

# Mixed Utterances, Lexical Input, and the Danish Educational Plans For Non-Ethnic Danish Bilinguals\*

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Senior Linguistics Thesis  
Swarthmore College  
December 6, 2009

## ABSTRACT

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*Denmark's homogeneous society has recently diversified with a surge of immigrants from the Middle East. These foreign-born citizens, labeled Non-Ethnic Danes, have varying levels of mastery in Danish. The Danish government has responded by creating language immersion schools for Non-Ethnic Danish children. Non-Ethnic Danish children of preschool age are placed in separate institutions with Danish staff members who educate students in Danish culture and language until a certain proficiency, at which time the children are mainstreamed into regular Danish schools. Recent research in bilingual language acquisition (Da Fontoura and Siegel (1995), Deuchar and Quay (1998), Hulk (2001), Paradis and Navarro (2003), Bernardini (2004), Paradis et al. (2008)) that focuses on mixed utterances and lexical input has certain implications for Denmark's educational plans for Non-Ethnic Danish bilinguals of preschool age. Mixed utterances, where one or more words from two different languages are juxtaposed in a phrase or sentence, occur as a bilingual child develops two language systems. Bilingual children often have asymmetrical development of two language systems, which is a result of varying degrees of lexical input. This paper argues that the Danish educational plan has benefits for Non-Ethnic Danes at an early age because it recognizes the unique language acquisition process of bilinguals. By offering an alternative education that separates bilingual children from monolingual children, the Danish government relieves bilingual children of the pressure to perform at the level of monolingual Danish speaking children until the two language systems have had the opportunity to reach the same level of development.*

Word Count: 250

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## 0.0 Introduction

In the language acquisition process, bilingual children often have *mixed utterances*. Mixed utterances are utterances consisting of a word or phrase from one language juxtaposed with a word or phrase from another language. Recent research in

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\* I would like to extend thanks to the Swarthmore College Department of Linguistics and the Swarthmore Class of 2010 Linguistics Majors for supporting me throughout this project. Grateful acknowledgement goes to my advisor, Vera Lee-Schoenfeld, for her motivation, encouragement, and indispensable depth of knowledge in the field. I also thank my second faculty reader K. David Harrison and my student reader Daniel Friel for their invaluable comments and corrections. Special thanks to all those individuals whom I met while I was in Denmark that inspired me to study this topic in depth.

bilingual language acquisition (Da Fontoura and Siegel (1995), Deuchar and Quay (1998), Hulk (2001), Paradis and Navarro (2003), Bernardini (2004), Paradis et al. (2008)) focuses on the developmental causes of these mixed utterances. The initial question regarding these mixed utterances is whether they indicate a “mixed” syntax resulting from a bilingual child’s storing of two languages within a single language system. Earlier research answered this question by agreeing that bilingual children begin language acquisition with a mixed language system for both the lexicon and syntax. However, more recent research maintains that bilingual children hold two initial systems and differentiate between them from an early age (Hulk, 2001). Beyond the debate of one language system or two, subtler details of the interactions of a bilingual child’s two developing languages are discussed in the literature. Specifically, academics examine the role of input in the development of the bilingual child’s lexicon. Input from the environment, the home, and the classroom all influence the growth of L1 and L2 in bilingual children. These findings have implications for educational planning.

In what follows, I will discuss the above mentioned academic literature regarding bilingual language acquisition as it relates to the Danish educational plan for Non-Ethnic Danish bilinguals of preschool age. My observations of the Danish educational system pertain to immersion programs Denmark has for bilingual Non-Ethnic Danish children, in which I held a position for five months. First, I will give a brief description of my observations at a preschool for Non-Ethnic Danish children and outline the goals of the institution. Next, I will enter a discussion of the academic literature relevant to my experiences in Denmark. My discussion of the “one language system or two” debate supports the argument in Hulk (2001) that bilingual children have two distinct developing

language systems at the time of acquisition. I argue that the acquisition of syntax for bilingual children is established as two separate systems, so mixed utterances are produced drawing from one of two underlying syntax systems, that of one of the two languages, regardless of the child's uttering a set of two words from two different languages. Next, I will analyze case studies that examine lexical input as it relates to bilingual language acquisition. According to the findings of these articles, the Danish educational system is an effective plan for the acquisition of Danish in these bilingual children.

