etc., all in

reference to the utterance they follow. More information on these basic coding formats and rules can be found on the database (see MacWhinney, 2000).

The second part of CHILDES is CLAN, *Computerized Language ANalysis*. CLAN is the software program used to read and analyse the transcribed data found on CHILDES. Leonid Spektor of Carnegie Mellon University specifically designed CLAN to analyse data transcribed in the CHAT format by allowing the user to use set commands (see appendix for examples) in a way that suits their research goals. Elements of data that can be analysed in CLAN include lexical diversity, morpheme counts, calculating MLU, the number of utterances, number of code-switches, among others. CLAN was further designed to analyse the data by running frequency analysis, searching for specific codes, etc.

The third ‘tool’ is the accessible database itself, CHILDES, in which all transcripts contributed by researchers worldwide are freely available for download and online use. Together, these three tools help to analyse and obtain better data in a consistent transcription system, sharing data of children of various ages and languages.

3.4 Corpora and Participants

Using the CHILDES database, this study analysed transcripts from the Bilingual Spanish-English corpus “*Perez*”. This corpus includes 6 bilingual subcorpora comprised of transcripts of data collected and used by Pérez-Bazán for her 2005 study. The transcripts were developed from audio recordings of 6 children’s spontaneous speech with one or more of their parents. Although I used the data provided by Pérez-Bazán, this study involved inserting additional coding and using the data in ways that were different than the original purposes of the previous researchers (explained below).

3.4.1 Pérez-Bazán (2005) Study⁷

As mentioned, the *Perez* corpus was compiled by María Jesús Pérez-Bazán and used in her 2005 study, *¿Qué será, será?: A Methodological Tool for Predicting Early Bilingualism in a Family Setting*. This study was designed to introduce an original tool of assessment to predict whether a child exposed to two languages from birth from their parents will develop balanced bilingual language abilities. Pérez-Bazán analysed her original transcribed data, as well as interviews with the parents, according to dependent variables based on aspects of parental input, and independent variables related to child linguistic behaviour (discussed below). She also looked at a number of contextual variables that reflected the linguistic situation of the children and their parents, then ran a sequence of statistical tests to determine which elements are more relevant in determining the likelihood of a child becoming a balanced bilingual. By looking at aspects of the bilingual settings and bilingual competence and performances of the children, Pérez-Bazán found that parental input played a crucial role in bilingual development. Specifically, Pérez-Bazán found that “providing the child with enough exposure to the minority language in the home at the onset of grammar acquisition and speech production” (2005, p. 1822) is key in the development of a reasonably balanced bilingual and stated that “in such a non-supportive monolingual society it is projected that minority language input needs to be no less than 90% from each parent to reach a linguistic development comparable to monolinguals” (2005, p. 1822) Furthermore, Pérez-Bazán states that children growing up under the particular sociolinguistic circumstances of her participants (without minority language support) acquire the majority language regardless of the strategy (or family language policy) the parents use.

Because the data for the current study was originally used in Pérez-Bazán (2005), the current study could be seen as a replication study; however many elements of the two studies

⁷ This study was not discussed in the previous chapter as it is more important methodologically and is best discussed here.

were quite different as this current study had a much narrower scope. Specifically, this study did not do a statistical prediction model in an attempt to predict the bilingual abilities of children, a major difference in both the interests and scopes of the study. In regards to the variables under investigation that do overlap, this study looked at only one of the independent variables of the linguistic input compared to the nine looked at by Pérez-Bazán, and only one dependant variable, rather than five, when looking at children's linguistic behaviour. The similarities and differences of these two sets of variables in the current study and Pérez-Bazán (2005) are discussed below.

3.4.1.1 Analysis of Parental Input and Child Linguistic Behaviour by Pérez-Bazán

As Pérez-Bazán explains, the independent variables “encompass parental linguistic circumstances as conditioning factors in child linguistic development, as well as particulars of the language used in family conversations obtained from recorded interactions.” (Pérez-Bazán, 2005, p. 1822). The nine independent variables in regards to parental input included:

1. Parental linguistic competence in each language
2. Parental attitudes to child bilingualism
3. Language exposure patterns in the home
4. Time under parental supervision
5. Language exposure outside the home
6. Parental language input in conversation⁸
7. Context/activity of conversation
8. Topic of conversation
9. Parental responses to child’s mixing and/or inappropriate choice of language

⁸ Variables 6 and 9 are most relevant as they were also the variables under investigation for this study.

The different independent variables were divided into categories according to the source of information. The author also discusses *preconditions*, divided into parental linguistic background and language exposure in the home based on information from interviews. The recorded, or *Conversational*, data revealed parental language use and context with the child. Figure 3.1 is a summary of the independent variables as shown in the Pérez-Bazán (2005, p. 1823) study:

Figure 3.1. Independent Variables Under Investigation by Pérez-Bazán

INDEPENDENT VARIABLES (parental input)		
SOURCE	FOCUS	VARIABLE
Preconditions (anecdotal)	Parental Background	Parental Linguistic Competence
		Parental Attitudes to Child Bilingualism
	Language Exposure	Language Exposure Patterns in the Home
		Time Under Parental Supervision
		Language Exposure Outside the Home
Conversational Data (empirical)	Input	Parental Language Input in Conversation
		Context / Activity of Conversation
		Topic of Conversation
		Parental Response to Child's Mixing

Pérez-Bazán looked at the *Parental Language Input in Conversation* that consisted of a sequential turn-by-turn breakdown and categorized into Spanish, English, and mixed speech. Pérez-Bazán found the “base language” of the conversation based on the absolute majority of the initiating turns by the parent(s) in one specific language in each recording session, then added all percentages of turns of parental language use to determine the amount of linguistic input the child received in the home in both parent-child dyadic and triadic interactions.

Parental Response to Child's Mixing and/or Inappropriate⁹ Choice of Language was looked at to provide information on the effects of parental feedback when the child mixes and/or “make inappropriate language choices (not corresponding to that of the interlocutor)”

⁹ There is no value judgement in the term *inappropriate* in regards to language choice; only that it is not the language used or preferred by the parent in the particular setting/conversation.

(Pérez-Bazán, 2005, pg. 1825). This variable was categorized based on a classification of parental strategies adapted from Lanza (1992) and Mishina (1999) (as mentioned in chapter 2). The strategies were measured in percentages of frequency with respect to their categorical distribution and were reduced to two categories: attempt to correct the child (minimal grasp and expressed guess) or acceptance of the child's utterance (adult repetition, move-on, and code-switching).

Although similar in the analysis, there were important differences in the ways in which these elements were coded and analysed for this study. For variable 6, the main difference between the Pérez-Bazán (2005) study and the current one was that this study looked at all child turns in the conversation, not just the child turns that formed adjacency pairs with parental turns. This was done as it was felt that all child speech was important to include as it gave a more holistic view of the child's language use compared to only looking at adjacency pairs. If limited to only looking at adjacency pairs, we do not get a holistic view of the language input the child receives. In addition, Pérez-Bazán only categorized the language use into Spanish, English, and mixed. This study further broke down the category of 'mixed' by categorizing utterances into mixed: equal, mixed: English dominant, and mixed: Spanish dominant (see section 3.2.2 for descriptions and further justification).

For variable 9, the main focus of this study, the PDS were not reduced to two categories for a binary approach, but were rather analysed on their own, as per Lanza (1992, 1997), as well as the additional strategies proposed for the purposes of my analysis (see section 3.2.3 for further information). This was done as this study wanted to look at a wider range of strategies seen in the literature, rather than reducing the PDS to 'attempts to correct' or 'acceptance of the child's utterance'.

Following the analysis of parental input, Pérez-Bazán looked at five dependant variables to analyse the linguistic behaviour of the children. These dependant variables were

broken down into the categories of *Child Bilingual Competence* (1-3) and *Language Use* (4-5):

1. Grammatical Complexity
2. Lexical Diversity
3. Morphosyntactic Development
4. Code of Response to Input Language in Conversation
5. Amount of Mixing of Child Codes in Conversation

Grammatical complexity was measured by MLU in morphemes and words by using a sample of 50 utterances (following Miller, 1981; Pan, 1994) from each child. In order to measure actual child competence in language production, Pérez-Bazán excluded any imitations, repetitions, and yes/no answers produced by the child. A word and morpheme MLU analysis (measured by dividing the number of words or morphemes by the number of utterances) was also done on the five most complex sentences in the recording sessions for each month “the upper limits of the child’s production at a given point in time” (Pérez-Bazán, 2005, p. 1826). Lexical diversity was measured by the type-token ratio index (measured by dividing the number of different words by the total number of words produced in a speech sample as per Templin, 1957). Again, 50 utterances from each group of recordings was used. Morphosyntactic development of each child was measured using scales of grammatical development in monolinguals of both Spanish (Hernández-Pina, 1990) and English (Miller, 1981).

The child’s language of response to the language used by their parent was measured in conversational turns, but only those that followed a parent’s initiating turn (forming adjacency pairs) were included in the analysis. Percentages of the child’s turns with Spanish, English, and mixed utterances in conversations with each parent and with both parents together were calculated. Mixed utterances were classified within the individual utterance

(the use of both languages in a single utterance), as well as across utterances (the use of both languages throughout various utterances within a single conversational turn, as described earlier). Pérez-Bazán also looked at the absolute percentages of language output of the child compared to parental input received in order to determine the percentage of language use correlation.

3.4.1.2 Comparison of the Current Study and Pérez-Bazán (2005)

Although this study used the same data and similar tools for analysis (discussed later in this chapter) as Pérez-Bazán, this study is not a replication as the research questions and goals of each were different. This study focused on a more in depth analysis of two of the nine independent variables, *Parental Language Input in Conversation* and *Parental Response to Child Mixing*, and was mainly concerned with the ‘Empirical data’ section of her study, or the input the children received. Although they were under investigation in both studies, they were coded and analysed differently.

Similarly, Pérez-Bazán’s five dependant variables used to analyse child linguistic behaviour in respect to language competence and use were reduced to two variables for this current study. The current study was concerned with the language use of the child, as well as the child responses to the strategies used by the parents. Because of this, the most important variable with respect to the children’s language use was the language in which they responded to their parents, followed by the grammatical complexity in word MLU. This study looked at all child turns in the conversation, not just the child turns that formed adjacency pairs with parental turns, in order to get a more global view of the child’s language use. In order to calculate the word MLU, the current study looked at all child utterances in the corpus, rather than only 50 utterances per child. This was done in order to get a more in depth analysis of the children's use of each language.

Unfortunately, there was no data or examples of the coding by Pérez-Bazán available in the published study or in the transcripts submitted by the author to the CHILDES database, making it impossible to do an exact comparison of data coding.

3.4.2 Corpora and Participant Information

The *Perez* corpus consists of 6 subcorpora, with a total of 51 transcripts comprised of 8,381 utterances (28,751 words), and totalling approximately 21 hours and 55 minutes¹⁰ of recordings all together. These transcripts include conversations of 6 children ages 1;8 to 3;3 and their parent(s), for a total of 16 participants. This information is detailed in table 3.1 below.

Table 3.1. Individual Corpus Information

Child	Age at beginning and end of recordings	Parents	Number of Files*	Total Recording Time	Total Number of Utterances (Words) from Children and Parents
Alberto	1;8–3;0	Mother Father	15	5h22min	2,371 (7,289)
Antonio	2;11–3;1	Mother Father	3	1h00mm	694 (2,828)
Carla	2;0–3;3	Mother Father	21	10h36min**	1,858 (6,731)
John	2;0–3;3	Mother Father	6	2h32min	1,645 (6,065)
Shelia	2;2–2;8	Mother	2	1h30min	1,225 (3,799)
Tina	2;2–2;11	Mother	4	1h35min	588 (2,039)
*Number corresponds to the total number of files (transcripts) available in each corpus					
**Total time for 19 files as two files did not list recording times					

As reported by Pérez-Bazán, all children were from nuclear middle-class families and exposed to both English and Spanish from birth at home. At the time of recording, the families were living in areas of the United States of America in which English was the

¹⁰ Total recording time is approximate as two of the 51 files did not list recording times.

majority language, including Ann Arbor, Michigan and Payson, Utah. No further information on the linguistic communities of the areas was provided; however the Hispanic population of the communities at the time of recording were 3.3% and 6.8% respectively (U.S. Census Bureau, 2000). The linguistic competence (syntax, phonetics, and lexicon) of the parents in English and Spanish was evaluated by Pérez-Bazán using the ACTFL Oral Proficiency Guidelines and reported on a binary scale: 0 for ‘none to advanced’, and 1 from ‘advanced to native’ (criticisms of this scale are discussed in chapter 5). All parents were reported as having ‘advanced to native’ linguistic competence in English, but their linguistic competence in Spanish differed and is outlined below in table 3.2.

Table 3.2. Parental Language Competence as Reported by Pérez-Bazán

Child	Mother		Father	
	English	Spanish	English	Spanish
Alberto	1	1	1	0
Antonio	1	1	1	0
Carla	1	1	1	1
John	1	0	1	1
Shelia	1	1	1	0
Tina	1	1	1	1

0 = insufficient evidence, novice, intermediate-advanced; *1* = advanced, superior, native

The first corpus is that of Alberto, aged 1;3–3;0 at the time of recording. Alberto’s mother is a native Spanish speaker, and his father is a native English speaker and was learning Spanish as a second language, rated as having a linguistic competence of 0 by Pérez-Bazán (this is of particular interest as it plays a role in the father’s language tendencies with Alberto. This is discussed in chapter 5). There were 15 transcripts in this corpus, including 2,371 utterances (7,289 words) by the child, mother, and father over 5.22 hours of recording.

The second child under investigation was Antonio, aged 2;11–3;1. There are 3 transcripts in the Antonio corpus, totalling 1.00 hours and including 694 utterances (2,828 words) by the child, mother (L1 Spanish), and father (L1 English, with a Spanish competence of 0).

The third child in the corpus was Carla, aged 2;0–3;3 at the time of recording. The corpus also includes the child's mother, father, both of whom were reported as having advanced to native abilities in Spanish. There were a total of 1,858 utterances (6,731 words) in this corpus, with an approximate recording time of 10.36 hours (recording time for two files was not listed). Some files also included dialogue from a Spanish-speaking investigator and an English-speaking friend of the child. Utterances by the investigator and friend, as well as utterances by the parents and child under investigation in response to these individuals, were not included in the analysis because they comprised less than 3% of the total number of utterances in this child's corpus. Furthermore, these dialogues were both beyond the scope of this study and irrelevant to the study of PDS as they did not include any child-parent interactions.

John, the fourth child in the corpus, was aged 2;0–3;3 at the time of recording, and was spoken to in English by his mother (L1 English), and Spanish by his father (L1 Spanish). There are a total of 6 transcripts totalling 2.32 hours, and comprised of 1,645 utterances (6,065 words).

The fifth child, Sheila, was aged 2;2–2;8 at the time of recording. There were 2 transcripts included for Sheila, covering 1.30 hours of recording. These transcripts included 1,225 utterances (3,799 words) between the child and her mother, a native Spanish speaker. There were also two brothers included in the transcripts, however their levels of interaction with the child and the mother were quite limited and were not included in the data under analysis. The mother and child's interactions with the two brothers were also removed from

the analysis as they are not related to the study of PDS and consisted of less than 2% of the corpus. Her father, an English native, was not included in any of the recordings.

The sixth and final child under investigation, Tina, was aged 2;2–2;11 and recorded with her mother (L1 Spanish) over 1.35 hours. The 4 transcripts included 588 utterances (2,039 words). The father was not present at the time of any of the recordings, but was reported to have ‘advanced to native’ linguistic competence in English and Spanish.

3.5 Procedure

Before discussing the procedure in which the data was coded and analysed, it is first important to define how the data was broken down. As mentioned in chapter 2, the idea of how a child utterance is determined has had many definitions. The classification of *utterance* used by Pérez-Bazán in her analysis was identified by a single intonational contour, as per Lanza, 1997 (p. 124). Lanza’s same classification was also used in this current study as the data was previously transcribed as such. Furthermore, when dealing with language mixing within the data, conversational turns at talk – an utterance or group of consecutive utterances bounded by a pause, or by an utterance of another participant in the conversation (Lanza, 1992, p. 637) – was used as the unit of analysis.

With the above background in mind, after downloading the corpus from CHILDES, each transcript was coded for language of utterance, PDS, and child responses, and then verified by outside examiners. For the analysis, CLAN commands were used to run a frequency analysis on the languages, the PDS, and child responses previously coded. These figures were then charted and connections between the elements under investigation were concluded upon. Further descriptions of each step follow.

3.5.1 Coding of Files

3.5.1.1 Existing Coding From Pérez-Bazán

Each utterance was coded by participant by the original transcribers. These existing codes are per the CHAT coding conventions and included **CHI* for the child participant, **MOT* for their mother, and **FAT* for their father. Additional coding that was included in the transcripts included context, emotions, and file information. For example, the code *@Activities* is used to give context to the conversation (e.g. *drawing, eating lunch*), and **CHI: &=laugh* means the child participant is laughing rather than speaking.

3.5.2.2 Additional Coding For This Study

In order to answer the research questions for this study, further coding was required. This coding was done by myself and included specific codes for language of utterance, PDS, and child responses¹¹ (further described below). Coding and review of all 51 files took approximately 36 hours. In order to verify the coding before analysis, 12 (24%) of the 51 files were checked by two additional readers to ensure consistency and accuracy (more detail in section 3.5.3).

3.5.2.3 Coding By Language of Utterance

The first research question for this study was, “*What was the frequency of use of the majority and minority languages by the parents and children in the corpora?*”. In order to answer this question, each utterance in the 51 transcripts was coded by language and a frequency analysis of the language of utterance by the parents and the child was done. The languages included were:

1. English
2. Spanish
3. Mixed: Equal

¹¹ See Appendix A for all commands used.