### **1.0 The Situation of Non-Ethnic Danes**

Denmark was a homogeneous society until recently. Globalization has changed the people and culture of Denmark, especially in urban areas. Denmark's population of 5.47 million people is now composed of about six percent foreign-born residents, and approximately half of this group is Muslim (Kutter, 2008: 10). Currently there are about 170,000 Muslims in Denmark, most of them living in Copenhagen (Hegge, 2004: 47). These immigrants, labeled Non-Ethnic Danes, bring with them a more conservative culture with which the native-born Danes are unaccustomed, and multiculturalism is a key issue in Danish politics today. Antagonism towards these newcomers has been sharpened by the present political party in power, *Venstre*, a party on the more conservative side of Danish political spectrum. The *Venstre* party is currently in coalition with the Conservatives to discourage immigration, especially from the Middle East (Hegge, 2004: 47). The Danish government has recently introduced legislation to make it more difficult for foreigners to migrate (Hegge, 2004: 48). Immigration presents social

challenges to Denmark as these immigrants and their families attempt to integrate into the society. The Danish government is racing to solve issues behind educating their new citizens.

Among these efforts are language immersions schools for the children of immigrants. These children are Non-Ethnic Danes who are born in Denmark and are raised in a household that does not speak strong, if any, Danish. The largest immigrant groups are Turkish, Iranian and Somali. The Danish government funds certain educational institutions<sup>1</sup> for children of these cultural backgrounds where the children can acquire Danish in addition to being exposed to Danish culture. Children are enrolled by their parents in these tuition-free institutions that are staffed with Danish pedagogues. These schools implement Danish educational styles, celebrate Danish holidays, eat meals in a Danish manner, etc. Most pedagogues have Danish as their mother tongue and cannot converse with the children in the language of their parents. Infants through approximately age five can be enrolled in these schools. Since most of the children are at the age of acquisition, they are in an environment where they can develop bilingually with Danish as one of their two language systems. Once the children pass a government-regulated language test, they are mainstreamed into other Danish kindergartens. Mainstreaming usually occurs at about six years of age.

## **1.2 Language Attitudes in Denmark**

The Danish educational plans for Non-Ethnic Danes portray a lot about language attitudes in Denmark. I have witnessed certain indicators in the social environment of

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<sup>1</sup> Details of the specific preschools and school systems have been omitted to maintain confidentiality.

preschools for Non-Ethnic Danes, which have lead me to conclude that the famously tolerant people of Denmark are protective of their national language. This has lead many Danes to look down upon Non-Ethnic Danes' home language. The Danish people cherish their culture and feel threatened by the substantial Islamic immigration when they see a population of immigrants that do not hold the same definitions of freedom of expression or gender equality.

These feelings can be explained in situations I have observed in Non-Ethnic Danish preschools. Most mothers dropping off their children at Non-Ethnic Danish immersion preschools are dressed in traditional *hijab* head coverings and conservative dress. They struggle to speak with the staff because their Danish is so weak. The specific institution I observed had only a bilingual Danish-Turkish staff member. So in cases of a Turkish mother seeking to communicate in Turkish, the institution was able to facilitate a dialogue with their one staff member fluent in Turkish. However, I noted that the institution had a dire need for an Arabic-Danish bilingual staff member.

The staff's reaction to communication barriers with mothers varied. Often they respond to the mothers just as they do the children learning Danish. When a Non-Ethnic Danish mother uttered a Danish phrase incorrectly, the staff member corrected her. This often brought about social tension as the non-Danish speaker struggled to communicate with her child's caretaker. The caretaker's attitude varied from being understanding and helpful to being extremely impatient. Fathers were never present at the institution.

Preschool instructors actively discouraged the use of home languages in the classroom. Often two children who shared a home language would socialize in their home language. When these interactions took place, the instructors disrupted the

conversation – usually with a prompt like, “*Hvad siger du?*” (English: *What did you say?*) - to convert the dialogue to a Danish conversation. In this way, the institution prevented the children from forming groups based in the same home language.

Discouraging home language use could attach a negative attitude to a child’s home language. This could lead to negative feelings or embarrassment every time the child uses a home language at the preschool. In this way the policies of the language immersion institutions can change the child’s attitudes towards the home language.

It was also frequent that two children did not share a non-Danish home language. Attempts of these children to communicate in their home language failed, so they were forced to become friends with Danish alone. These friendships encouraged use of Danish without placing negative attitudes on the home language.

The policies immersion schools for Non-Ethnic Danes have regarding mixed utterances also discourages the use of home language, thereby conveying a negative feelings in the children about their home language. Mixed utterances occurred in dialogue between children or between children and a caretaker. Often mixed utterances in older toddlers would be because of a lack of Danish vocabulary. In this case, mixed utterances would be corrected with a prompt in Danish using gestures to communicate the correct word in Danish for the missing activity or noun in the child’s Danish lexicon. However, since the caretakers did not know the home language, the mixed utterance could not also be corrected and learned in the child’s home language. This could lead to the development of more vocabulary in Danish than in the child’s home language.

The above-mentioned observations indicate that Denmark has negative attitudes towards the languages of Muslim immigrants. These attitudes have affected both policies

in educational institutions and interpersonal relationships. The very existence of separate institutions for Non-Ethnic Danish children reinforces the attitudes of these children in a linguistic underclass.

I will now examine academic literature that relates to bilingual language acquisition to justify this trafficking of Non-Ethnic Danes into separate schools away from their monolingual peers. I will begin with a review of works pertaining to the bilingual child's storing of two languages.

## **2.0 Language Systems and Non-Ethnic Danish Bilinguals**

### **2.1 *Deushar and Quay (1998)***

Deushar and Quay (1998) sought to answer whether there exist two initial systems of syntax in the bilingual child or whether the existence of mixed utterances proves that there is only one system of syntax initially. They argue that mixed utterances “can be attributed to the limited lexical resources of a developing bilingual, and thus should not be used as evidence for a single system” (Deushar and Quay, 1998: 232). The article examines past studies of bilingual children and analyzes them according to the authors' hypothesis that there are two systems for both lexical entries and for syntax. They claim that bilingual children are pooling input from both languages. As for the general question about when syntax is acquired, the authors claim that once a child can form two-word utterances, those utterances contain a rudimentary syntax due to the innate hierarchical structures required to organize word order.

The case study of Deushar and Quay (1998) is based on data compiled from bilingual child M. Diary records were kept by the mother, a native speaker of British English, and video records were made twice weekly. The child's father acquired Latin American Spanish as his mother tongue. The mixed utterances recorded between the ages of 1;7 and 1;9 were taken to be a result of limited lexical resources rather than one initial syntactic system. Child M's Spanish and English vocabulary was charted to see if the child could have produced the mixed utterances in one language. Furthermore, the language context was analyzed to see if it influenced the word choices. If the child had an "equivalent" word in the recorded lexicon, the utterance should have been in one language instead of two. Results of the investigation revealed that the child was only using the words available to her. The exception to this analysis was the use of the equivalents *mas* (Spanish) and *more* (English). For an unknown reason, these quantifiers had a "non-language-specific" status for the child. In other words, the child has failed to label these terms as a member of one of their two language systems, so the words are applied when the child is using either of the two available language systems. Deushar and Quay maintain regardless of this exception that the mixed utterances were a result of a lack of an appropriate lexical entry for one language in the child's language systems.

After bilingual child M is two years old, Deuchar and Quay find confirmation of language-specific morphology since M's utterances at that point are clearly either English or Spanish. Final remarks of the paper conclude that, according to the data collected from bilingual child M, when mixed utterances occur they are a result of limited lexical resources rather than the existence of a single language system. Parallels between



Deuchar and Quay (1998) and Non-Ethnic Danish bilingual children will be discussed in Section 2.3.

## 2.2 *Hulk (2001)*

Hulk (2001) performs a case study of Anouk, a French-Dutch bilingual child, to examine whether bilingual children differentiate between their two language systems at either a syntactic or lexical level from early on. After a discussion of relevant literature, Hulk notices that mixed utterances may be a result of the bilingual child making short cuts, even when being able to differentiate between the two languages. The bilingual child has more syntactic possibilities than the monolingual child because both languages make available different heuristics with which to form utterances.