4. Mixed: English Dominant
5. Mixed: Spanish Dominant
6. Ambiguous

Utterances coded as *ambiguous* were utterances where it could not be reliably determined whether the language was English or Spanish and included no other words than those that are found in both English and Spanish and have the same meaning, such as “*no*”, or proper nouns such as the child’s name. Such utterances can only be distinguished phonologically, information that was not included in this particular set of corpora (see limitations below). *Mixed: equal* utterances were coded as such if there was an even number of words (50/50) in both English and Spanish, counting only after excluding ambiguous and incomprehensible words. *Mixed: English dominant* and *mixed: Spanish dominant* utterances were coded as such if they included more than 50% of the respective dominant language, again counting only after excluding ambiguous and incomprehensible words. This was done as I feel there is a notable difference between mixed: equal and mixed: English dominant or mixed: Spanish dominant utterances when it comes to language input and output. For example, the utterance, “*El libro azul y el lápiz rojo are expensive.*” [The blue book and the red pencil are expensive.] includes seven Spanish words and two English. If classified simply as mixed with no distinction of prevalence of one language over the other, we are not getting the full picture of the language input from the parents or the child’s linguistic dominance of each language.

In addition to looking at the frequency of the language of utterance by the parents and the child, the word MLU, a basic measure of utterance complexity, was also calculated. The word MLU was calculated for all five types of utterance: English, Spanish, mixed: equal, mixed: English dominant, mixed: Spanish dominant, and ambiguous. The analysis for word MLU was done in CLAN using the same coding used for the frequency of language. This was done to compare the use of the two languages by the parents and that of the children. The

word MLU of the parents was of interest as it gives an idea of the amount of input the child receives in both languages. The word MLU of the child was of interest as it is a way of measuring a child's bilingual language development, as well as any preference to use the majority or minority language with their parents. Although it would have been of additional interest to measure the child's relative use of the majority and minority language with each parent, it was beyond the scope of this study to do so.

The question of whether word MLU comparisons are appropriate to gauge a child's bilingual language development depends largely on the language pairing. Morpheme MLU is largely considered more in-depth and more refined when measuring a child's monolingual language development as it shows whether the child uses shorter or longer words, or simpler or more complex words. Although Spanish and English are dissimilar morphologically as words in Spanish have more inflectional morphology, De Houwer (2009) concluded that the overall word structure of English and Spanish are similar enough to use word MLU when studying bilingual children's speech. Further evidence for word MLU comparisons for English and Spanish are seen in Silva-Corvalán and Sánchez-Walker (2007), who found that not only are they appropriate, they are more appropriate than morpheme MLUs because of the morphological differences between the two languages. They note that Spanish has relatively more complex morphology compared to English; including a higher number of verbal morphemes for person and number, gender marking on determiners, nouns, and adjectives (Silva-Corvalán & Sánchez-Walker, 2007, p. 12). In other words, if using morpheme MLU, a child's Spanish utterance may seem more complex as a verb may contain more inflectional morphemes than the equivalent verb in English. As such, word MLU provides more of an equal ground on which to compare the child's bilingual development. Where this proves difficult is when dealing with utterances that include pro-drop verbs in Spanish. For example, as a pro-drop language – a language allowing for the omission of

pronouns from verbs in many cases – it is possible to drop the pronoun “Yo” [I] before the verb, saying only “Sé”, rather than “Yo sé” [I know]. The child’s use of “Sé” rather than “Yo sé” in an utterance would make both the word MLU and morpheme MLU lower, however it may show a dominance of Spanish which requires the child to know when it is appropriate to pro-drop and when it is not. This was taken into consideration when coding the transcripts for this study, however there were very few instances in which the children did not include the pronoun. Acknowledging that there is no perfect measure for comparing bilingual language development as both word and morpheme MLU have their advantages and limitations, word MLU was chosen for this study as it seemed more appropriate for the data (based on De Houwer, 2009; Silva-Corvalán & Sánchez-Walker, 2007) and was more practical for this limited-scope study.

3.5.2.4 Coding by Parental Discourse Strategy

After coding each utterance by language of utterance, the transcripts were further coded to include PDS, if applicable, in order to address the second research question, *Which parental discourse strategies were used by the parents, if any, to encourage the children’s use of the minority language and what was the language of response of the children?* In some cases, the parent used a discourse strategy, and then continued their turn with additional utterances. Some of these additional utterances may have included another PDS before the child responded. Such instances were coded using the two strategies, as they are both considered influences on the child to use a particular language and also show instances of interesting data that was later used for qualitative analysis (see chapter 5).

The frequency analysis for the PDS used was done in CLAN using a similar command to that of the language frequency. This was done for each parent to see not only which strategies were used overall, but to see if there was a difference in the strategies used by each individual parent.

3.5.2.5 Coding by Child Responses and the Successfulness of Strategies

In order to answer the third research question, *Based on the language of response of the children, which of the parental discourse strategies used were the most successful in encouraging the use of the minority language?*, after coding the PDS as previously mentioned, the child's language of response in their next conversational turn following each PDS was coded. The child responses included:

1. Responds in majority language
2. Responds in minority language

A methodological decision was made to group English and MED utterances together, coded as "Responds in majority language", and Spanish and MSD utterances together, coded as "Responds in minority language." This was seen as the best methodological solution rather than removing all mixed utterances or grouping them all together as there may have been responses in which the child used all but one word in either of the languages (e.g. because they lack the lexical item) and to remove such responses would not give a holistic view of their language use in response to the PDS.

A frequency analysis for the child responses was done in CLAN to see which responses were present, as well as to measure the successfulness of the PDS used by the parents in preceding turns. For the purposes of this study, response 2 is considered 'successful' when referring to the PDS used in the previous parental turn before the child's response as it shows that the child switched to the minority language.

3.5.3 Verification of coding

A percentage of the files coded in the corpus were reviewed by two additional readers to ensure accuracy and consistency in the coding. The first examiner was a trained linguist with expertise in CHILDES and CLAN, had native-like competence in English and some familiarity with Romance languages, including Spanish. The second was an English/Spanish

bilingual with native competences in both languages. This reader was not familiar with CHILDES or CLAN, and was therefore given basic training in the programs, sufficient enough to understand and edit the coded files. Although both readers had knowledge of PDS, they were given the specific definitions of the strategies used for this study as well as provided with examples from the literature. They were also familiarized with the list of child responses used for this study, as well as their definitions and examples. They were then provided with the list specific codes used for this study for language of utterance, PDS, and child response.

The transcripts containing the highest number of PDS as found by myself, totalling 24% of the Perez corpus, were given to each of the examiners and they were asked to individually review and re-code any potential errors in language, PDS, or child responses coding.

After this verification was complete, a comparison of files was done to see if any discrepancies in coding were found. In total, there were 34 discrepancies found by the examiners. These differences in coding were resolved by oral discussions between the additional readers and myself. I then made the final decisions based on the reader's comments and discussion, finalizing the coding by adhering to the strict definitions of the strategies as laid out in section 2.6. Based on these discussions and a final review, a total of 14 codes were changed throughout all 51 files.

3.5.4 Exclusions

In the Carla corpus, there were additional participants including a brother, a friend, and an investigator. Utterances by the additional individuals were removed from the coding as they were not relevant to the study. There were only two instances in which there was dialogue between the investigator and the child, both of which were exclusively in Spanish and did not involve any elements under investigation in this study. These utterances were not

included in the utterance analysis or the word MLU of the child. Utterances by the brother were in both English and Spanish, but were directed at the mother, and utterances by the friend were exclusively in English. The decision to remove these from the analysis was based on the fact that they were not part of parent-child interactions, the main focus of this study. It is important to mention that it was noted by the mother that the child speaks with her friends almost exclusively in English, and although these utterances may prove useful in measuring the child's bilingual development, they were removed from the overall analysis as they fall outside of the scope of this study.

3.6 Methodological Limitations

Difficulties and limitations of this study were mainly based on the corpus transcripts themselves. The first limitation was the various imperfections within the recordings and transcripts. Such imperfections included background noise that did not allow the transcriber to clearly hear the speech, as well as the unintelligibility of some words spoken by the participants (mainly children). The other limitation was the inability to show intent by the parents in all cases. A parent asking “*Mande?*” [*What?*] in response to a child's English utterance could be intentional in order to encourage the child to speak in Spanish, or it could mean that the parent simply did not hear or understand what the child said because of background noise, the child's pronunciation, etc. When dealing with situations like this, surrounding discourse was taken into account in order to have additional evidence showing if it was indeed a PDS or not. This is a problem in conversational analysis that is very difficult to overcome and achieve full reliability in coding in this regard. Additionally, some sections of discourse were missing or summarized, such as, “*Father continues to read the book in English*”, or, “*Parents talking with each other in Spanish*”. Although such summaries give context and may save time when transcribing or analysing data, they limit the ability to analyse all spoken input the child receives. Finally, the lack of phonological

information available made it difficult to ascertain the language of utterance. Such information would be helpful for distinguishing language of utterance in ambiguous utterances including “no”, pronounced /noʊ/ in American English and /no/ in Spanish. Therefore, utterances such as this were coded as ambiguous as the spelling, as well as meaning, is the same in both languages.

Other limitations include the fact that these corpora include child-parent interactions that included breakdowns in communication typical of young children regardless of monolingual or bilingual abilities. With limited data available (no audio or visual files), it is a challenge to determine the full situation based on transcripts only. An example of this is found in the Alberto corpus when the child asks for Ovaltine in English and the father responds in Spanish saying “*Agua por favour*” [Water, please]. The child then cries and repeats his request in English, followed by another response by the father in Spanish requesting that Alberto asks again in Spanish. Situations like this beg the question if the child is refusing to speak in Spanish, or simply crying because he wants Ovaltine rather than water. This situation, and others like it, is further discussed in chapter 5.

Finally, the limited information on parental linguistic competencies in both English and Spanish available in CHILDES or in Pérez-Bazán (2005) made it difficult to assess the language use by the parents when it came to analysing and interpreting the results. This is discussed further in chapter 5.

3.7 Summary

This chapter outlined the objectives of this study, as well as the methodology used and the data to which it was applied. An overview of this study was given, as well as a discussion and comparison of the Pérez-Bazán (2005) study from which the data was originally used. A description on the data source, TalkBank and CHILDES, was given, as well as information on the *Perez* corpus and the participants involved. The procedure of the

coding and analysis of the data was outlined, including a description of the process of coding by language, PDS, and child responses. Finally, the methodological limitations of the study were acknowledged and discussed. The results found by applying the aforementioned methodology to the data discussed are presented in the following chapter.

Chapter 4: Analysis and Results

4.1 Introduction

This chapter reports on the results of quantifiable data used to answer the research questions of this study. The group results are reported in the first section of the chapter, followed by the results for each of the six children and their parents. Each section includes the findings for the language use and complexity of the participants, the PDS used by the parents, and the responses by the children which are used to measure the success of the strategies in encouraging the use of the target language, Spanish. As mentioned in chapter 3, the results will be presented using descriptive statistics.¹² After analysing the data, many interesting qualitative observations were made that can be attested to in the richness of larger discourse samples. These qualitative observations, along with samples of discourse from some of the corpora, will be addressed in the discussion chapter.

4.2 Group Results

This section will report the overall findings for all six children and their parents on the family language use, the PDS used by the parents, followed by the language of response by the children in relation to the PDS, showing their overall success in influencing the use of the minority language.

4.2.1 Family Language Use

The following data shows the overall use of English and Spanish, the majority and minority languages, by all participants. There was a total of 8,381 utterances (28,768 words) in the Perez corpus. The distribution of these utterances after being coded by language for all

¹²Results are presented using descriptive statistics as inferential statistics with significance values were beyond the scope of this work.

participants (six children and 10 parents) is displayed in table 4.1 (individual participant language use is discussed in subsequent sections). As outlined in chapter 3, the utterances were coded as English, Spanish, mixed: equal, mixed: English dominant (henceforth MED), mixed: Spanish dominant (henceforth MSD), and ambiguous. When discussing usage of the languages, mixed: equal and ambiguous utterances were included in the overall percentages of utterances, but are irrelevant when it comes to looking at the prevalence of English or Spanish. This is because ambiguous utterances, as mentioned earlier, include only words that exist and have the same meaning in both languages (e.g. “no”, “Ovaltine”, “Tomas”, etc.), and mixed: equal utterances are made of an equal number of English and Spanish words (after excluding ambiguous words).

Table 4.1. Total Utterances and Words in the Perez Corpus by Language

Language of Utterance	Number of Utterances (Words) by Parents	Number of Utterances (Words) by Children	Total Number of Utterances (Words)
English	597 (2,339)	1,332 (3,961)	1,929 (6,300)
Spanish	3,959 (15,567)	1,674 (4,653)	5,633 (20,220)
Mixed: Equal	35 (106)	62 (179)	97 (285)
Mixed: English Dominant	38 (226)	71 (379)	109 (605)
Mixed: Spanish Dominant	73 (434)	40 (205)	113 (639)
Ambiguous	221 (326)	279 (376)	500 (719)
Total	4,923 (18,998)	3,458 (9,753)	8,381 (28,751)

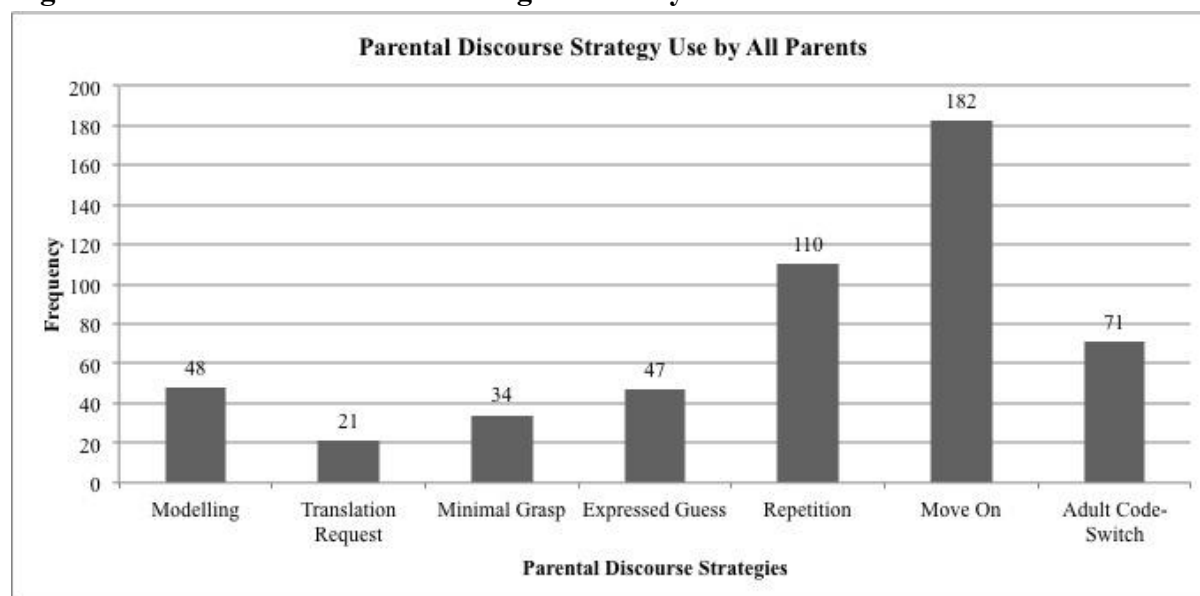
Overall, there were more Spanish than English utterances found in the corpora, with a much higher word count as well. The distribution of the utterances by language for each parent and child is discussed in the individual corpus sections that follow. The high number of ambiguous utterances is generally due to the use of proper nouns, mainly the names of the

children, and words such as “no” (with the same spelling and meaning in both languages). As discussed in chapter 3, it is impossible to know the language in which these words were said as there was no audio available.

4.2.2 Parental Discourse Strategies Used

The PDS looked for in the data included the strategies mentioned in Lanza (2004), including minimal grasp, expressed guess, repetition, move on, and adult code-switch, as well as two additional strategies, translation request, and modelling (discussed in section 2.6.1). In total, there were 513¹³ PDS found in the Perez corpus. These 513 strategies were used by the 10 parents of the six children (for two children, only the mother was present during recording). The distribution of these strategies is indicated in figure 4.1. After looking at these overall results, it is important to keep in mind that it is necessary to further look at the usage of the strategies by each parent, as the reasons for using the strategies vary depending on the overall language use of the child and the need for PDS (discussed in chapter 5). This will be done in the subsections for each child.

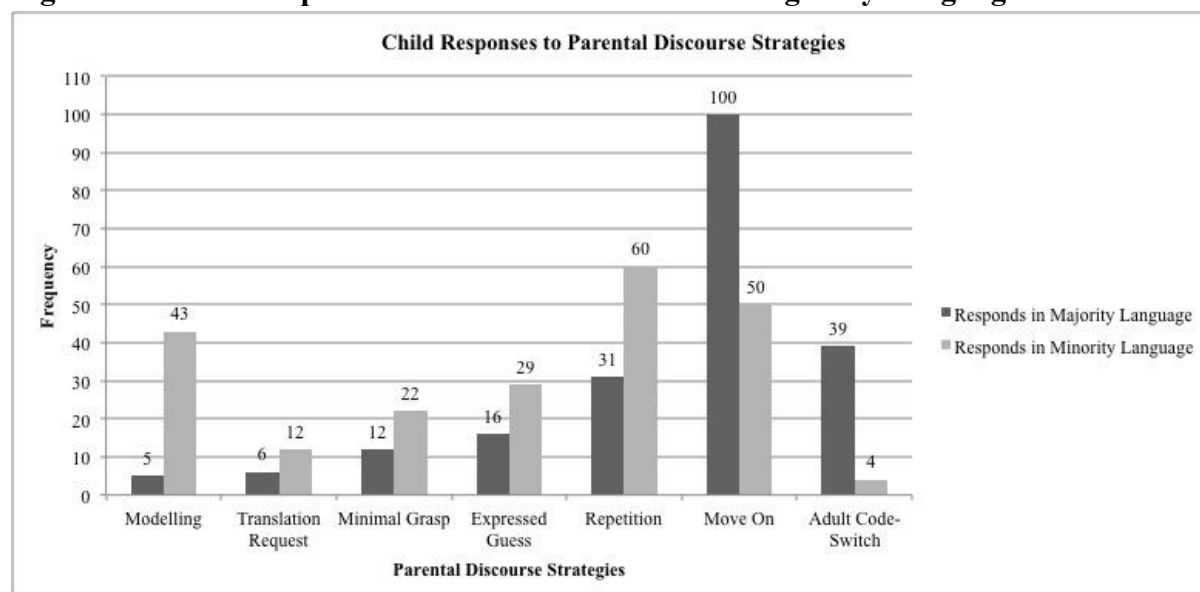
¹³ It is important to note that the number of English and mixed utterances of the children do not match the number of PDS found as there were many times that the child would say multiple utterances before the parent would respond. This is due to the decision to count all utterances in the corpus for a more holistic view of the child’s language use, rather than only those that form adjacency pairs or calculating the number of turns. This difference in number had no effect on the results as a comparison between these two figures was not part of, or relevant to, this study.