Hulk next performs a brief analysis of Dutch and French word order. Dutch is a Verb-Final language where word order follows (XP\_V). The following embedded Dutch sentence clearly illustrates this underlying word order.

(1) *Jan zegt dat hij een koekje wil*  
 John says that he a cookie(OBJ) wants(VERB)  
 John says that he wants a cookie.

(Hulk, 2001: 59)

In contrast, French is a verb-initial language with (V\_XP) word order, as seen with the following example.

(2) *Jean a mangé un gâteau*  
 John has eaten(VERB) a cookie(OBJ)  
 John has eaten a cookie.

(Hulk, 2001: 60)

Data was collected from a girl named Anouk in three different periods as her clause structure was being acquired. At first, Anouk shows no preference of word order in

French utterances. Later, three-word utterances in French have a Dutch (SOV) word order. This shows that French data from Anouk follows an incorrect (XP\_V) word order until the data collected in the last period of data collection where Anouk is the oldest at three years, ten months and seven days old. For children acquiring Verb-Final languages and, in rare cases, for children acquiring Verb-Initial languages, (XP\_V) structures are recorded.

Hulk makes the observation that (XP\_V) word order is more frequent among data from bilingual children acquiring a Verb-Initial language like French or English. Anouk's French differs from the French of monolingual children, and Hulk believes that it is due to crosslinguistic influences from Dutch. Hulk observes that a bilingual child getting input from both developing languages makes the situation more complicated than that of language acquisition for a monolingual child. Anouk produces French root infinitives at a high rate compared to monolingual French children. Hulk concludes that this phenomenon, as it is less present in monolingual French children than Anouk, may be analyzed as the indirect influence of Dutch, which has a lot of (OV) structures in root infinitives. Hulk finds that lexical input plays a crucial role in the syntactic level of bilingual children. Bilingual children have a more difficult time establishing syntactic heuristics than monolingual children because they are dealing with the input of two different systems of syntax. Anouk was exposed to specific examples of both French and Dutch that may have lead her to conclude that (XP\_V) orders or root infinitives may be used in French exactly like in Dutch.

### **2.3 Deuchar and Quay (1998), Hulk (2001), and Danish education**

Deuchar and Quay (1998) and Hulk (2001) illustrate that mixed utterances are results of two languages in two developing language systems interacting as the bilingual child develops. In the case of Non-Ethnic Danes, these two language systems are the language of the home and Danish, the language of their residency. Deuchar and Quay (1998) and Hulk (2001) demonstrate that mixed utterances in Non-Ethnic Danes are a result of the interaction of the Danish language system and the language system of their mother tongue. Non-Ethnic Danes are simultaneously acquiring two languages. Since the Danish educational system seeks to develop the Danish in these children, they must encourage development in competition with the development that comes naturally to the language system of the child's household.

Danish, like Dutch, as discussed by Hulk (2001), is a Germanic language and a “Verb Second (V2)” language. Example (3) illustrates the SVO word order.

(3) *Helge vil gerne læse den her bog.*  
 Helge(SUBJ) (will) readily(ADV) read(VERB) this here book(OBJ).  
 ‘Helge will readily read this book.’

(Vikner, 1995: 142)

While it is not inherently SOV, it has in common with Dutch that the finite verb in main clauses is always in second position, regardless of what is in sentence-initial position (the subject, the direct object, an adverbial expression, etc). When the subject is not in the sentence initial position, we have V – I – C movement.

(4) *Den her bog vil Helge gerne læse.*  
 This here book(D.O.) will(VERB) Helge(SUBJ.) readily read  
 ‘This book, Helge will readily read.’

(Vikner, 1995: 142)

Example (4) has V2 and is grammatical with the direct object in sentence-initial position.

(5) and (6) are ungrammatical when the verb does not come second.

- (5) *\*Den her bog Helge vil gerne læse.*  
 \*This here book(D.O.) Helge(SUBJ.) will(VERB) readily read.  
 ‘This book, Helge will readily read.’ (intended)  
 (Vikner, 1995: 142)
- (6) *\*Den her bog Helge gerne vil læse.*  
 \*This here book(D.O.) Helge(SUBJ.) readily will(VERB) read.  
 ‘This book, Helge readily will read.’ (intended)  
 (Vikner, 1995: 142)

This characteristic of Danish probably leads to word order inconsistencies in the two languages acquired by Non-Ethnic Danish children. The non-V2 order in a Non-Ethnic Danish child’s home language will be reflected in the child’s Danish syntax up to a certain age. At least this is what we expect given Hulk (2001)’s findings discussed in the pervious section.

Next I will look at literature relating to the environment’s impact on language development. Based on the assumption that Non-Ethnic Danes have two developing language systems, I question what elements encourage these systems’ establishment in bilingual children. This inquiry will establish what elements need to be available for Non-Ethnic Danish bilingual children in order for them to acquire Danish and their parents’ mother tongue equally.

### **3.0 Lexical Input and Danish Education**

#### **3.1 *Paradis and Navarro (2003)***

Crosslinguistic interference in mixed utterances at a syntactic level can be directly linked to a bilingual child’s input, according to a case study performed by Paradis and Navarro. The study focuses on input from both a bilingual child’s parents and educational environment in its analysis of subject realization. The authors predict that

crosslinguistic influence is likely to occur and manifest itself in their data from a Spanish-English bilingual child. However, they also find evidence that crosslinguistic effects may be a result of input rather than internal interactions between the two developing languages. Paradis and Navarro seek to show that crosslinguistic influence is a “controlled and systematic phenomenon” (Paradis and Navarro, 2003: 372).

The authors point out that the bilingual children studied have one bilingual parent, and the input received from each parent is worth considering. The children may be receiving uneven amounts of each developing language since many parents do not strictly adhere to the “one-parent one-language” rule. These factors make language development much different for bilingual children than their monolingual peers, the authors point out. To more closely examine the effect of input, Paradis and Navarro examine parental discourse and compare it with the child’s output.

The paper examines three children, two monolingual Spanish and one bilingual Spanish-English, and their parents to observe the frequency of overt subjects. Spanish is a pro-drop language, which means that it allows the dropping of an overt subject. However, English is not a pro-drop language. The authors predict that the use of overt subjects will be more frequent in a Spanish-English bilingual child than a monolingual Spanish child. Recorded subjects in utterances were categorized and charted. The bilingual child did not have as firm a grasp on the syntax of overt subjects in Spanish compared to the monolingual children at age 1;9 or 2;0. However, patterns of the bilingual child’s learning are equal to the monolingual children by age 2;6. Paradis and Navarro observe that the quantity and type of overt subjects that the bilingual child was exposed to are distinct from the other monolingual children. They conclude that

crosslinguistic effects occur in bilingual acquisition at the syntactic and pragmatic level, though they point out that all bilingual children may not show these effects. The connection between input and output is consistent and apparent with the bilingual child's language production. There is convincing evidence, then, that when investigating crosslinguistic interference in bilingual acquisition, the potential impact of the child's input should be considered.

Paradis and Navarro's paper argues that bilingual children have a unique profile compared to monolingual children. Their input results in a special rate of language development that caused the child in their study to lag behind in certain areas of syntactic development, but then perform equally in areas of syntax by 2;6.

### ***3.2 Paradis et al. 2008***

This paper starts with a discussion of the effect of input on bilingual language acquisition. Changes in family structure, childcare, formal education, or residence shift the amount of exposure children receive in their mother tongues. The authors state that recent research has proved that bilinguals have slower morphosyntactic development than monolinguals during preschool and early elementary school years (Gathercole, 2007; Nicoladis et al., 2007; Paradis et al., 2007; Pérez-Leroux et al., in press; Thoradardottir, Rothenberg, Rivard & Naves, 2006), but this difference decreases or disappears when comparing monolinguals with the bilingual children's stronger or dominant language. In other words, bilinguals' development is slower only in the non-dominant, weaker language and development is only slightly slower if not equal in the dominant, stronger language. According to the constructivist model of bilingual acquisition (Gathercole,

2007), lexical items are stored morphemically in schemas that are language-specific. The acquisition of these language-specific schemas is based on input frequency, making the bilingual child extra sensitive to new lexical items until their morphological schemas reach full productivity. The language that the bilingual child has the greatest exposure to, on a constructivist account, is acquired faster. Specifically, the inflectional morphology (the grammatical, rather than the lexical components of words) of the more-exposed language develops faster. As a result of one language developing faster than the other, constructivists assume that through bilingual bootstrapping, syntax of the dominant language could be carried over to the less-developed language until the two languages are balanced later on in the development process.