Figure 4.1. Parental Discourse Strategies Used by All Parents

Of the 513 instances of PDS used by all parents, the move on strategy was seen the most, occurring 182 times and accounting for 35.5% of all strategies used, whereas translation request was only used 21 times, or 4.1%. This is a common trend that will be seen throughout the individual results as well, perhaps due to the flow of communication the move on strategy allows. This will be further discussed in chapter 5.

4.2.3 Child Responses to Parental Discourse Strategies

The data presented below shows the overall responses of the children to the parents' use of the PDS. There was a total of 481 responses found for the six children studied. This number of responses compared to the number of PDS used (513) is lower (a total difference of 82) as there were times in which the parents used multiple strategies within their turn at talk (as discussed in chapter 3), and the children did not respond, or the child's response was mixed: equal or ambiguous, making it impossible to classify. If the child's response was a MED or MSD utterance, they were classified under the dominant language (i.e. Spanish and MSD were calculated together). Using this method of calculation, of the 431 responses recorded, 209 (48.38%) were in English, and 220 (50.93%) were in Spanish. The distribution of the responses to each PDS is seen below in figure 4.2.

Figure 4.2. Child Responses to Parental Discourse Strategies by Language

The results in figure 4.2 can be used to show the success rate of each strategy overall, one of the research questions for this study. As mentioned previously, for this study, the successfulness of a strategy is determined by the child's use of the target language following the use of a PDS by their parent. It also shows that all PDS, including the two not originally included by Lanza, were, in fact, used by the parents. Overall, modelling, translation request, minimal grasp, expressed guess, and repetition are the strategies that generated more minority language responses than majority language responses in the children; whereas, move on and adult code-switch generated a higher number of majority language responses than minority language responses.

To further unpack the data from figure 4.1 and figure 4.2, table 4.2 shows the success rate of each individual strategy. As there is a difference in the number of PDS used and child responses, the successfulness is calculated on the number of total responses by the children after removing this difference (shown in italics in this table as well as the same tables in the individual results).

Table 4.2. Success Rate of Parental Discourse Strategies Used

Parental Discourse Strategy	Times Used	All Responses (Difference)	Responses in Majority Language	Responses in Minority Language	Rate of Success
Modelling	48	48 (0)	5	43	89.58%
Translation Request	21	18 (3)	6	12	66.67%
Minimal Grasp	34	34 (0)	12	22	64.71%
Expressed Guess	47	45 (2)	16	29	64.44%
Repetition	110	91 (19)	31	60	65.93%
Move On	182	150 (32)	100	50	33.33%
Adult Code-Switch	71	43 (28)	39	4	9.30%

Looking at the success rates of the PDS above, it can be seen that modelling, followed by translation request were found to be the most successful in encouraging the children to use the minority language. Furthermore, adult code-switch and move on were the least successful, with the children responding more in the majority language more often to these strategies. These findings are consistent with Lanza's monolingual to bilingual continuum further discussed in chapter 5.

4.3 Individual Corpus Results

Moving on to the level of individual results, the sections below present data on the three main elements under investigation (language use, PDS use, and child responses) as seen in each corpus. The sections are labelled using the name of the child under investigation, which also corresponds to the (sub)corpora names used by Pérez-Bazán in the CHILDES database. A brief summary of the parents' language competencies as reported by Pérez-Bazán is given, along with the number of transcripts (which correspond to the number of recordings), the total length of the recordings, as well as the child's age at which they were

recorded. Similar to the group results, for each (sub)corpus, the total number of utterances by each child and their parents is listed, followed by a breakdown of these utterances by language. The PDS used by each parent is listed, along with the child's language of response, showing the successfulness of the strategies for each individual child. As mentioned in chapter 3, the word MLU is also listed as it is commonly used to measure lexical development and can give insight into which language the child may have more dominance in and is able to produce longer and potentially more complex utterances. The word MLU for the parents is also listed as it allows for a more in-depth understanding of the linguistic input the child is exposed to. For example, if a parent spoke five utterances in English and one in Spanish, it may appear that the child is receiving more English input if only the number of utterances was listed. Listing the word MLU is helpful to show that if, for example, those five English utterances consisted of only a single word each, whereas the one Spanish utterance contained eight words, it could be determined that the child is receiving more (and more complex) Spanish input. As stated earlier, word MLU has been seen as an appropriate measurement of comparison for this particular language pairing.

4.3.1 Alberto

Alberto was between 1;3 and 3;0 years of age at the time of recording. His mother was reported to be a native Spanish speaker, with a high level of English, and his father was a native English speaker who was reported as having a linguistic competence of 0 (novice to advanced intermediate) in Spanish. There was a total of 2,371 utterances (7,289 words) in the 15 transcripts, shown in table 4.3, covering 5.22 hours of recording.

Table 4.3. Total Utterances and Words in the Alberto Corpus

	Alberto	Mother	Father	Total
Utterances (Words)	779 (2,120)	583 (2,009)	1,009 (3,160)	2,371 (7,289)

4.3.1.1 Family Language Use

Table 4.4 shows the number of utterances and word MLU in the Alberto corpus. As seen, Alberto showed a preference for English over Spanish when communicating with both parents. Of the 779 utterances spoken by Alberto, 447 were in English (57.38%), compared to 195 in Spanish (25.03%). Even when mixing the two languages, there was a 7 to 1 ratio of MED to MSD. When looking at the word MLU, Alberto shows a higher dominance in English (3.37) than in Spanish (1.79), even when mixing (i.e. MED utterances have a higher word MLU than MSD utterances).

Table 4.4. Utterances, Words, and Word MLU by Language in the Alberto Corpus

	Alberto		Mother		Father		Total Utterances (Words)
	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	
English	447 (1,506)	3.37	81 (295)	3.64	175 (715)	4.09	703 (2,516)
Spanish	195 (349)	1.79	475 (1,668)	3.51	773 (2,323)	3.01	1,443 (4,340)
Mixed: Equal	6 (19)	3.17	0 (0)	0.00	6 (23)	3.83	12 (42)
Mixed: English Dominant	21 (96)	4.57	0 (0)	0.00	2 (9)	4.50	23 (105)
Mixed: Spanish Dominant	3 (11)	3.67	2 (7)	3.50	6 (25)	4.17	11 (43)
Ambiguous	107 (139)	1.30	25 (39)	1.56	47 (65)	1.38	179 (243)
Total Utterances (Words)	779 (2,120)		583 (2,009)		1,009 (3,160)		2,371 (7,289)

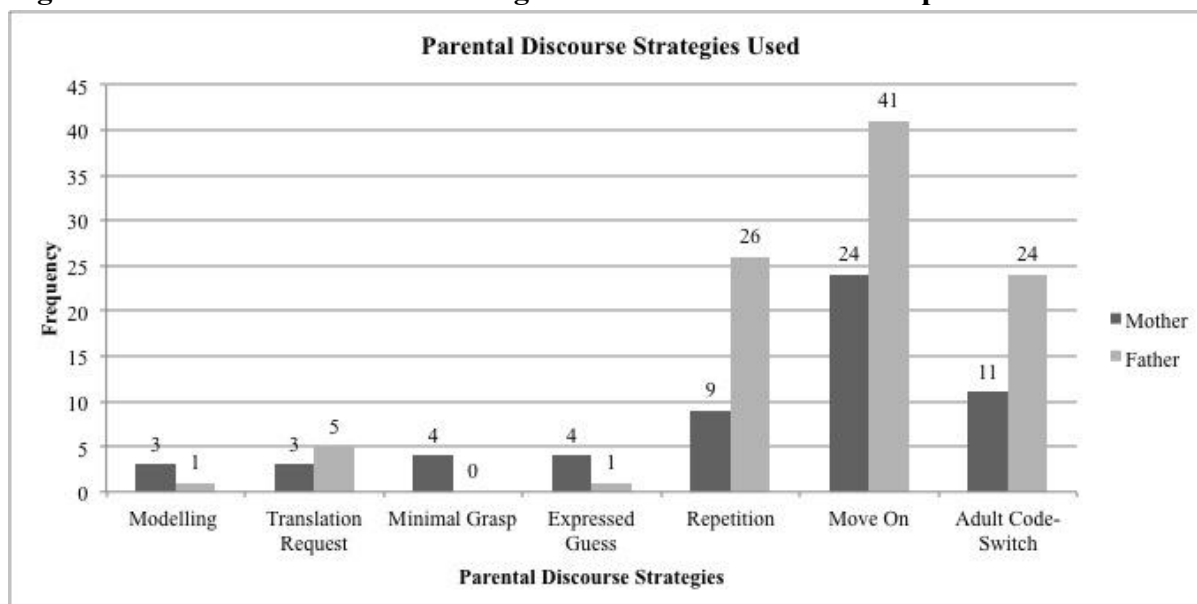
Moving on to Alberto's parents, his mother has a clear preference to Spanish over English while communicating with Alberto, as seen by the higher use of Spanish compared to English, with the only mixed utterances being Spanish dominant as well.

Alberto's father is a native English speaker who was learning Spanish as a second language. As mentioned earlier, Alberto's father was rated by Pérez-Bazán as having a linguistic competence of 0 in Spanish; however, during his interactions with Alberto, he spoke 773 utterances in Spanish compared to only 175 in English. It is unclear in the data and information available if this is representative of the father's typical linguistic habits with Alberto, or if it was done consciously by the father to elicit the use of Spanish by Alberto for the original study. Regardless, in terms of family language policy, it can be seen as a commitment to the minority language maintenance.

4.3.1.2 Parental Discourse Strategies Used

Figure 4.3 illustrates the 156 PDS found in the Alberto corpus as used by his mother and father. As mentioned above, when looking at Alberto's parents, it is interesting to note that his father is a Spanish L2 speaker, yet uses many PDS to encourage Alberto to speak in Spanish.

Figure 4.3. Parental Discourse Strategies Found in the Alberto Corpus



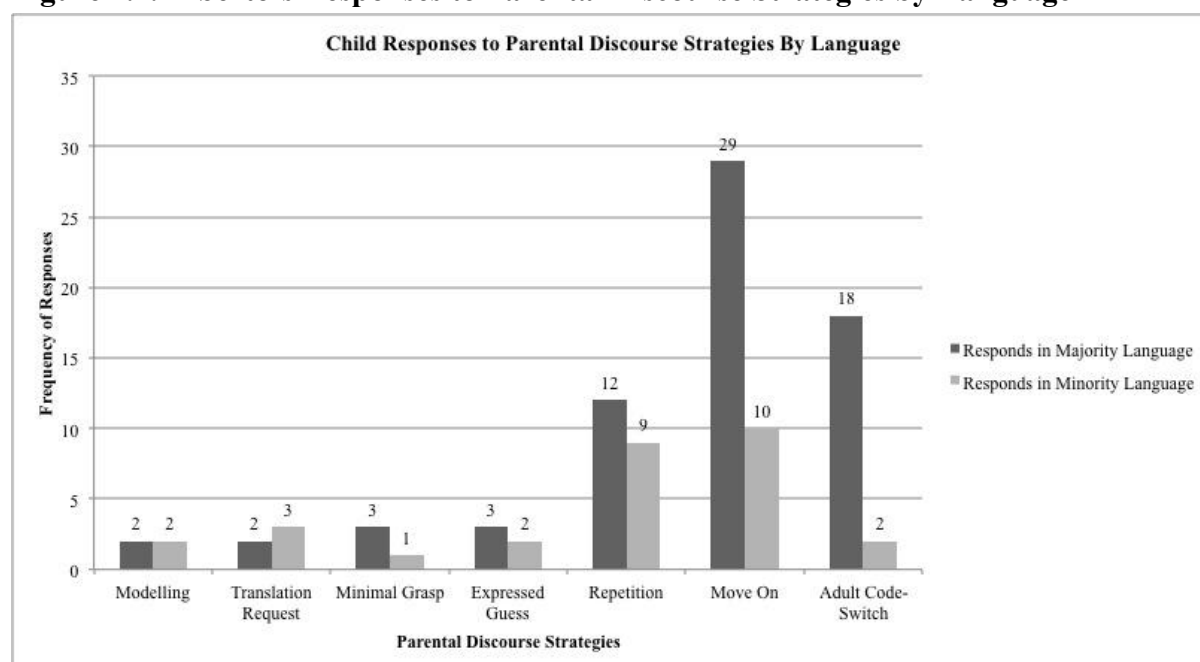
Both of Alberto's parents had a preference for the move on strategy, making up 41% of the Mother's strategy use, and 42% of the father's. The mother's use of more

‘monolingual’ strategies, along with her much higher use of Spanish, show her clear preference for Alberto to speak in Spanish and her status as a native Spanish speaker.

4.3.1.3 Child Responses to Parental Discourse Strategies

Alberto, who was the youngest child in the Perez corpus, responded 98 times to the 156 PDS used by his parents, displayed in figure 4.4 below. As mentioned earlier, this difference in numbers is generally due to the fact that there were situations in which his parents used multiple discourse strategies with either no response from Alberto or a response that was ambiguous or equally mixed. This will be seen again with other children in the corpus.

Figure 4.4. Alberto’s Responses to Parental Discourse Strategies by Language



Of the 430 responses coded, 48.60% were in English and 51.40% were in Spanish. His use of English, the majority language, was seen in responses to all seven types of PDS, even modelling and translation requests, two of the more explicit strategies promoting monolingual Spanish conversations. Based on the data shown, Alberto seems to be English dominant and responds more in English regardless of the PDS used by his parents, however, he responds more frequently in English to certain strategies as illustrated in the figure above.

To illustrate this further, the successfulness of the PDS used by Alberto's parents is shown below in table 4.5.

Table 4.5. Success Rate of Parental Discourse Strategies Used by Alberto's Parents

Parental Discourse Strategy	Times Used	All Responses (Difference)	Responses in Majority Language	Responses in Minority Language	Rate of Success
Modelling	4	4 (0)	2	2	50.00%
Translation Request	8	5 (3)	2	3	60.00%
Minimal Grasp	4	4 (0)	3	1	25.00%
Expressed Guess	5	5 (0)	3	2	40.00%
Repetition	35	21 (14)	12	9	42.86%
Move On	65	39 (26)	29	10	25.64%
Adult Code-Switch	35	20 (15)	18	2	10.00%

Translation request was the most successful PDS with Alberto, whereas adult code-switch was the least successful, only yielding a 10% response rate in the target language. This is consistent with the overall group results, as well as with the monolingual to bilingual continuum outlined by Lanza (1992) as discussed in the previous chapters.

Based on his higher, more complex (higher word MLU) use of English than Spanish, Alberto seems to be English dominant at this point in his language development. This can be further shown by the relatively low success rate of all PDS used by his parents. Although his mother and father speak to him more in Spanish than English during the recordings, it would be of interest to have more information on his language input outside of the recordings, as mentioned earlier, especially since the father is a Spanish L2 learner with a low level of Spanish language competences as reported by Pérez-Bazán.

4.3.2 Antonio

Antonio was recorded with his mother and father between the age 2;11 and 3;1. There are three transcripts in the Antonio corpus, totalling 1.00 hour and including 694 utterances (2,828 words) by the child, his mother (L1 Spanish with native-like English), and, to a lesser extent, his father (L1 English with a rating of 0 in Spanish by Pérez-Bazán), as shown in table 4.6.

Table 4.6. Total Utterances and Words in the Antonio Corpus

	Antonio	Mother	Father	Total
Utterances (Words)	258 (724)	410 (2,002)	26 (119)	694 (2,845)

4.2.2.1 Family Language Use

Overall, there was more Spanish spoken than English during the recordings, accounting for 82.28% of the total utterances. This was seen mainly in utterances spoken fully in Spanish (80.55%), as well as MSD utterances (1.73%). This use of Spanish can be seen by Antonio and his mother rather than his father, who only accounts for 3.74% of the total utterances by all family members, all being either English (3.60%) or ambiguous (0.14%). The number of utterances and word MLU in each language for Antonio and his parents are summarised in table 4.7 below.