These theories raise questions about whether there are production and grammatical results of this bootstrapping. Specifically, Paradis et al. 2008 ask whether bilingual and monolingual children can perform similarly on syntax tests when comparing the monolinguals to the bilinguals' stronger language. Paradis et al. 2008 performed a test on forty-four French-English bilingual children. The bilingual children were assigned to an English-dominant or French-dominant group based on standardized test scores. Scores from monolingual English-speaking children were used for comparison. Two tests were given. The first was a series of pictures to prompt the children to speak sentences in the present tense. The second test was a series of grammaticality judgment tests where the children judged whether a sentence was "right" or "not so good". Comparison of these scores was made with respect to the performance of monolinguals.

The results of the two tests can be explained based on constructivist theories (Gathercole, 2007; Paradis et al., 2007). Overall, scores from tests in the bilingual children's non-dominant language were lower than the monolingual children. However, bilingual children performed closer to their monolingual classmates in grammaticality judgment tests conducted in their non-dominant language rather than the production test with the pictures conducted in their non-dominant language. The authors found that differences between bilinguals and monolinguals were non-existent within the tested age group in the bilingual's dominant language. The authors say that it is not accurate that bilinguals lag behind monolinguals in development, but instead have a unique profile of development.

### **3.3 Bernardini (2004)**

Bernardini seeks to study the asymmetrical development of the two languages of a bilingual child. The bilingual child has uneven development causing the dominant language to be used even in situations where the non-dominant language would be expected. The author defines mixed utterances as the dominant language combined with lexical elements from the non-dominant language. Bernardini's definition takes into account frequency of input in bilingual development. Her paper reviews two hypotheses already existing in literature relating to *code mixing*, which is the transmission of linguistic elements from one language to another. First discussed is The Dominant Language Hypothesis, as defined by previous studies (Petersen, 1998; Lanza, 1997a). It proposes that, in child bilingualism, functional elements from the stronger language are used to supplement the non-dominant language. The hypothesis accounts for code-



mixing patterns in children after the age of central syntax acquisition (around the age 3;2). The second hypothesis, formulated by Gawlitzek-Maiwald and Tracy (1996), is called The Bilingual Bootstrapping Hypothesis. It states that mixed utterances result from the weaker language profiting from the faster developing one. These two similar hypotheses were from papers that served as important sources for Bernardini (2004).

Bernardini performs three case studies on three different children with clearly unbalanced bilingualism. All three children live in Sweden, and the unbalanced language development is clearly a result of input. Each child went through a series of interviews. The interviewer, speaking to the child in one of the child's two developing languages, was supposed to yield responses from the child in the same language the interviewer was using. Data from the recorded interactions were analyzed. The results showed that vocabulary from the weaker language was poorer than in the stronger language. The author concluded that components from the stronger language replaced missing lexical entries in the weaker language. The children used code mixing to fill gaps in their lexicon. When mixed utterances occurred, they followed a trend of growth of constituent complexity. Nouns were mastered first, then NPs, and finally VPs. Thus, the mixed utterances gradually grew in complexity in the order  $\{N > NP > VP\}$ . Less developed syntactic structure in the weaker language can be accounted for when considering the child's exposure to the language, which results from amount of input. The amount of time the child is exposed to a particular language versus another causes a stronger or weaker developed syntax in one language over another, depending on which language the child received more exposure to.

### 3.4 Lexical Input and the Danish Educational System

Paradis and Navarro (2003), Paradis et al. (2008), and Bernardini (2004) show that lexical input determines the rate of language development in bilingual children. The unique pace of development identified in Paradis and Navarro could be a reason for giving bilingual children a special form of early education like the program I observed in Denmark. If bilingual Non-Ethnic Danes develop in a unique way compared to their monolingual peers, it could be argued that they deserve a unique education tailored to their needs as a bilingual child. If there is a period of lag in development among bilinguals compared to monolinguals, as Paradis and Navarro predict, perhaps it is better for these children to receive an education that fosters their language acquisition without pushing them to develop at the same rate as monolinguals. This is exactly what the Danish educational system achieves with the separating of Non-Ethnic Danish bilinguals until a certain level of lingual development.

Paradis et al. concluded that bilingual children's lexical input is stored in two language systems. As the lexical input is stored, the systems develop. The rate at which input is received establishes the rate at which the two systems develop. So the more input a bilingual child receives in one language, the faster that language system develops. As a result, the systems develop at different rates that cause bilingual children to perform below monolingual children on certain grammar tests. Bernardini's findings were similar to those of Paradis. Bernardini found that gaps in one lexical system were filled with code mixing and bootstrapping, resulting in mixed utterances, until the child receives lexical input to fill out the weaker language. These two papers confirm that bilingual children develop differently than monolingual children, causing them to perform at a

lesser rate in grammar assessments due to the greater amount of input required to develop their two language systems. I propose that separating bilinguals, as the Danish educational system does, could avoid tension and pressure placed on bilinguals to perform as equals to monolinguals before their systems are developed. Additionally, Non-Ethnic Danish bilinguals are not getting exposure to Danish in the home, so they need more exposure to Danish than other monolingual children receiving Danish in the home to have an equal amount of lexical input as the monolinguals. A segregated school like the one I observed in Denmark realizes this difference in development.

Segregation of bilinguals and monolinguals, I propose, should be as in the Danish system where bilinguals are mainstreamed at a certain level of language achievement averaging around age six. However, I would like to note two things. First, the children in the Danish system I observed will eventually get more Danish than their home-language due to school and peer-interaction. This may lead to rejection of their home-language and therefore the loss of their home-culture and even a part of their identity (See Harrison 2007). Second, Denmark has a strong cultural identity that most Danes believe is threatened by immigrants. This leads to a general grouping of Non-Ethnic Danes in a lower social ranking than ethnic Danes, which automatically attaches negative social implications with the languages of foreigners. Evidence of this negative attitude is vocabulary like *perker dansk*, the derogatory term given for Danish spoken with a distinctly foreign accent (Hegge, 2004: 50). These factors could lead to the eventual rejection of the home-language by Non-Ethnic Danish children. However, the home-language of Non-Ethnic Danes in most cases has a larger population of speakers than Danish in a global perspective. This is one of many reasons why the maintenance of

Non-Ethnic Danes' home-language is beneficial. Sociologists claim that serious problems lay down the road for the Scandinavian countries that have created an ethnic underclass (Hegge, 2004: 50). The language attitudes of Denmark hold much relevance in the current political atmosphere of the country, and it is a topic that should be investigated in further research.

This section has just discussed developmental reasons behind the success of a separate education for bilingual children at an early age. If these findings hold weight, and we are not worried about sociological factors concerning loss of the home-language, then why then not educate bilingual children separately from monolingual children for all of lower education? The following discussion of a case study shows that special programs are not required later in education.

### ***3.5 Da Fontoura and Siegel (1995)***

Da Fontoura and Siegel seek to answer the question if bilingual children perform equally to monolingual children in a formal educational atmosphere. They examined the performance of thirty-seven Portuguese-Canadian children ages nine to twelve on reading, language, and working memory tasks in English and Portuguese. The sample group had formal education in English, but Portuguese was spoken at home. The children were seen individually in three sessions and the scores were charted. Reading, language, and memory skills were highly correlated in both English and Portuguese. The bilingual children with below average reading skills performed worse on oral tasks than the monolingual children. Da Fontoura and Siegel note that the results are similar to the effects of a French Immersion program. All of the reading and language skills were

equivalent to monolingual children, and bilingualism appears to have no adverse effects on learning. However, the Portuguese-English bilingual normal readers did perform worse on tests of syntactic skills. Da Fontoura and Siegel claim that this has to do with the bilingual children having less exposure to complex English syntax, due to the fact that their parents were monolingual Portuguese. The authors conclude that bilingualism does not impede the development of the skill tasks performed.