Table 4.7. Utterances, Words, and Word MLU by Language in the Antonio Corpus

	Antonio		Mother		Father		Total Utterances (Words)
	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	
English	51 (156)	3.06	1 (3)	3.00	25 (118)	4.72	77 (227)
Spanish	169 (479)	2.83	390 (1,946)	5.00	0 (0)	0.00	559 (2,403)
Mixed: Equal	4 (10)	2.50	1 (4)	4.00	0 (0)	0.00	5 (14)
Mixed: English Dominant	6 (29)	4.83	1 (6)	6.00	0 (0)	0.00	7 (35)
Mixed: Spanish Dominant	8 (37)	4.63	4 (28)	7.00	0 (0)	0.00	12 (65)
Ambiguous	20 (20)	1.00	13 (13)	1.00	1 (1)	1.00	34 (34)
Total Utterances (Words)	258 (709)		410 (2,000)		26 (119)		694 (2,828)

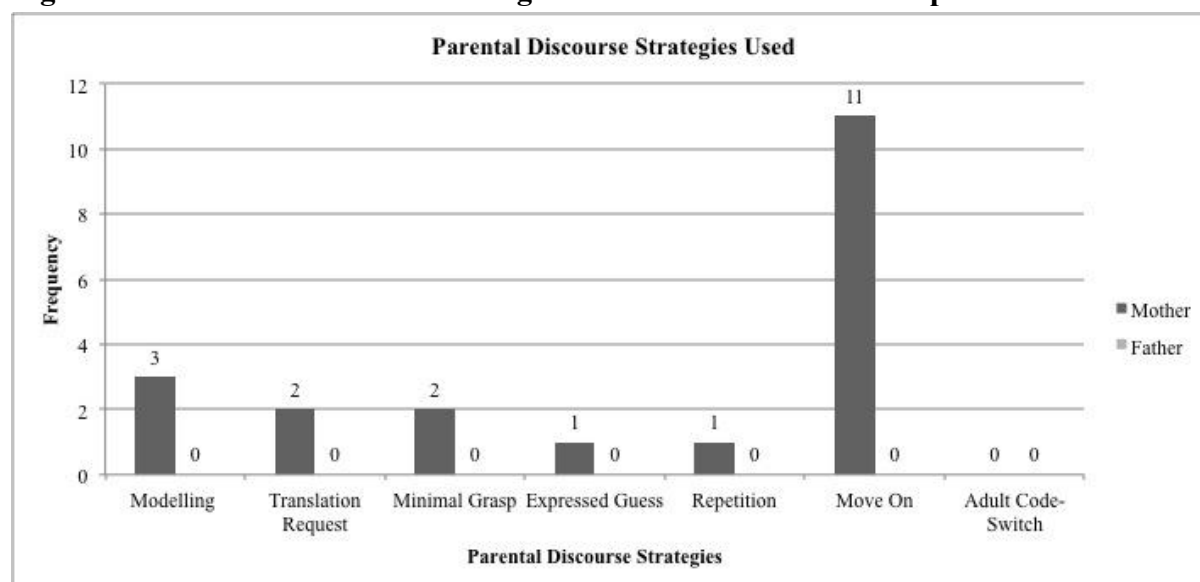
Antonio's mother has a clear preference for using Spanish over English, with 96.19% of her utterances being in Spanish (95.12% Spanish, 1.07% MSD), and only 0.49% of her utterances being spoken in English, divided equally by English or MED utterances. The remaining utterances were made up of 0.24% mixed: equal and 3.17% ambiguous.

Antonio's language use also shows a preference of Spanish over English, with 65.50% of his utterances being Spanish and 3.10% MSD. This could be due to the fact that the vast majority of the conversations recorded were with his mother, who, as mentioned, spoke to him mainly in Spanish during the recording. Of his 258 utterances, Antonio showed code-mixing only 6.97% of the time. Even when code-mixing, Antonio showed a slight preference to Spanish, with MSD accounting for 3.10% of all utterances, followed by MED (2.32%), and mixed: equal (1.55%).

4.3.2.2 Parental Discourse Strategies Used

In the Antonio corpus, a total of 20 PDS were used by his mother. The frequency of each PDS found is shown in figure 4.5 below.

Figure 4.5. Parental Discourse Strategies Found in the Antonio Corpus



The mother, who spoke mainly Spanish with Antonio, used all PDS save adult code-switch. Of the 20 PDS seen, 11 (55.00%) were the move on strategy, with the remaining strategies used falling on the more monolingual end of the continuum and the strategy of adult code-switch not being used at all. Through the use of the move on strategy, Antonio's mother shows that she understands English, yet does not use it in response to Antonio's English use, as seen by her avoidance of code-switching. The number of PDS used by his mother is lower than the number of Antonio's English utterances as many of the English utterances were either in conversation with his father, who spoke English with Antonio, or when Antonio used several English utterances within a turn at talk. This will be seen in the other corpora as well.

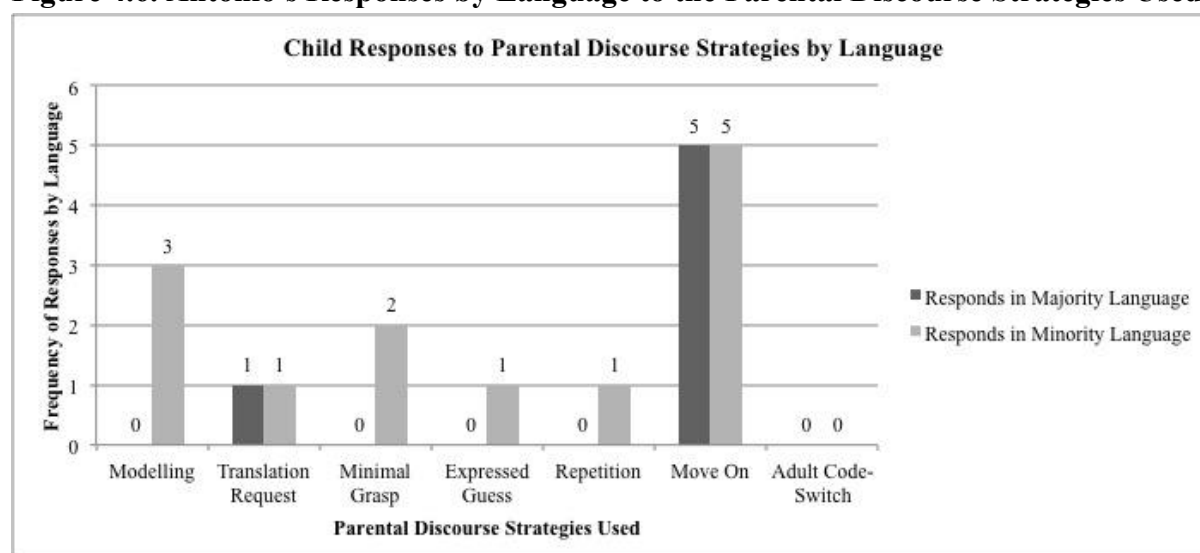
As the child also speaks mainly in Spanish with his mother throughout the corpus, she has little 'need' to use many PDS. However, her choice of PDS when she does need them shows an interesting mixture of strategies on both the monolingual and bilingual ends of the

continuum, although still showing a higher use of the move on strategy. This will be further discussed in chapter 5.

4.3.2.3 Antonio's Responses to Parental Discourse Strategies

As seen above, Antonio speaks mainly in Spanish during the recordings. When he does speak in English and his mother uses PDS, he responded in English 31.58% of the time, and Spanish the remaining 68.42%, as seen in figure 4.6 below. The tendency to respond in Spanish may show his understanding and cooperation of his mother's commitment to monolingual conversations in the minority language.

Figure 4.6. Antonio's Responses by Language to the Parental Discourse Strategies Used



Overall, Antonio responded in the minority language more often than the majority language. Two interesting results were his responses in Spanish to the move on strategy used by his mother, and his response in English, the non-target language, to a translation request. The success rate of his mother's use of all PDS is displayed below in table 4.8.

Table 4.8. Success Rate of Parental Discourse Strategies Used by Antonio's Mother

Parental Discourse Strategy	Times Used	All Responses (Difference)	Responses in Majority Language	Responses in Minority Language	Rate of Success
Modelling	3	3 (0)	0	3	100%
Translation Request	2	2 (0)	1	1	50.00%
Minimal Grasp	2	2 (0)	0	2	100%
Expressed Guess	1	1 (0)	0	1	100%
Repetition	1	1 (0)	0	1	100%
Move On	11	10 (1)	5	5	50.00%
Adult Code-Switch	0	0	0	0	N/A

Overall, Antonio seems to understand the language use expectations of his mother as he generally speaks in Spanish with her (hence the low number of PDS) and responds to her use of PDS more in Spanish than English. This is in line with the general 100% success rate of the PDS used by his mother, as well as the relatively higher success rate (50%) of adult code-switch compared to the other children. Based on the information available in the corpus, Antonio seems to be developing bilingual language abilities with little indication of a higher dominance in either of the two languages. There was a higher use of Spanish during the recordings by both him and his mother, but he did have a slightly higher word MLU when he used English or MED utterances compared to those of Spanish or MSD utterances. These differences in word MLU were quite low, making it difficult to assert dominance in one language or the other. Overall, based on the data, Antonio seems to be in a position to maintain in his heritage language.

4.3.3 Carla

Carla was between the age 2;0 and 3;3 at the time of recording and was recorded with her mother and father, both of whom were reported by Pérez-Bazán as having advanced to native abilities (a rating of 1) in both Spanish and English (no further contextual information was available). There was a total of 1,858 utterances (6,731 words) in the 21 transcripts of this corpus, shown in table 4.9, recorded over the course of 10.36 hours (the total recording time of the corpus is longer, as two of the 21 transcribed files did not have recording times listed). The Carla corpus was the largest of all the Pérez-Bazán corpora, with the longest recording time and most utterances.

Table 4.9. Total Utterances and Words in the Carla Corpus

	Carla	Mother	Father	Total
Utterances (Words)	798 (2,600)	330 (1,331)	730 (2,800)	1,858 (6,731)

4.3.3.1 Family Language Use

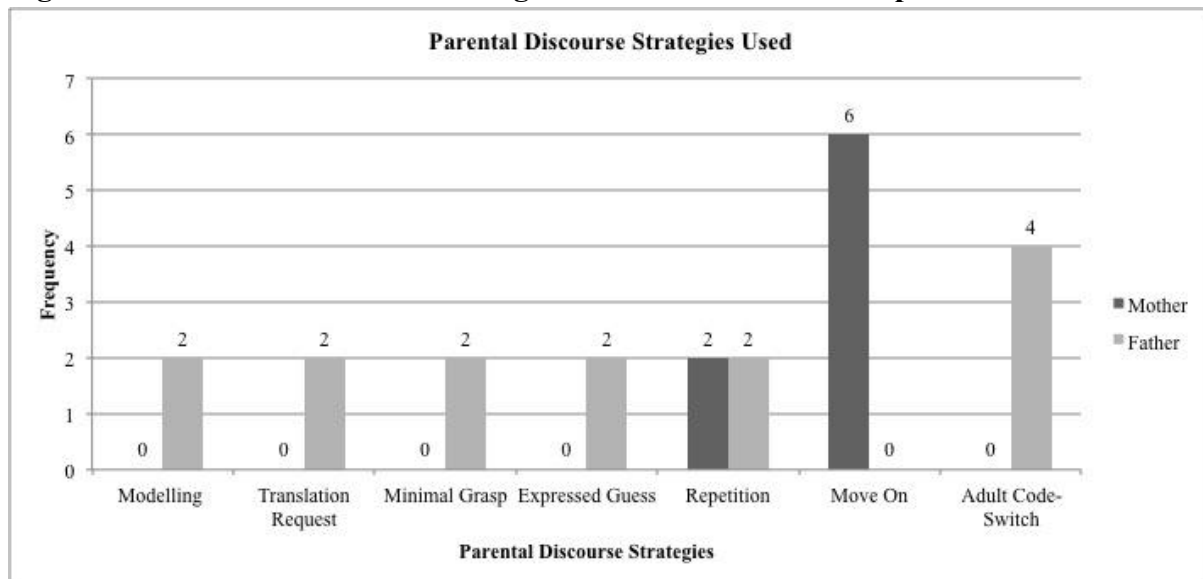
Carla, her mother, and her father all show a clear preference to Spanish as 82.62% of the total utterances were either Spanish (79.55%) or MSD (3.07%), as outlined in table 4.10. Even when mixing the languages, overall there were only 14 MED utterances compared to 57 MSD. In addition, the three participants also generally show a higher word MLU in both Spanish and MSD. Carla, for example, has a word MLU of 3.59 in Spanish compared to only 1.42 in English, which is comparable to her mother's word MLU of 4.28 in Spanish and 2.53 in English.

Table 4.10. Utterances, Words, and Word MLU by Language in the Carla Corpus

	Clara		Mother		Father		Total Utterances (Words)
	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	
English	72 (102)	1.42	19 (48)	2.53	64 (213)	3.33	155 (363)
Spanish	618 (2,216)	3.59	278 (1,191)	4.28	582 (2,287)	3.93	1,478 (5,694)
Mixed: Equal	11 (34)	3.09	4 (10)	2.50	12 (42)	3.50	27 (86)
Mixed: English Dominant	6 (31)	5.17	2 (11)	5.50	6 (20)	3.33	14 (62)
Mixed: Spanish Dominant	19 (115)	6.05	8 (43)	5.38	30 (182)	6.07	57 (340)
Ambiguous	72 (102)	1.42	19 (28)	1.47	36 (56)	1.56	127 (186)
Total Utterances (Words)	798 (2,600)		330 (1,331)		730 (2,800)		1,858 (6,731)

4.3.3.2 Parental Discourse Strategies Used

As noted above, the overall language choice of the three family members was Spanish. Because Carla generally spoke more in Spanish or MSD utterances, there were limited instances in which her parents ‘needed’ to use PDS. Even given her lower use of English or mixed utterances, there was a total of 22 found in the corpus, presented in figure 4.7.

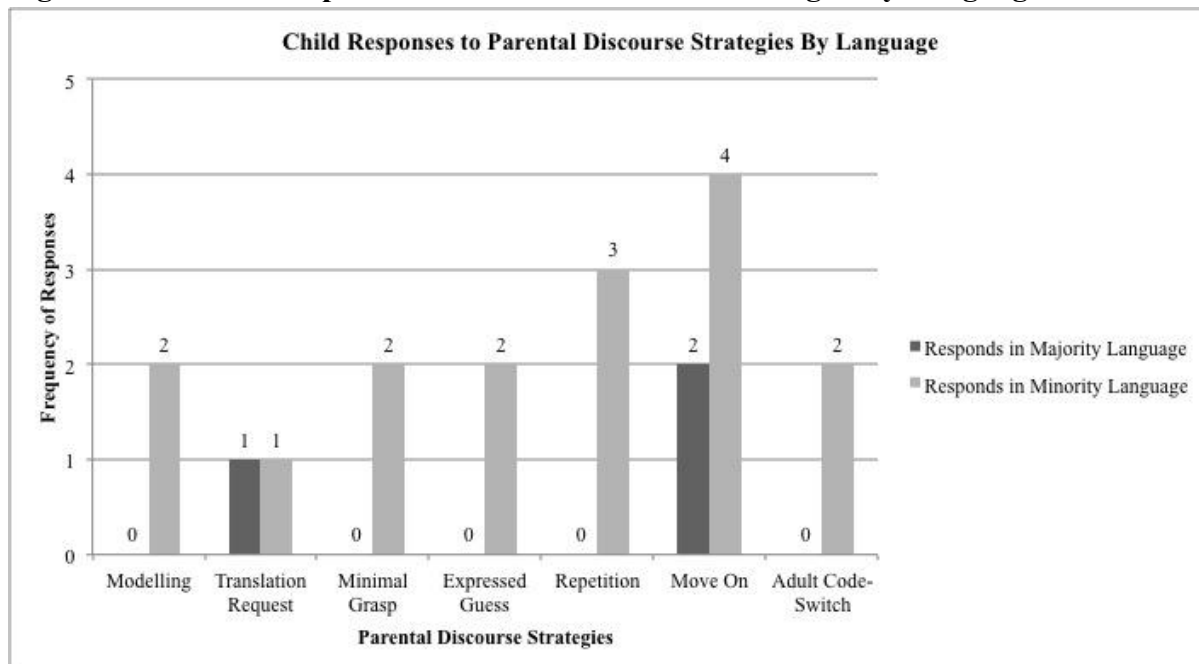
Figure 4.7. Parental Discourse Strategies Found in the Carla Corpus

Carla's mother only used the move on and repetition strategies, while her father used every strategy at least once, save move on, which was not used by him at all. He did, however, code-switch with Carla, to which Carla switched codes in response as discussed below.

4.3.3.3 Child Responses to Parental Discourse Strategies

In the majority of the cases, Carla responded to her parents' use of PDS in Spanish (82.12%), as shown in figure 4.8.

Figure 4.8. Carla’s Responses to Parental Discourse Strategies by Language



Carla’s three responses in English to the PDS used by her parents were to the move on and, interestingly, translation request strategies. The use of PDS by the parents although the child seems to be Spanish dominant may show their commitment to the maintenance of the heritage language and the child’s Spanish language development. The success rate of the strategies used by Carla’s parents is shown in table 4.11.

Table 4.11. Success Rate of Parental Discourse Strategies Used by Carla's Parents

Parental Discourse Strategy	Times Used	All Responses (Difference)	Responses in Majority Language	Responses in Minority Language	Rate of Success
Modelling	2	2 (0)	0	2	100%
Translation Request	2	2 (0)	1	1	50.00%
Minimal Grasp	2	2 (0)	0	2	100%
Expressed Guess	2	2 (0)	0	2	100%
Repetition	4	3 (1)	0	3	100%
Move On	6	6 (0)	2	4	66.67%
Adult Code-Switch	4	2 (2)	0	2	100%

Carla's clear understanding of her parent's preferred Spanish-monolingual environment is shown by not only her higher use of Spanish than English, but also the success rate of all PDS used. The surprising success rate of two of the more bilingual strategies, move on and adult code-switch, is worth mentioning as these two strategies generally allow the child to continue in the non-target language rather than switch back to the target language.

Carla seems to be Spanish dominant, as seen by her higher, more complex use of Spanish than English, together with her higher response rate to PDS in the target language. When code-mixing, she uses more MSD utterances, again with higher word MLU than compared to her MED utterances. These language use and complexity patterns are in line with her parent's language choices as well.

4.3.4 John

John was recorded between the ages 2;0 and 3;3 and was spoken to in English by his mother (L1 English with a reported Spanish linguistic competence of 0), and Spanish by his

father (L1 Spanish with native-like abilities in English). There were six transcripts totalling 2.32 hours, comprised of 1,645 utterances (6,065 words), as shown in table 4.12.

Table 4.12. Total Utterances and Words in the John Corpus

	John	Mother	Father	Total
Utterances (Words)	775 (2,271)	231 (980)	639 (2,814)	1,645 (6,065)

4.3.4.1 Family Language Use

In this corpus, the general pattern of the family's language use is that John's mother spoke to him in English and his father spoke to him in Spanish, although they both used both languages, as seen in table 4.13.