This study shows that bilinguals perform equally with monolinguals on certain tests at ages nine through twelve. Since the children perform equally, there is no reason to modify the education of bilinguals during late childhood. Based on these findings, I argue that the age of mainstreaming Non-Ethnic Danish bilinguals in the Danish educational system is appropriate once the lexicon of both language systems has been developed to a certain degree that allows for equal performance on tests.

#### **4.0 Closing Remarks**

I have discussed how certain characteristics of bilingual acquisition separate bilingual children from monolingual children in terms of their development. The establishing of two language systems from the initial stages of language acquisition requires ample exposure to both languages because the lexicon is built by storing lexical input according to the child's exposure to language. In order to develop both lexicons, bilingual children require a greater amount of lexical input than their monolingual peers because they are acquiring two languages rather than one. This need gives bilingual children a "unique profile of development," namely that they need more time at a certain early stage of acquisition to gather input to gain them equal command of their two native

languages. Until enough input is received in both languages, bilingual children use their more dominant language to compensate for the lack of input in the weaker language.

Compensation takes the form of mixed utterances among bilingual children.

In the case of Non-Ethnic Danish bilinguals of preschool age, input from non-Danish speaking parents develops the household language more than Danish. Based on evidence of the effect of input in language development, the language of formal education can aid in the development of Danish for these bilingual children. Placing Non-Ethnic Danish bilingual children in Danish language immersion preschools gives them the exposure required to develop Danish as one of their two systems of language. This educational plan has benefits for the children at an early age because it recognizes the unique language acquisition process of bilinguals. Ideally, teachers implementing this educational plan would be aware of underlying syntactic differences of their students' two developing languages to aid the development of both languages. By offering an alternative education that separates bilingual children from monolingual children, the Danish government relieves bilingual children of the pressure to perform at the level of monolingual Danish speaking children until the two language systems have had the opportunity to reach the same level of development.

## Works Cited

- Bernardini, Petra. "Growing Syntactic Structure and Code-Mixing in the Weaker Language: The Ivy Hypothesis." *Bilingualism, Language, and Cognition*. 7, 1. (2004): 49-69.
- Da Fontoura, Helena A., and Linda S. Siegel. "Reading, Syntactic, and Working Memory Skills of Bilingual Portuguese-English Canadian Children." *Reading and Writing: An Interdisciplinary Journal*. Vol 7. (1995): 139-53.
- Deuchar, Margaret. "One Vs. Two Systems in Early Bilingual Syntax; Two Versions of the Question." *Bilingualism: Language and Cognition*. 1, 3. (1998): 231-43.
- Dictionary of Linguistics and Phonetics*. Oxford: Blackwell Publishers, 2003. *Credo Reference*. Web. 11 November 2009.
- Harrison, K. David. *When Languages Die: The Extinction of the World's Languages and the Erosion of Human Knowledge*. New York: Oxford University Press, 2007.
- Hegge, Per Egil. "The Immigrants Are Coming!" *Scandinavian Review*. 92, 1. (2004): 47-51.
- Hulk, Aafke. "Non-Selective Access and Activation in Child Bilingualism." *Cross-Linguistic Structures in Simultaneous Bilinguals*. Philadelphia: John Benjamins Publishing Company, (2001).
- Kuttner, Robert. "The Copenhagen Consensus." *Foreign Affairs*. 87, 2. (2008): 1-18. <[www.foreignaffairs.org](http://www.foreignaffairs.org)>.
- Paradis, Johanne, and Samuel Navarro. "Subject Realization and Crosslinguistic Interference in the Bilingual Acquisition of Spanish and English: What Is the Role of the Input?" *Journal of Child Language*. Vol 30. (2003): 371-93.
- Paradis, Johanne, Antoine Tremblay, and Martha Crago. "Bilingual Children's Acquisition of English Inflection: The Role of Language Dominance and Task Type." *Boston University Conference on Language Development*. (2008): 1-11.
- Vikner, Steve. *Verb Movement and Expletive Subjects in the Germanic Languages*. New York: Oxford University Press, 1995.