Table 4.13. Utterances, Words, and Word MLU by Language in the John Corpus

	John		Mother		Father		Total Utterances (Words)
	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	
English	492 (1,523)	3.10	145 (664)	4.58	29 (120)	4.14	666 (2,307)
Spanish	231 (511)	2.21	46 (113)	2.46	575 (2,632)	4.56	852 (3,256)
Mixed: Equal	18 (49)	2.72	6 (15)	2.50	0 (0)	0.00	24 (64)
Mixed: English Dominant	20 (149)	7.45	20 (149)	7.45	2 (8)	4.00	42 (306)
Mixed: Spanish Dominant	2 (10)	5.00	2 (10)	5.00	2 (8)	4.00	6 (28)
Ambiguous	12 (29)	2.42	12 (29)	2.42	31 (46)	1.48	55 (104)
Total Utterances (Words)	775 (2,271)		231 (980)		639 (2,814)		1,645 (6,065)

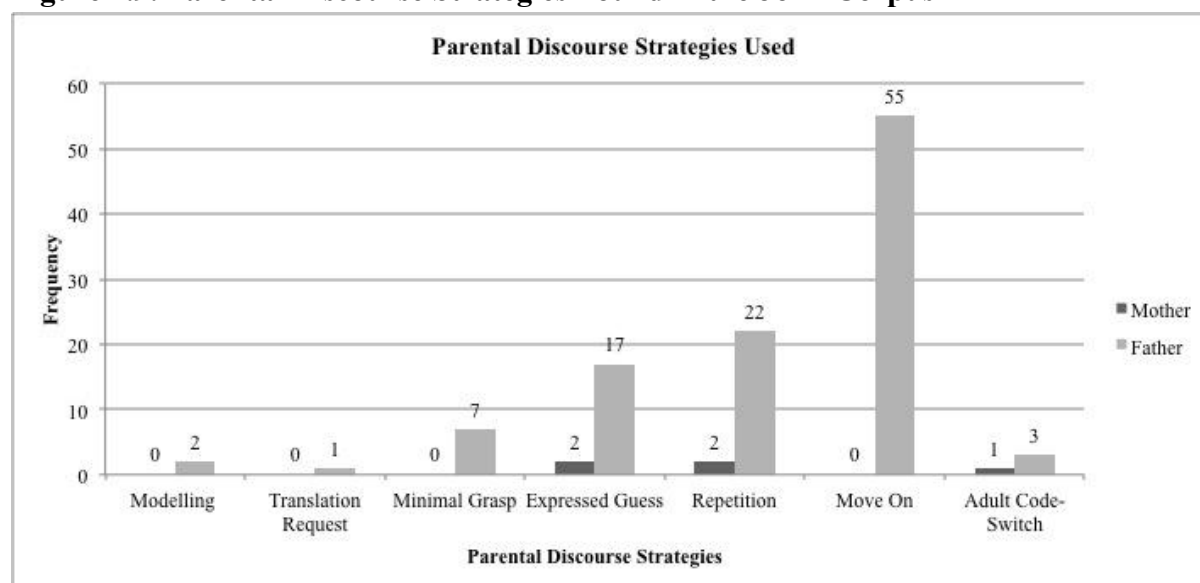
John also used both English and Spanish, as well as a mixture of both. The amount of utterances he produced in Spanish (29.81%) and MSD (0.26%) were lower than the

utterances in English (63.48%) and MED (2.58%), and judging by word MLU, John is English dominant at the time of recording. When looking at the higher use of Spanish by his father in conversations with John, it gives reason to the high amount of PDS used by his father, as discussed below.

4.3.4.2 Parental Discourse Strategies Used

As seen above, John's father was the parent that provided the most Spanish input and conversation with John during the recordings. As such, the vast majority (95.54%) of the 112 PDS seen in this subcorpus were used by him. During the times that John's mother did speak Spanish with him, she used only five PDS, as displayed in figure 4.9.

Figure 4.9. Parental Discourse Strategies Found in the John Corpus



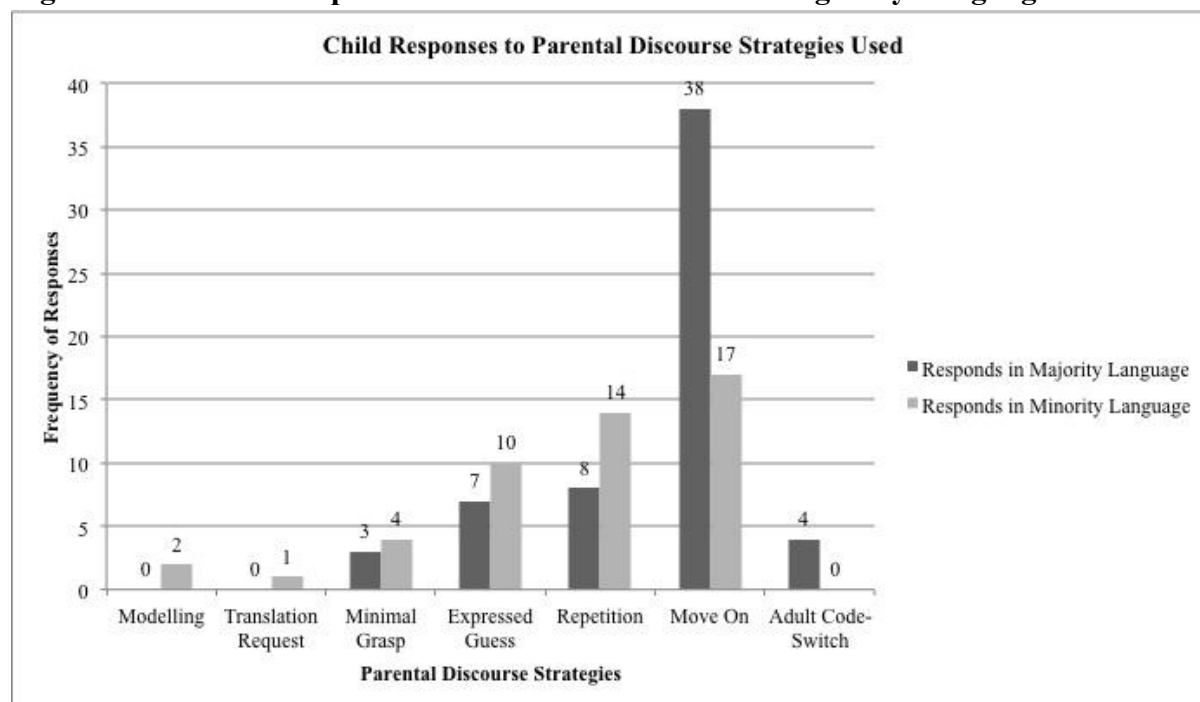
John's father used all the seven strategies under investigation at least once, but tended to use the move on strategy most, followed by repetition and expressed guess. This high use of the move on strategy is consistent with the findings in the other corpora so far.

4.3.4.3 Child Responses to Parental Discourse Strategies

As seen above, John's father used the move on strategy the most, to which John responded in English more often than Spanish, as shown below in figure 4.10. Of the 108

responses seen, 55.56% were in English. This is consistent with the literature on PDS as Lanza states that the move on strategy is unlikely to cause the child to use the minority language (as mentioned in chapter 2).

Figure 4.10. John's Responses to Parental Discourse Strategies by Language



The only PDS to which John replied in Spanish every time they were used were translation request and modelling. Similarly, every time his parents code-switched to English, John also responded in the non-target language, English. This is in line with the general findings that the strategies on the monolingual end of the continuum seem to be successful in eliciting minority language responses more often than majority language responses, whereas the strategies that fall on the bilingual side of the continuum, move on and adult code-switch, consistently elicit majority language responses more often than minority language responses. Table 4.14 shows this successfulness, results that further validate the original idea put forth by Lanza (1992, 1997).

Table 4.14. Success Rate of Parental Discourse Strategies Used by John's Parents

Parental Discourse Strategy	Times Used	All Responses (Difference)	Responses in Majority Language	Responses in Minority Language	Rate of Success
Modelling	2	2 (0)	0	2	100%
Translation Request	1	1 (0)	0	1	100%
Minimal Grasp	7	7 (0)	3	4	57.14%
Expressed Guess	19	17 (2)	7	10	58.82%
Repetition	24	22 (2)	8	14	63.64%
Move On	55	55 (0)	38	17	30.91%
Adult Code-Switch	4	4 (0)	4	0	0.00%

Similar to the results seen with the other children thus far, the use of adult code-switch solely resulted in responses in the non-target language from the child, whereas the few instances of modelling and translation request resulted in responses in the target languages. An interesting finding is the success rate of the parents' use of the move on strategy. John seems to be English dominant at this point in his language development as he used over twice as many English utterances than Spanish utterances, and a much higher number of MED utterances than MSD ones. The word MLU was also higher for English and MED utterances than Spanish or MSD utterances.

4.3.5 Sheila

Sheila was aged 2;2 to 2;8 at the time of recording, and was recorded with her mother, a native Spanish speaker. There was no recorded data with the child and her father, a native English speaker. The two transcripts in this corpus include 1,225 utterances (3,799 words), as shown in table 4.15, and just over 1.30 hours of recording.

Table 4.15. Total Utterances and Words in the Sheila Corpus

	Sheila	Mother	Total
Utterances (Words)	489 (1,077)	736 (2,722)	1,225 (3,799)

4.3.5.1 Family Language Use

Although Sheila's mother spoke mainly in Spanish (88.45%) with little intrasentential mixing (2.17%), Sheila spoke more in English (44.38%) than Spanish (37.21%). As shown in table 4.16, Sheila showed a preference to English over Spanish also in code-mixed utterances, by using MED utterances 16 times, compared to MSD utterances only four times.

Table 4.16. Utterances, Words, and Word MLU by Language in the Sheila Corpus

	Sheila		Mother		Total Utterances (Words)
	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	
English	217 (571)	2.63	39 (139)	3.56	256 (710)
Spanish	182 (318)	1.75	651 (2,458)	3.78	833 (2,776)
Mixed: Equal	15 (41)	2.73	2 (4)	2.00	17 (45)
Mixed: English Dominant	16 (67)	4.19	5 (23)	4.60	21 (90)
Mixed: Spanish Dominant	4 (14)	3.50	9 (60)	6.67	13 (74)
Ambiguous	55 (66)	1.20	30 (38)	1.27	85 (104)
Total Utterances (Words)	489 (1,077)		736 (2,722)		1,225 (3,799)

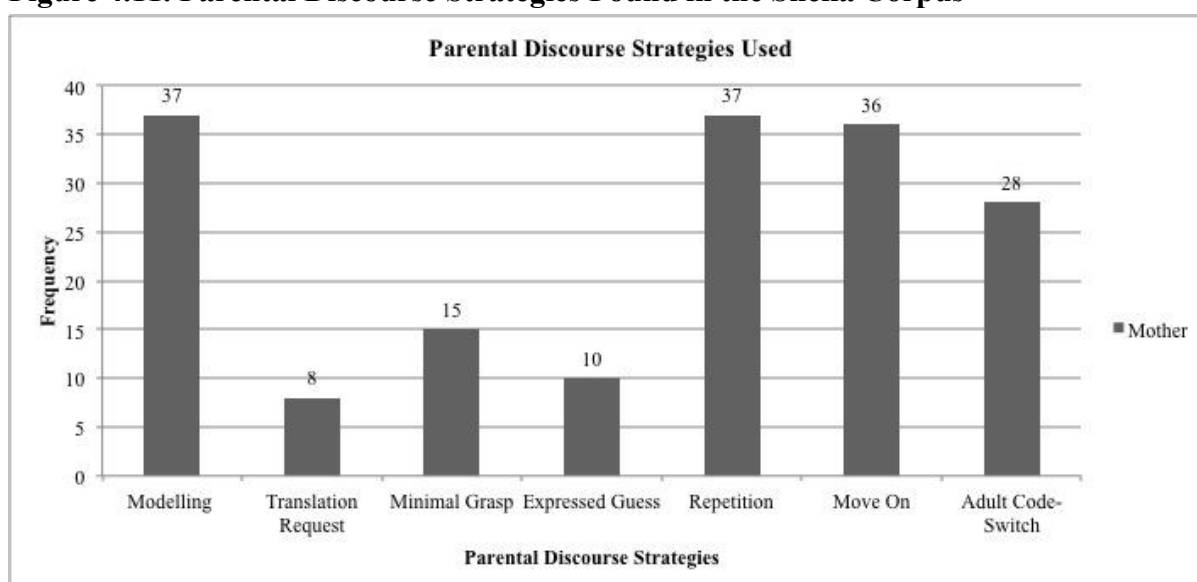
In regards to word MLU, Sheila shows slightly more dominance in English, with a word MLU in English and MED utterances being 2.63 and 4.19, compared to only 1.75 in Spanish and 3.50 in MSD. In the relatively low number of English utterances used, Sheila's

mother has a similar word MLU (3.56) to that of her Spanish utterances (3.78), showing similar complexity of input in both languages.

4.3.5.2 Parental Discourse Strategies Used

Although the recording time of this corpus was quite short compared to the others in this study, there were 171 PDS found, the highest of all corpora. As presented in figure 4.11, all 7 PDS under investigation were used by Sheila's mother. Repetition and modelling were used the most, and translation request was the least used strategy.

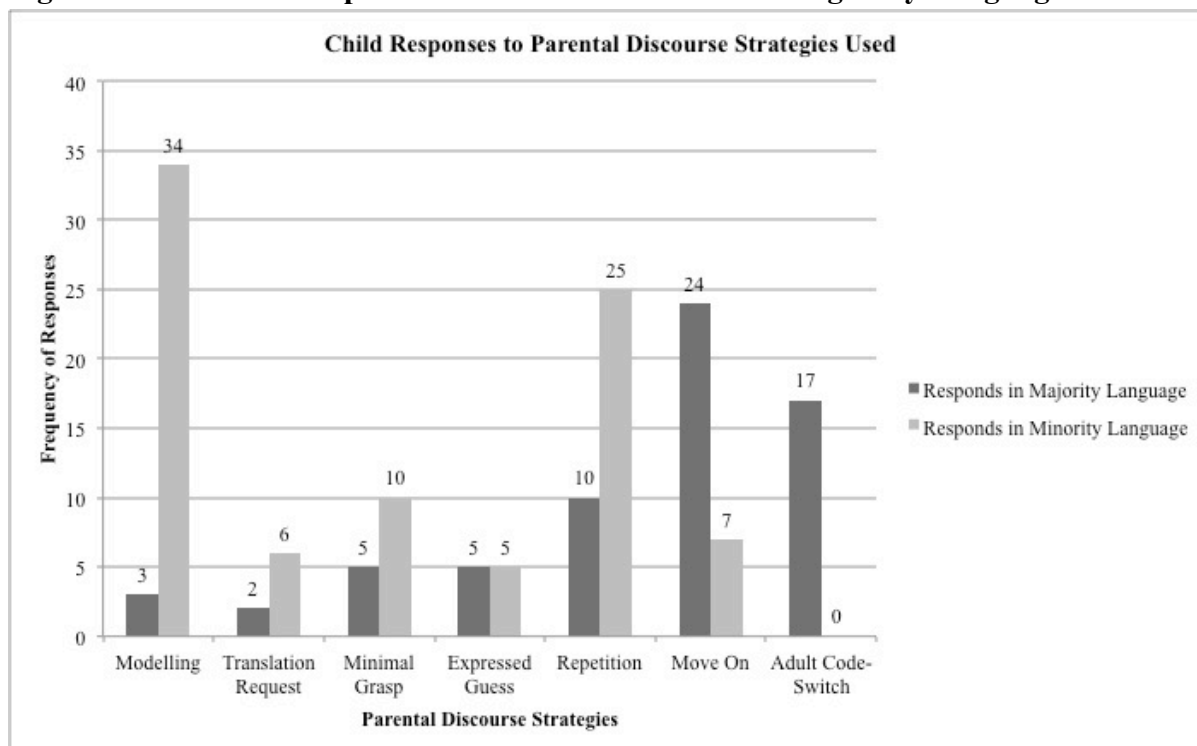
Figure 4.11. Parental Discourse Strategies Found in the Sheila Corpus



The use of Sheila's mother's high use of the modelling strategy shows her desire to not only create a monolingual Spanish context with her daughter, but also a desire to teach correct use of the language and enrich her vocabulary.

4.3.5.3 Child Responses to Parental Discourse Strategies

In response to the 171 PDS used by her mother, 153 responses by Sheila were coded. Of the 153, 66 were in English (43.14%) and 87 in Spanish (56.86%). The distribution of these responses to each PDS are shown in figure 4.12.

Figure 4.12. Sheila's Responses to Parental Discourse Strategies by Language

Sheila had responses to each PDS in both languages, except for when her mother code-switched. In the instances in which her mother switched from Spanish to English, Sheila responded only in English. She did show a very cooperative response pattern when her mother used monolingual strategies, notably modelling, as displayed in table 4.17.

Table 4.17. Success Rate of Parental Discourse Strategies Used by Sheila's Parents

Parental Discourse Strategy	Times Used	All Responses (Difference)	Responses in Majority Language	Responses in Minority Language	Rate of Success
Modelling	37	37 (0)	3	34	91.89%
Translation Request	8	8 (0)	2	6	75.00%
Minimal Grasp	15	15 (0)	5	10	66.67%
Expressed Guess	10	10 (0)	5	5	50.00%
Repetition	37	35 (2)	10	25	71.43%
Move On	36	34 (2)	24	10	29.41%
Adult Code-Switch	28	17 (11)	17	0	0.00%

Again, the use of the adult code-switch garnered only responses in the non-target language, and move on had a low success rate. Additionally, the great use of modelling had a very high success rate with Sheila. As mentioned, Sheila's mother's high use of the modelling strategy is an indication of her wish to actively teach and encourage the use of Spanish. This will be further exemplified in the next chapter in discourse samples between Sheila and her mother. Although the PDS used by her mother did have generally high success rates with Sheila, when looking at Sheila's frequency of use and word MLU in both languages, she shows more dominance in English than Spanish.

4.3.6 Tina

Tina was recorded between the age 2;2 and 2;11. There were 588 (2,039 words) utterances in four transcripts, shown in table 4.18, which include 1.35 hours of recorded discourse. Tina was recorded with her mother, a native Spanish speaker. Tina's father was

not present at the time of any of the recordings but was reported to have ‘advanced to native’ (a 1 as rated by Pérez-Bazán) linguistic competence in both Spanish and English.

Table 4.18. Total Utterances and Words in the Tina Corpus

	Tina	Mother	Total
Utterances (Words)	359 (976)	229 (1,063)	588 (2,039)

4.3.6.1 Family Language Use

Although there were only 588 utterances spoken by Tina and her mother, 81.97% were Spanish or MSD. Although her mother did code-mix, none of her mixed utterances were English dominant, as indicated in table 4.19.

Table 4.19. Utterances, Words, and Word MLU by Language in the Tina Corpus

	Tina		Mother		Total Utterances (Words)
	Utterances (Words)	Word MLU	Utterances (Words)	Word MLU	
English	53 (103)	1.94	19 (24)	1.26	72 (127)
Spanish	279 (802)	2.88	189 (949)	5.02	468 (1,751)
Mixed: Equal	8 (26)	3.25	4 (8)	2.00	12 (34)
Mixed: English Dominant	2 (7)	3.50	0 (0)	0.00	2 (7)
Mixed: Spanish Dominant	4 (18)	4.50	10 (71)	7.10	14 (89)
Ambiguous	13 (20)	1.54	7 (11)	1.57	20 (31)
Total Utterances (Words)	359 (976)		229 (1,063)		588 (2,039)

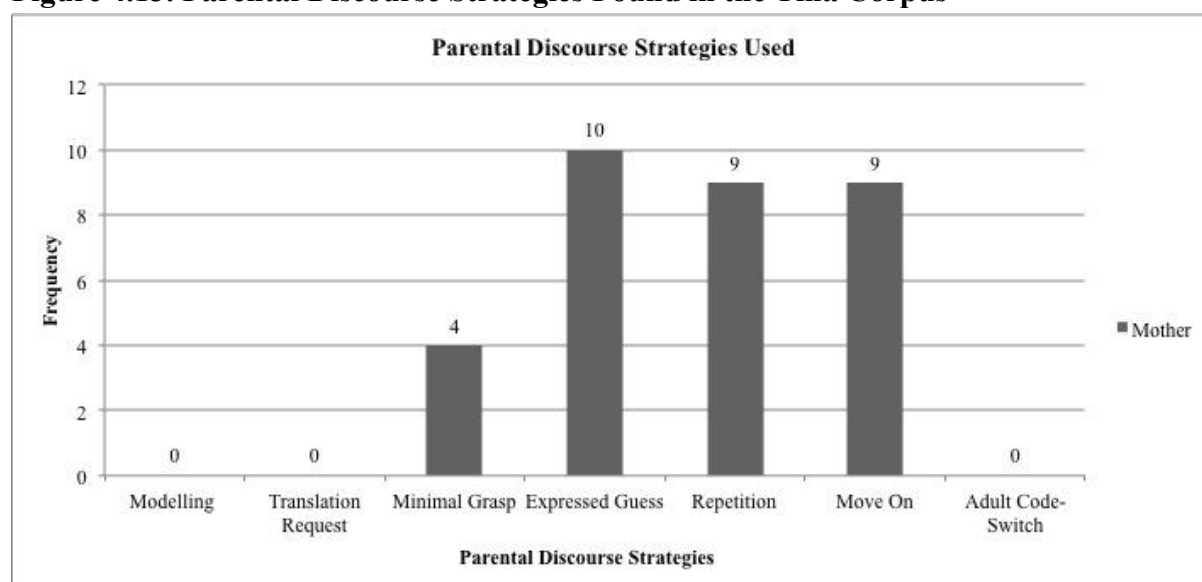
Overall, the word MLU was higher for Spanish and MSD than English and MED, with both Tina and her mother showing a higher dominance and more complex use of

Spanish over English. Based on this, Tina seems to be one of the few children in the corpus that is Spanish dominant as indicated by her very high number of Spanish utterances and a higher word MLU in Spanish than in English.

4.3.6.2 Parental Discourse Strategies Used

As Tina spoke mostly in Spanish or MSD utterances, her mother only used 32 PDS, presented in figure 4.13. Of those, nine were the move on strategy. The other PDS found were minimal grasp, expressed guess, and repetition, all on the monolingual end of the continuum.

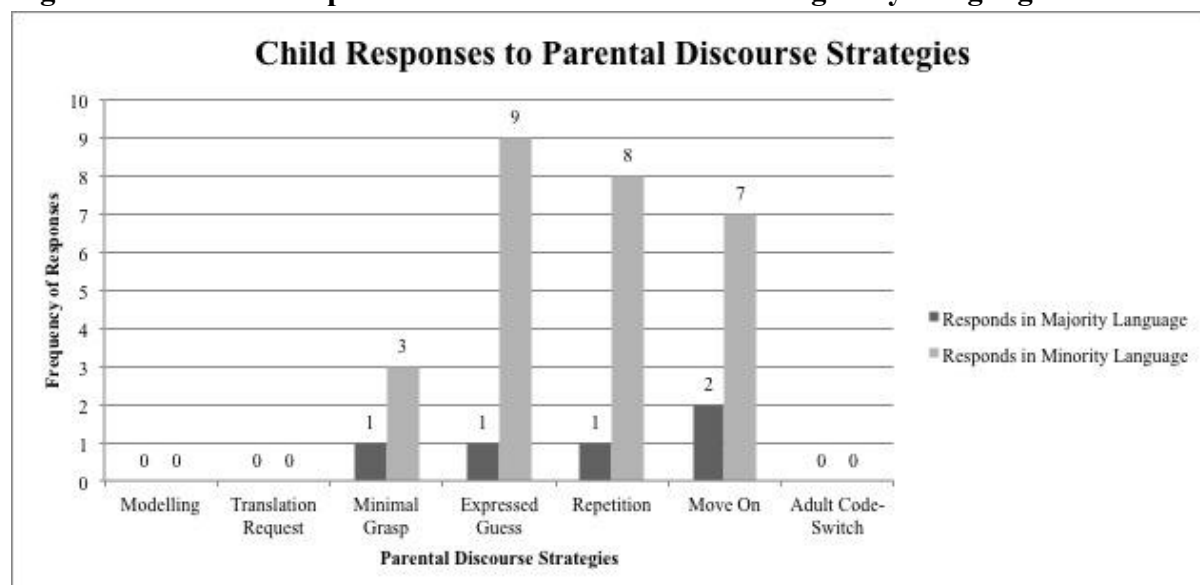
Figure 4.13. Parental Discourse Strategies Found in the Tina Corpus



As can be seen from Tina's general use of Spanish over English, her mother had relatively little "need" to use PDS. The few times she did, they tended to be ones that showed a desire for monolingual Spanish conversation.

4.3.6.3 Child Responses to Parental Discourse Strategies

To the 32 PDS used by her mother, Tina responded 27 times in Spanish (84.38%), and only five times in English (15.63%), with the distribution of these responses shown in figure 4.14.

Figure 4.14. Tina's Responses to Parental Discourse Strategies by Language

Even though Tina responded in English at least once to each strategy, she responded more in Spanish overall. Interestingly, Tina responded to her mother's use of the move on strategy in Spanish more than English. This is an intriguing find that will be discussed further in chapter 5. The successfulness of this and other PDS is shown in table 4.20.

Table 4.20. Success Rate of Parental Discourse Strategies Used by Tina's Parents

Parental Discourse Strategy	Times Used	All Responses (Difference)	Responses in Majority Language	Responses in Minority Language	Rate of Success
Modelling	0	0	0	0	N/A
Translation Request	0	0	0	0	N/A
Minimal Grasp	4	4 (0)	1	3	75.00%
Expressed Guess	10	10 (0)	1	9	90.00%
Repetition	9	9 (0)	1	8	88.88%
Move On	9	9 (0)	2	7	77.77%
Adult Code-Switch	0	0	0	0	N/A

Similar to John, Tina's general responses in the target language to all of the PDS used by her mother, including move on, a strategy which does not usually encourage the use of the minority language. This interesting finding, together with her high use of Spanish throughout the transcripts with a much higher word MLU in Spanish and MSD utterances than English or MED utterances, position her to have more dominant Spanish language abilities at this point in her language development.

4.4 Summary of Results

After looking at the overall findings from the six corpora as well as the individual results from each family, many noteworthy pieces of data have been found.

In regards to language use at the group level, there were more Spanish utterances (and words) used by both the parents and the children, although the amount used by the parents was much higher than that of the children. Compared to monolingual utterances, there was a lower number of mixed (equal, MED, or MSD) utterances; however, for all parents and children, the word MLU for mixed utterances was consistently higher than that of utterances exclusively in English or Spanish. More on this will be discussed in the next chapter.

Based on language use and word MLU, the children with a tendency for higher complexity and frequency of use in Spanish were Carla and Tina, whereas Alberto, John, and Sheila showed higher complexity and frequency of use in English throughout the corpora. Compared to the other five children with generally clear language preferences during the recordings, although Antonio did have a much higher use of Spanish than English utterances, the word MLU in English was slightly higher.

When looking at the use of the PDS, all five PDS listed by Lanza (1992), as well as the two additional ones added for the purposes of this study, modelling and translation request (Döpke, 1992; Slavkov, 2014), were found to have been used by the parents in the corpus. The move on strategy was seen in all corpora and had the highest rate of use in the

overall results of all parents, with translation request being used the least. The use of the strategies varied by each parent, but the individual results were consistent with those of the group in that the move on strategy was generally used at a higher rate than the other PDS.

At the group level, it can be seen that some PDS were more successful than others in encouraging the children to use the minority language. The most successful were modelling and translation request, while the move on and adult code-switch strategies very rarely garnered a response in the minority language from the children. This is consistent with Lanza's monolingual to bilingual continuum of the strategies, especially with regards to move on and adult code-switch yielding more responses in the majority language than in the minority language. There was some variation in the individual subcorpora, but overall the individual data were consistent with the group patterns.

Using the results presented in the above sections, discussion of the language use in each family, PDS found, and the children's responses will be elaborated on in the next chapter. Additionally, the impacts of this study and how it may contribute to the various fields it is related to will be addressed.

Chapter 5: Discussion

5.1 Overview

This chapter discusses the results outlined in chapter 4 and relates many findings back to the literature overviewed in chapter 2. The findings for each research question will be discussed at the group level with individual variations or data of interest being noted and further discussed using samples of discourse from the corpus. Qualitative observations that were made during the analysis of the corpora and that supplement the quantitative data are also noted throughout this chapter.

5.2 Family Language Use and Complexity

In order to address the first research question, *“What was the frequency and complexity of use of the majority and minority languages by the parents and children in the corpora?”* this study looked at all utterances by the parents and children in the Perez corpus and calculated the frequency and complexity (word MLU) of utterances in English, Spanish, mixed: equal, MED, MSD, and ambiguous. First a brief discussion on the calculation of the two elements under investigation is given, then the results are discussed in the subsequent sections first by the frequency and complexity of language use by the parents, then the frequency and complexity of language use by the children. Discussion of these results as they apply to Family Language Policy is then offered.

5.2.1 Language Use and Complexity

First the language of utterance for all utterances by all parents and children was coded and then calculated based on the frequency of use. Although the language use was calculated in the Pérez-Bazán study, it was looked at in the number of conversational turns at talk, whereas this study looked at the total number of utterances. This was done to get a deeper understanding of the language use by the parents and the children rather than just the number

of utterances used. Moreover, calculating the frequency and complexity of the language use by utterance allowed for a better understanding of the input the children received from each parent and their actual language abilities (rather than relying on the binary scale provided by Pérez-Bazán). The data available from the Pérez-Bazán study about the parent's language abilities was reported on a binary scale: 0 for 'none to advanced', and 1 from 'advanced to native' based on ACTFL Oral Proficiency Guidelines. The use of this binary scale, while suitable for the purposes of Pérez-Bazán, does not provide sufficient information when looking at potential family language policies and the PDS used to maintain them. For example, if a parent is rated as '0' in Spanish, we do not know if they have absolutely no knowledge of Spanish meaning dyadic (parent-child or parent-parent) and triadic (parent-child-parent) would all have to be in English, or if they have advanced abilities in Spanish, allowing dyadic and triadic conversations in Spanish.

Second, in order to gauge the complexity of use in each language, the word MLU in each language category was also looked at for all participants. Again, word MLU was calculated for all utterances by all participants, rather than only a sample of utterances as was done by Pérez-Bazán. Word MLU of all utterances of the parents was of interest as it gives an idea of the complexity of input their child receives in both languages. The word MLU of all child utterances was of interest as it is a way of measuring a child's bilingual language development. As discussed in chapter 3, acknowledging that there is no perfect measure for comparison, the question of whether word MLU comparisons are appropriate to gauge a child's bilingual language development depends largely on the language pairing and has been seen as appropriate for comparisons for English and Spanish (De Houwer, 2009; Silva-Corvalán & Sánchez-Walker, 2007).

5.2.1.1 Frequency of Language Use by Parents

The most frequent type of utterances used by the parents in the corpus were in Spanish (80.42%), which can be explained by the fact the parents that communicated most with the children during the recordings were the native Spanish speakers as the native-English parents were either not present at the time of recording, or spoke very little. The exception to this was Alberto's father. He is a native-English speaker rated by Pérez-Bazán as having a linguistic competence of 0 in Spanish, however, during his interactions with Alberto, he spoke mainly in Spanish.

The use of English utterances by the parents was much lower than that of Spanish, accounting for only 12.13% of the total utterances by the parents. Many of these English utterances were in response to a child's use of English, or when giving commands, as seen in the Alberto corpus (discussed later in this chapter). Although the Spanish-speaking parents could have spoken to their children in English (recall that all parents in the corpus had a rated English competency of 1 by Pérez-Bazán), this fact perhaps indicates a high level of commitment to Spanish language maintenance by these parents.

In regards to intrasentential code mixing by the parents, there was relatively little mixing, with all mixed utterances (equal, MED, and MSD) accounting for only 2.97% of all parent utterances. When the parents did code-mix, there was a higher rate of Spanish-dominant mixes (1.48%) than English-dominant (0.77%) or equal mixes (0.71%), which is consistent with the higher use of Spanish by the parents overall. This, again, perhaps indicates a high level of commitment to Spanish language maintenance on the part of the parents.

5.2.1.2 Frequency of Language Use by Children

When looking at the language mixing of the children, there was also a low percentage of intrasentential code mixing, with only 1.77% of the total utterances produced by the six

children being mixed (equal, MED, and MSD). In contrast to the overall results for the parents, however, there was a lower rate of Spanish-dominant mixes (1.16%) by the children compared to English-dominant (2.05%) or equal (1.79%) mixes. This higher percentage can be attributed to the tendency to use more English, the majority language, by three of the children: Alberto, John, and Sheila. On the individual level, these three children had a higher frequency of use of English utterances compared to Spanish utterances, as well as a higher frequency of MED utterances compared to MSD utterances. The other children, Antonio, Carla, and Tina, displayed the opposite language use pattern: they had a higher use of Spanish utterances than English utterances, and a higher use of MSD utterances than MED utterances. It is relevant to note that of the six children, Carla and Tina were the only two with both parents being rated as having native or native-like Spanish language competencies, which likely plays a role in their higher use of the language compared to the other children. Additionally, Clara's parents both had a much higher frequency of use and word MLU of Spanish and MSD utterances than English and MED utterances, showing a Spanish-rich environment that may include Spanish dyadic conversations between the parents (it is impossible to state the same for Tina as there is no data available on her father's linguistic input). This is discussed further later in this chapter.

Although it is difficult to make any clear claims about the children's total linguistic input as not all parents were present during the recordings, the results show that, during the recordings, the children received a great deal of Spanish input with little English or language-mixing. The high amount of Spanish by one or both parents, however, may not be enough to maintain the use of Spanish in the home, as seen by the higher use of English by some of the children.

5.2.1.3 Complexity of Language Use by Parents

As mentioned earlier, the parents most present during the recordings or that communicated most with the children were the native Spanish speakers who all had a reported English language competency of 1 ('advanced to native') as rated by Pérez-Bazán. As such, they had similar word MLU in both English and Spanish, save Tina's mother, whose word MLU in English was only 1.26 compared to 5.02 in Spanish. Tina's mother may have lower English competencies compared to the other parents, or she may purposely limit her English use (as seen by her low frequency of both English and all types of mixed utterances). The high word MLU in Spanish utterances by the Spanish-speaking parents show that all children in the corpus receive a great deal of quality Spanish input in the home (at least during the recordings), which, according to Romaine (1995), will help them to develop as bilinguals as quality of input (ex. high word MLU) is more important than amount or frequency of use (which they also receive). This suggests similar levels of complexity in the Spanish and English input provided by these parents, which can be seen as a good indication of minority language maintenance as the complexity of Spanish is not lower than English.¹⁴

Although there was relatively little language mixing done by the parents, overall the word MLU for mixed utterances was higher than monolingual utterances, and the word MLU for MSD was consistently higher than that of MED utterances, again perhaps showing a high level of commitment to Spanish language maintenance even when code-mixing.

5.2.1.4 Complexity of Language Use by Children

In regards to monolingual utterances, the children with higher word MLU in Spanish than English utterances were Carla and Tina, whereas Alberto, Antonio, John, and Sheila had a higher word MLU in English than Spanish utterances. These findings correspond to the

¹⁴ Based on word MLU. There are other measures and aspects of complexity (e.g. length of clause, t-unit counts, etc.) that are beyond the scope of this study and thus this indication is fairly suggestive.

higher use of each language by the individual children, except for Antonio. As seen in the previous chapter, although he had a much higher frequency of use of Spanish than English utterances, his word MLU in English was higher than Spanish, suggesting that he may be English dominant. This may be explained as, although he spoke mainly Spanish with his mother during recordings, his father has reported Spanish language competency of 0, hinting to the fact that his mother and father may speak mainly English between them, and therefore creating a more English-rich setting with triadic conversations in English. This limitation applies for all children in the corpus; having more information on the language of communication between the parents would allow for a better understanding of the patterns of language use between all family members. This has also been mentioned as a limitation in the literature on family language policy (see De Houwer, 2009; Slavkov, 2016; among others).

In terms of bilingual first language development, when looking at word MLU in both monolingual English and Spanish utterances, all six children seem to have reached the early language development milestones for their ages as set out by De Houwer (2009; recall table 2.1). The milestone of producing short sentences by age 2:6 to 3:0 (i.e. more than two words) was reached by all children and is a promising finding for their bilingual first language acquisition.

Similar to their parents, generally the word MLU for mixed utterances by the children was consistently higher than that of utterances exclusively in English or Spanish. This supports the findings that bilinguals tend to draw on both language repertoires to produce more complex utterances and be linked to translanguaging (García, 2009; Otheguy, García, & Reid, 2015), or the "deployment of a speaker's full linguistic repertoire without regard for watchful adherence to the socially and politically defined boundaries of named...languages" (Otheguy, García, & Reid, 2015, p. 283). In addition to the availability of two language systems from which to draw from (discussed in chapter 2), mixed utterances have a higher

MLU, according to Silva-Corvalán & Sánchez-Walker, because they include an overt subject by definition (2007, p. 14). They found that the young children in their study had higher word MLU in mixed utterances, partially because overt subjects add to word MLU compared to utterances in only Spanish or English, which do not necessarily require an expressed subject (2007). Additionally, these findings show that code-mixing is not a deficiency but rather an effective and helpful communicative tool that presumably allows children to express themselves in longer, more complex utterances with their bilingual interlocutors.

In summary, the findings for the first research question showed that, in general, there was a higher use of Spanish by the parents present during the recordings. There was limited English used by the parents, but the complexity was similar to that of their Spanish utterances, which is in line with the language competencies reported by Pérez-Bazán. There was very little mixing done by the parents, however the word MLU was consistently higher than their monolingual utterances. Similarly, there was a limited amount of mixed utterances used by the children, yet any mixing also showed a higher word MLU than monolingual utterances. The use of English and Spanish was generally divided between three of the six children using more English than Spanish, and the other three using more Spanish than English. The three children who used more Spanish were from those families whose parents were either both native Spanish speakers, and/or whose parents showed a higher use of Spanish overall.

5.2.2 Parental Language Use and Potential Family Language Policies

When looking at the overall parental language use, an interesting finding is that although there was a greater tendency for many parents to speak in the minority language, no parent had a clear avoidance of the majority language or exclusive use of the minority language. This is consistent with what has been found by Hoff (2009) in regards to parental language input and lends itself to discussion of family language policy. There was no

information on language policies or tendencies reported by the parents in Pérez-Bazán's study, however some observations based on the results can be made. As no parent avoided the majority language completely, stating that a family may use a "one parent, one language" policy (recall chapter 2) is difficult, however many families in the corpus do show tendencies toward this type of language environment, while others may qualify as examples of other types of language policies (as defined in chapter 2).

Families such as Antonio's, discussed earlier, with a native-Spanish mother and native-English father with little to no Spanish knowledge, may be an example of a "one parent, one language" environment. As mentioned, Antonio showed interesting language use patterns as he used Spanish more frequently during the recordings, yet had a higher word MLU when speaking in English. His Spanish mother was present throughout the recordings, however his English father's utterances accounted for only 0.91% of all utterances in the subcorpus and were all in English (with the exception of one ambiguous utterance). Based on this data, it could be asserted that his parents generally speak to him in their respective native languages, yet the triadic communication is in English (or else there would be breakdowns in communication with the father's little to no Spanish ability), resulting in English-dominant input. John and Sheila's families could also be postulated to employ this strategy, as John's mother and Sheila's father are both native-English speakers with a reported Spanish language competency of 0.

Along the same lines, as mentioned in the previous chapter, Alberto's father was a native-English speaker rated as having a linguistic competence of 0 in Spanish, yet spoke mainly in Spanish with Alberto. It is unclear in the information available if this is representative of the father's typical linguistic habits with Alberto, however it should be noted that the Spanish he used could be compared to that of an early-intermediate speaker (a subjective judgement based on my experience learning and teaching Spanish). Regardless of

his abilities, his high use of Spanish and his instance on Alberto also using Spanish (shown later in this chapter) can be seen as a commitment to the transmission of the language and the implementation of a “one language, one environment” family language policy, in which both parents speak the minority languages in the home although it is not the native language of one of the parents.

Furthermore, given the high frequency of use and complexity of Spanish by both parents and the children in the Carla and Tina corpora, it could be asserted that their families may employ the policy known as “minority home language without community support”, as both parents are native Spanish speakers and have a very high frequency of use in Spanish compared to English.

The findings for the language use and complexity and the postulate of the family language policies that these families may use can be further explored using the findings of the PDS used by the parents, discussed below.

5.3 Use of Parental Discourse Strategies

To answer the first part of the second research question, *Which parental discourse strategies were used by the parents, if any, to encourage the children’s use of the minority language and what was the language of response of the children?*, all instances of the use of PDS were recoded. All five PDS listed by Lanza (1992) and the two additional ones added for the purposes of this study, were used by the parents in the corpus. Although there was some individual variation of the PDS used by each parent, the individual corpora results were consistent with those of the group results.

The move on strategy was seen in all corpora and had the highest rate of use (35.48%) in the overall results of all parents. When considering general social norms and the idea of ‘turn-taking’ in which conversations are conducted by continuing the pattern of one person speaking and another listening (discussed in section 2.8.2), it makes sense that parents would

choose a strategy that allows for the flow of conversation to continue. In other words, this strategy facilitates communication and does not stop or impede the dialogue as both interlocutors continue on with the general turn-taking flow of normal conversation without one having to restate what they just said in language X or in language Y if both interlocutors understand both languages. An example of this can be seen in table 5.1, a discourse sample found in the John corpus while John and his father were playing:

Table 5.1. Sample Discourse from the John Corpus

Line	Participant	Utterance (as presented in the transcripts with additional English translations)	Language	Parental Discourse Strategy/Child Response
1	Father	cuántos años tienes John? 'how old are you John?'	Spanish	
2	John	do you know?	English	Responds in majority language
3	Father	yo sí lo sé y tu también. 'yes I know and so do you'	Spanish	Move On
4	John	I don't know.	English	Responds in majority language
5	Father	cuántos años tienes John? 'how old are you John?'	Spanish	Move On
6	John	I don't know.	English	Responds in majority language
7	Father	cuántos años tienes? 'how old are you?'	Spanish	Move On
8	John	I don't know.	English	Responds in majority language
9	Father	no lo sabes? 'you don't know?'	Spanish	Move On
10	John	no.	Ambiguous	
11	Father	cómo que no sabes? 'how do you not know?'	Spanish	
12	Father	tienes cuatro? 'are you four?'	Spanish	
13	John	Sí. 'yes'	Spanish	Responds in minority language
14	Father	no, no tienes cuatro. 'no, you're not four.'	Spanish	
15	Father	tienes cinco? 'are you five?'	Spanish	
16	John	sí. 'yes'	Spanish	Responds in minority language
17	Father	no, no tienes cinco. 'no, you're not five'	Spanish	
18	Father	tienes tres? 'are you three?'	Spanish	
19	John	sí. 'yes'	Spanish	Responds in minority language
20	Father	sí, tienes tres. 'yes, you're three'	Spanish	

This discourse sample shows not only the flow of communication continuing on regardless of the child's language choice, but also shows how this strategy can be used to preserve family harmony, in this case during a playful moment between John and his father (the larger discourse situates this moment within a longer period of time playing with toys before bed). As seen in Lanza (1992, 1997) and Slavkov (2014), relying too much on the move on strategy can lead to the child becoming a passive bilingual in the minority language because it allows communication to continue without rewiring the child to switch to the language preferred by the parent (minority language).

Additionally, this example shows how although the move on strategy generally leads to the child responding in the language dispreferred by the parent, it can also lead the child to begin to respond in the preferred language simply by the parent maintaining its use (i.e. by continuing to provide Spanish-only input). Although this is not the norm (as will be discussed below), it can be seen as the desired outcome of the parent based on their continued use of the preferred language.

Move on was followed by repetition (21.44%) and adult code-switch (13.84%) in frequency of use. Similar to move on, these strategies also allow for the continuation or flow of the conversation although to different extents and with different outcomes. Repetition, although an attempt to encourage the target language, does not necessarily stop the flow of communication by making the child repeat themselves, but rather provides an interruption on the part of the parent yet still allows for the sequence of turns and conversation to continue. Although the parent implicitly indicates that the utterance was said in the dispreferred language, the child may or may not continue speaking without repeating the word in the target language or even acknowledging the attempted correction. Adult code-switch, as stated by Lanza (1992, 1997) is the strategy which not only allows for no breaks in the conversation, but also encourages the use of the non-target language as the parent switches

codes and continues the conversation without any attempt to ‘correct’ the child by making them use the minority language. From a language socialization perspective, this strategy also eliminates the expectation that the child communicates in the minority language with that interlocutor. This strategy was seen by all but three of the ten parents: Antonio, Carla, and Tina’s mothers, all of whom are native Spanish speakers. These are also the three children with the highest use of Spanish throughout the corpora, a finding that supports Lanza’s hypothesis (1992) that this PDS eventually leads to a higher use of the majority language by the children overall as it limits the minority language input.

Following in the frequency of use by all parents was modelling (9.36%). The overall use of this strategy can be attributed to its high use by Sheila’s mother. During the recording, her mother was teaching Sheila many new words in Spanish, mainly colours, which she already knew in English. Additionally, given the ages of the children and the stages of their language development, the parents may be attempting to model fully developed and complex sentences, as will be seen in the discourse sample in table 5.2. In this example, Alberto’s father models the phrase “Give me Ovaltine, please.” rather than just saying “Ovaltine, please”. In this case, the utterance modelled by the father was successfully used (or at least repeated) by Alberto.

In line with the idea of keeping communication flow, expressed guess (9.16%) and minimal grasp (6.63%) had lower rates of use than the previously mentioned PDS. Although expressed guess does impede the flow of communication (i.e. the turn-at-talk order is disrupted and a conversational repair is required), it does not require the child to repeat what they said in the minority language as they can simply say, “yes” and continue talking. This is unlike minimal grasp, which requires the child to restate what they said in the preferred language of the parent in order for the parent to understand (even if their lack of understanding is feigned, as pointed out by Lanza (1992) and mentioned in chapter 2). This

break in the flow of the conversation may be a reason why parents used this PDS less frequently than the others mentioned so far.

Continuing this pattern of potentially not wanting to impede the flow of communication, the PDS of translation request was used the least by the parents overall (4.10%). This strategy could be considered to be one of the PDS which requires the flow of communication to be cut and puts the conversation 'on hold' until the child restates what they said in the language dispreferred by the parent (i.e. the majority language) in the parent's preferred language (i.e. the minority language).

As seen from the discussion above, the order of frequency of use of PDS found in the overall data follows a strong pattern of those that impede communication least having the highest use overall, and strategies that disrupt communication the most having the lowest. An example of these strategies in use can be seen in the Alberto corpus in a conversation between Alberto and his father. The discourse sample in table 5.2 shows how the father first uses the move on strategy in the conversation, then his request for Alberto to ask his question in Spanish causes not only a stop in the conversation, but also a negative response from Alberto, as seen in line 12.

Table 5.2. Sample Discourse from the Alberto Corpus

Line	Participant	Utterance (as presented in the transcripts with additional English translations)	Language	Parental Discourse Strategy/Child Response
1	Alberto	i need more ovaltine	English	
2	Father	agua por favor 'water please'	Spanish	Move On
3	Alberto	no: drink [=! crying]	English	Responds in Majority Language
4	Father	okey 'okay'	Spanish	Move On
5	Father	pregunta en español 'ask in Spanish'	Spanish	Translation Request
6	Alberto	ovaltine	Ambiguous	
7	Father	en español primero 'in Spanish first'	Spanish	Translation Request
8	Father	"sí dame ovaltine por favor" 'yes give me ovaltine please'	Spanish	Modeling
9	Alberto	no	Ambiguous	
10	Father	está bien, es padrísimo [?] [/] es padrísimo 'it's ok, it's cool, it's cool'	Spanish	
11	Father	dile dame ovaltine por favor	Spanish	Modeling
12	Alberto	&=cry		
13	Father	dice [/] dice [/] dame ovaltine por favor 'say say give me ovaltine please'	Spanish	Modeling
14	Alberto	dame ovaltine por favor 'give me ovaltine please'	Spanish	Responds in Minority Language

Additionally, the Alberto discourse sample is an example of the multiples uses of PDS by the father, as well as the various responses possible from the child. The father first used the move on strategy (line 2), resulting in Alberto responding in English (which has been seen throughout the results and is in line with Lanza's Parental Discourse Hypothesis), then a translation request (line 5) in order to encourage Alberto to use Spanish. This first direct request was not particularly successful as it resulted in Alberto simply naming what he wanted rather than saying the full utterance. This could be because he was potentially attempting to take a shortcut in expressing his request without having to say the full utterance

in Spanish, as he did in English. This could be because he is perhaps finding it difficult to say in Spanish, or because he is resisting repeating it in Spanish for some reason. The father then used the modelling strategy, resulting in a direct refusal from Alberto (by saying, “no”), followed by crying after the father used the modelling strategy yet again. Finally, after the father’s insistence by his third modelling PDS, Alberto finally responds in Spanish.

The use of multiple PDS in this sample also shows the way in which PDS can relate to family harmony and flow of communication. As the father attempts to use the translation request, the child resists. He attempts two additional PDS, which were met with negative emotion from the child (the second instance of crying). This is an example of a situation where the father's attempt to make Alberto use Spanish perhaps lead to a confrontation where the child is saying “no” (line 3) and starts crying immediately after a translation request paired with the use of modelling. The confrontation is resolved by the father eventually managing to get Alberto to make the request in Spanish by repeating what he said (done with the modelling PDS). As such, the ‘reward’ of Ovaltine is eventually given and the conversation continues. In this conversation, the flow of communication was significantly delayed by the fact that the father was insistent on the child using the minority language. In this case, the PDS were ultimately successful in encouraging the use of the minority language, however, it is not always convenient or possible for parents to interrupt conversations in this manner as doing so both interrupts and delays the conversation. Furthermore, children may actively resist and even display negative emotions when the parent is using a strategy that attempts to make them express themselves in the minority language when they have already done so in the majority language (with presumably higher ease and proficiency). As such, many instances of the move on strategy are seen throughout the corpus as this PDS is met with no resistance and the conversation is able to continue without negative reactions from the children or the need for repairs. This fine line between

the need for family harmony or the flow of communication and the insistence on minority language use can be seen as difficult for parents and relates to implementation and/or following of a family language policy, as well as the level of minority language maintenance attempted by the parents and the subsequent bilingual development of the child.

This discourse sample is also an illustration of the differences in the number of PDS and the number of child responses as it is an example of situations in which a parent used multiple PDS in a single turn, or discourse strategies with either no response from the child or a response that was ambiguous. The use of multiple PDS within a turn is seen in this discourse sample as the father uses two distinct PDS in a turn on two occasions (move on and translation request in lines 4 and 5, and then translation request and modelling in lines 7 and 8). The instance of having non verbal response from the child is seen when Alberto cries in response to his father, and instances of ambiguous responses are seen in Alberto's responses of “no” and “Ovaltine”. These utterances were coded as ambiguous as both words exist in English and Spanish, yet can only be differentiated based on phonological information that was not available in the data. It could be assumed that the responses were in English as the father continued to request Alberto answer in Spanish, however assumptions of this kind are inappropriate in the analysis of solely transcribed data.

In addition to requiring the coding of ambiguous utterances, this example shows the challenges of dealing with the limited data available (no audio or visual files) in determining the full situation based on transcripts only. After Alberto's request for Ovaltine in English, the father responds in Spanish by saying, “*Agua por favor*” [Water, please]. The child then cries and repeats his request in English, followed by another response by the father in Spanish requesting that Alberto asks again in Spanish. Situations like this beg the question if the child is refusing to speak in Spanish, or simply crying because he wants Ovaltine rather than water. If audio or visual aids were available, there may be more clues (intonation, facial expressions,

body language, etc.) to help come to a better understanding of the dialogue (for discussion of other limitations of the study, see next chapter). This example also illustrates a general problem in DA, and in CA in particular: the inability to assign intent to the interlocutor's utterances. For example, it is impossible to know whether the father would use the repetition strategy in an attempt to get the child to repeat the utterance in Spanish, or because he simply got distracted.

5.4 Successfulness of Parental Discourse Strategies.

The second part of the second research question, *Which parental discourse strategies were used by the parents, if any, to encourage the children's use of the minority language and what was the language of response of the children?*, and subsequently the third research question, *“Based on the language of response of the children, which of the parental discourse strategies used were the most successful in encouraging the use of the minority language?”* was answered by noting the language of response of the children in their next conversational turn following each PDS used by the parents. Responses were categorised as *Responds in majority language* (English), and *Responds in minority language* (Spanish). Those PDS that garnered a response in the minority language were deemed successful. As outlined in the results chapter, the difference in the number of PDS and the number of responses was removed before calculating the success of the strategies. Reasoning for this was that, as mentioned in chapter 3, it was of interest to see all of the PDS used by the parents, even if multiple were used within the parents' turn-at-talk (refer to the discourse sample in table 5.2 above). For the final success rate of the strategies, only those that were immediately followed by a response from the child (i.e. those forming adjacency pairs) were used. Although the first PDS may have been the one that influenced the child the most, it is impossible to know, and this was seen as the best methodological solution.

When looking at the successfulness of the strategies at the group level (recall table 4.2 in the previous chapter), the overall results validate Lanza's Parental Discourse Hypothesis, as well as the idea of placing the strategies on a monolingual to bilingual continuum in regards to the context they help create. The results indicate that the more bilingual strategies (those that allow for both the minority and the majority languages to be used), move on and adult code-switch, are less likely to cause the child to use the minority language, creating a more bilingual context, whereas the more monolingual strategies (those that encourage only the use of the minority language), such as modelling and translation request, are more likely to encourage the use of the minority language, creating a more monolingual context.

These findings at the group level are also generally similar at the individual family level as well, but it is important to consider individual contexts of the varying family dynamics and language use as well.

John and Sheila's individual responses to the PDS used by their parents were very similar to each other and were the most consistent with the overall group findings. The more monolingual strategies used by their parents had a higher rate of success in encouraging them to use Spanish, however both responded exclusively in English to their parent's code-switching. This, again, is in line with Lanza's Parental Discourse Hypothesis and the notion that the code-switch strategy will lead to a high level of use of the majority language by the child.

Alberto's responses in the minority language were similar to that of the group results, however he did use English in responses to all seven types of PDS at least twice, even modelling and translation request, two of the more explicit strategies. As mentioned earlier, his native-English father's high use of his low-intermediate Spanish during the recordings may or may not be representative of his language patterns outside of the recordings (again, there is no way to know with the data available). As such, Alberto may be used to his father

speaking English and therefore accustomed to speaking English with him until his father started further developing his Spanish skills. Additionally, Alberto is clearly aware of the fact that his father is an English speaker and may therefore stretch the boundaries when it comes to ‘acceptable’ English use in the home. Alberto appears to know that he can get away with using English with his father as he understands without issue. Depending on his father’s regular language use patterns, Alberto may realize on some level that English is his father’s stronger language (and perhaps is used to communicating with him in English more than Spanish). Further data (recorded or self-reported) on the family’s typical language use patterns would be required in order to explore this finding more.

Antonio responded in the minority language more often than the majority language to the PDS used by his mother. An interesting result was his responses in Spanish to half of the *move on* strategies used by his mother. One possible explanation of Antonio’s responses in Spanish to his mother’s use of this PDS might be that, although he may have said an utterance in English, he self-corrected, consciously or subconsciously, and responded to her in Spanish. That is, even if he used English in his previous turn and his mother did not use a high-incidence strategy to try to bring him back to the minority language, he came back to it on his own. This interesting finding of potential ‘self-correction’ was also seen with Carla as well as Tina, as seen in table 5.3.

Table 5.3. Sample Discourse from the Tina Corpus

Line	Participant	Utterance (as presented in the transcripts with additional English translations)	Language	Parental Discourse Strategy/Child Response
1	Tina	stop it!	English	
2	Mother	que no se dice. ‘don’t say that.’	Spanish	Move On
3	Tina	voy a pegarle a muchos niños. ‘i’m going to hit many children.’	Spanish	Responds in Minority Language

Even though both Carla and Tina responded in English at least once to a PDS used by their mothers, they tended to respond more in Spanish overall, including to their mothers' uses of the move on strategy. This may also be related to the general use of Spanish over English by all three of these children as well.

In summary, the overall results showing the successfulness of the PDS used based on the language of response of the children suggest that the PDS that aim at creating a monolingual context (i.e. in which only the minority language is used) were more successful in encouraging the child to use the minority language, whereas the more bilingual strategies (those that allow for both the minority and the majority languages to be used) are less likely to encourage the child to use the minority language. These results not only support Lanza's placement of the strategies on a monolingual to bilingual continuum (as well as the placement of the two additional strategies used for this study), but also validate the Parental Discourse Hypothesis that certain PDS in response to a child's code mixing encourage the further use of mixing (namely move on and adult code-switch) while others discourage it (such as translation request, minimal grasp, etc.).

5.5 Minority Language Maintenance Versus Harmonious Family Communication

As the research questions of this study were answered, the results show an apparent contradiction: the more successful strategies were used less frequently throughout the corpus both at the group and individual level, and, at the same time, the less successful strategies were used more frequently.

When looking at the frequency and subsequent successfulness of the PDS, it can be seen that some of the least effective ones, namely move on, were used more often by the parents. The more effective ones, such as translation request, were, on the other hand, used less frequently. Given the high use of Spanish by the parents and the use of PDS throughout the corpora, it can be seen that the parents are in a position in which they want to transmit and

maintain the use of the minority language. This apparent paradox of a higher use of the less effective PDS compared to the more effective ones then can be seen to contradict this desire, but can perhaps be explained using the idea of conversational norms and communicative efficiency/flow as mentioned in the previous section. The conflicting pressures (personal or social) on parents to promote and use their minority language while also keep communication flow with their child may justify the conscious or subconscious use of these strategies. This is seen in the discourse sample in table 5.1 in which John's father continues his use of Spanish even though John responds in English. The father uses a high number of the move on strategy in this example perhaps because he and John are having fun/playful time and his use of this strategy keeps the conversation going and allows for this activity to continue being fun for John. If, for example, his father started to interrupt the conversation more and tried to make him actively produce Spanish, it is possible that the fun moment would have been lost, or that John would resist or even display negative emotions (similar to what was seen with Alberto in line 12 of table 5.2).

The use of multiple PDS is another way in which a parent can attempt to encourage the use of the minority language yet preserve family harmony and flow of communication. An example of this was seen in table 5.2 in which Alberto's father starts off using translation requests in lines 5 and 7, and, because they did not have the desired effect, supplements with modelling in line 8, eventually reaching his goal of having Alberto respond in the minority language (line 14).

Lastly, in order to preserve family harmony and create an environment of open communications, this apparent contradiction may be justified as parents may feel the need to allow their young children to express themselves freely in whatever language they choose to do so and to avoid potential conflicts by pushing the children to use the minority language in which they may not feel comfortable. This can be seen throughout the corpus with the use of

the move on strategy by all parents, but particularly when children are upset. This has also been seen in previous studies, including Uribe de Kellet (2002), who studied a bilingual Spanish/English child in the United Kingdom and suggested “not forcing the children to use Spanish perhaps also ensured that they continued to have positive feelings towards both their languages and cultural backgrounds” (p. 177). Although Uribe de Kellet continued to speak in Spanish as the family valued minority language maintenance, it was felt that it was more important to have a passive-bilingual child with a positive attitude towards bilingualism that was able to freely express themselves in English.

5.6 Children as Active Agents of Their Own Language Socialization

Extending from the apparent contradiction of parents using the less successful PDS more frequently in order to allow for flow of communication, the PDS are generally used in response to the children’s use of English. Although the use of English with their English speaking parent is expected, the use of English with their Spanish speaking parent (or both parents in the cases of Carla and Tina), can be seen as their way of showing which language they wish to use, consciously or subconsciously. By showing this, they are not being passive recipients of PDS, but active agents of their own language socialization. This can be seen in the various examples of resistance to, or ignoring of, PDS used, when the children continue to speak in the language dispreferred by the parent. This is also seen in the emotional or negative responses, as seen earlier in the Alberto discourse sample in table 5.2. Additionally, this can be seen by not replying in Spanish when asked to by either repeating the utterance in English, or ignoring the PDS and continuing to speak in English. In other words, the corpora contain various examples that illustrate children's ability to implicitly or explicitly negotiate their language choices and the parents often have to make compromises despite their efforts to maintain the minority language.

In terms of family language policy, these findings place the children as active members of the development and negotiation of their family's language policies to some extent. Their responses to their parent's use of PDS, as well as their general language use overall, give insight into which language(s) they prefer to use, whether that be based on identity, comfort, language abilities, or perceived social status of the language (further information would be required to fully understand and such analysis falls outside the scope of this study). Their language preferences may be due to factors outside of the family home (friends, daycare etc.), or even within the home. For example, although a child may be surrounded by Spanish at home (in the cases in which both parents are native Spanish speakers), they are living in a minority language setting, meaning they are exposed to English when outside of the home (at the grocery store, the bank, etc.) as well as in the home through media (via television, movies, music, etc.) to some extent. More data on their exposure to English would be necessary to make any inferences.

By being active agents of their own language socialization, they are, at least to some extent, having a say in their own future bilingual development. Further research on children who show a strong resistance to PDS would be of interest in order to fully see and understand such roles and potential outcomes.

5.7 Additional Observation

This section discusses an observation that was made during the coding and analysis of the Alberto corpus in regards to his parent's language use patterns. It did not form part of the research questions, but was seen as an interesting finding and may help to further illustrate the results discussed above. As discussed earlier, Alberto's father was a native-English speaker with a Spanish competency of 0 as reported by Pérez-Bazán. During the recordings, he and Alberto's mother, a Spanish native, spoke to Alberto in Spanish. There were, however, multiple times when both parents used English to address Alberto when giving commands.

Such commands included, “*Do not throw it!*”, and, “*Be careful! It will break!*”. Although these are instances in which the parent switches languages, they are not necessarily PDS as the child may not have said anything in either language before (i.e. playing silently). One interpretation of this observation can be that both parents are aware that Alberto has higher language abilities in English (as seen in chapter 4) as these types of utterances are used when the intention is for the child to listen or react immediately (in these cases, for safety reasons), especially on behalf of the mother who switches from speaking in her native language to her second language. This again reinforces the dichotomy between the need for minority language maintenance and the efficiency communication. In this case, clear and efficient communication that will be understood by the child takes precedence and the parents prioritize communication efficiency over minority language maintenance. This change in language may also act as a signal to indicate the seriousness of the situation as it may catch the attention of the child who is used to a parent speaking in Spanish.

5.8 Summary

This chapter further discussed and interpreted the results presented in chapter 4 as they relate to each of the three research questions. An analysis of the parent’s language use was given and reviewed in terms of the potential family language policies they may follow. The PDS used by the parents and their successfulness was discussed and it was concluded that although the parents used Spanish at a higher frequency than English, they used more PDS that were less successful in encouraging the children to speak in the minority language but that allowed for continuous conversation. The findings also show that by the young children selecting which language to express themselves in, they are highlighting their role as agents of their own language socialization regardless of their parents’ attempt to communicate in or sometimes enforce the use of the minority language. The fact that this data was collected in a minority language context with little community language support can be

seen as a portrayal of the challenges parents face when attempting to transmit and maintain the minority language as even native Spanish speakers may end up using English at a higher frequency based on the needs of their daily life. This, ultimately, may lead to a context in which their children develop as passive bilinguals, or undergo attrition and/or incomplete acquisition at some point in their minority language development. The next chapter concludes this study by discussing its implications, its limitations, and related future research.

Chapter 6: Conclusion

This chapter concludes this study by discussing its implications, its limitations, and related future research.

6.1 Summary

This study looked at the various strategies used by parents when attempting to solicit the desired use of the minority language, Spanish, from young children ages 1;8 to 3;3 living in the United States in a minority language context. It had three main objectives. The first was to see which PDS were used by the parents when encouraging the use of the target (minority) language. The second was to see in which language the children respond to each PDS used, and, building on this second objective, the final goal of this study was to see if the children's language of response could be used to determine which of the PDS used by the parents were the most successful in encouraging the child to use the target language.

The first objective was first met by coding the language of utterance for each participant, then, where there were instances of the children using English, the PDS used by the parents to influence the child's use of Spanish language were coded. The first part in reaching this objective also allowed for the analysis of the language use and complexity by both the parents and the children of both the majority and minority languages to further understand the use of the PDS.

The second and third objectives were met by further analysing the data by looking at the language of response by the children to the PDS used. The language of the children's responses was then used in unison to measure the success of the PDS in influencing the children to use the minority language.

Reaching these three objectives by using the three research questions previously outlined, it was found that all PDS outlined by Lanza (1992), as well as the two additional

strategies added to this study, were found to have been used by the parents. The order of the PDS used in the corpora based on overall frequency of use was:

1. Move On (35.5%)
2. Repetition (21.44%)
3. Adult Code-Switch (13.84%)
4. Modelling (9.36%)
5. Expressed Guess (9.16%)
6. Minimal Grasp (6.63%)
7. Translation Request (4.10%)

Furthermore, based on the language of response of the children, it was found that the order of PDS based on overall successfulness in eliciting a response in the minority language was:

1. Modelling (89.58%)
2. Translation Request (66.67%)
3. Repetition (65.93%)
4. Minimal Grasp (64.71%)
5. Expressed Guess (64.44%)
6. Move On (33.33%)
7. Adult Code-Switch (9.30%)

As seen in these two lists, it was found that there is an apparent contradiction between the frequency of PDS used and the overall success they had in encouraging children to use the minority language as the least successful PDS were used the most, perhaps in order to maintain the flow of communication and avoid any conflicts.

6.2 Implications

This study contributes to the fields of minority language maintenance and family language policy as the examination of the child responses to the PDS used show which

strategies proved influential in encouraging the children to use the minority language with their parents. When looking at the PDS used in the corpora and the language of response they garnered from the children, the results of this study generally support Lanza's Parental Discourse Hypothesis that certain strategies are more effective than others. When considering the successfulness of the PDS compared to their frequency of use, the data offers interesting insights into the conflict parents face when attempting to transmit a minority language while communicating efficiently and harmoniously as a family. As seen above, it was found that there is an apparent contradiction between the choice of PDS used and their overall effectiveness in encouraging children to use the language preferred by the parents. This contradiction can be explained by conflicting pressures parents face to promote minority language use while also keeping fluid communication and allowing children to communicate in their desired language without insisting on the use of the minority language.

Although this study involved Spanish/English bilingual children living in a minority language context in the United States, the findings are applicable to other linguistic situations as well. The insights into the successfulness of the PDS can be seen as valuable knowledge for parents wishing to raise their children bilingually in communities with little or no minority language support as it shows how they can use PDS in conversation in order to encourage the use of the minority language and create a more monolingual context in the home which will, hopefully, result in the child developing high linguistic competencies in both languages.

Although only a small piece of the puzzle, these findings can be useful when providing parents with the best practices to raise their children bilingually. This type of information is applicable to both new parents who speak a language different from that of the community their child will be born into, or to families who move to a new area and wish for their children to maintain their first language(s) while learning the majority language(s) of

their new community. These findings could also be important to those who advise parents on such linguistic matters, including medical professionals, teachers and school personnel, religious or ethnic community leaders, or government and/or private agencies which provide information to immigrants.

6.3 Limitations

The various limitations of this study have been discussed throughout the previous chapters as they arose and were mainly based on the data available. Methodological decisions were made in order to account for these limitations and their potential effects on the results.

When analysing the data, the main limitation was the lack of supporting media (audio and/or visual) available with the transcripts. Although this is not limitation in the ability to code or analyze the data completely (as discussed in chapter 2 in regards to DA), it did make it difficult to make clear assertions as to the language of utterance, namely in the cases of ambiguous utterances. With phonological information, it would have been possible to limit the number of ambiguous utterances coded, having them, ideally, categorised into either English or Spanish and giving an even more in depth understanding of the child's linguistic input and output. Additionally, without having visual or audio support, it was difficult at times to understand the context in which the conversations took place, namely child-parent interactions which included breakdowns in communication. Some breakdowns are typical of young children regardless of monolingual or bilingual abilities and with limited data available it is a challenge to determine the full situation based on transcripts only. Finally, without supporting media, it was not possible to show intent by the parents. As mentioned in previous chapters, a parent asking "*Mande?*" [What?] in response to a child's English utterance could be in order to encourage the child to speak in Spanish, or it could mean that the parent simply did not hear or understand what the child said because of background noise, the child's

pronunciation, etc. As such, coding transcripts for PDS remains a challenging task that can be approached differently by different researchers, potentially yielding different results.

Another limitation was in the amount of transcripts per child and their lengths, and the children's ages at the time of recording. When comparing the various corpora in the Perez corpus, some included over ten hours of recordings, whereas others were limited to little over an hour. This discrepancy in the amount of data available for each child does not allow for an equal evaluation of a child's language use and input, including any PDS used by their parents. The ages of the children, although similar over all, were different at the time of recording, therefore making comparisons of the various stages of their language development and/or language socialization not viable.

Finally, when looking at the amount and complexity of linguistic input the children receive, the limited data on the parent's linguistic competences in, and their uses of, the majority and minority languages made it difficult to assert clear interpretations of the results. Also, for many of the transcripts, only one parent was present (generally the Spanish-speaking parent), not allowing for a representative sample of the dyadic or triadic conversations within the family. Furthermore, some sections of discourse were missing or summarized, such as "*Father continues to read the book in English*", or, "*Parents talking with each other in Spanish*". Although these summaries give context to the conversations, they limit the ability to analyse all spoken input the child receives, including complexity.

6.4 Future Work

In regards to future research based on or related to this study, a further look into the successfulness of the PDS used by parents by studying a larger corpus of recordings over longer periods of time would be desirable. This would give the opportunity to see if parents' use of PDS and and/or language of children's responses change with their age and linguistic development. It would also be of interest to see if parents change the use of PDS in other

settings outside of the home, including in the larger community where they live, or in communities where the minority language is the majority, such as in their parents' native country/countries (as seen in Slavkov, 2014).

6.5 Conclusion

To conclude, this study ultimately showed that the parents in the corpus actively used PDS in order to transmit and maintain Spanish, yet the use of the most successful strategies was limited when favouring harmony in family communication. To apply these findings, it is suggested that parents committed to minority language maintenance continue to communicate in the minority language, while picking their battles when it comes to balancing their insistence on its use and family harmony by allowing their children to express themselves in whichever language they feel most comfortable. In terms of family language policy, it can be seen that PDS are helpful when it comes to minority language maintenance, but they are only a small contributing factor. Minority language maintenance in general is a very challenging and complex endeavour, influenced by a large number of situational, linguistic, social, and individual factors related to both parents and their children. Nevertheless, although this study focused on only one subset of these factors, PDS, I hope that it contributes to some advancement of knowledge in the area and the continual growth towards the development of bilingual children in an ever-growing plurilingual world.

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Appendix A - CLAN Codes

Code	Meaning
Participants *Coded by Pérez-Bazán	
*CHI:	Child
*MOT:	Mother
*FAT:	Father
Language of Utterance	
%cod:\$LAN:E	English
%cod:\$LAN:S	Spanish
%cod:\$LAN:M	Mixed: Equal
%cod:\$LAN:ME	Mixed: English
%cod:\$LAN:MS	Mixed: Spanish
Parental Discourse Strategies	
%cod:\$ADS:MG	Minimal Grasp
%cod:\$ADS:EG	Expressed Guess
%cod:\$ADS:RT	Repetition
%cod:\$ADS:MO	Move On
%cod:\$ADS:CS	Adult Code-Switch
%cod:\$ADS:TR	Translation Request
%cod:\$ADS:MD	Modelling
Child Responses	
%cod:\$CCS:ROL	Responds in majority language (English)
%cod:\$CCS:RTL	Responds in minority language (Spanish)