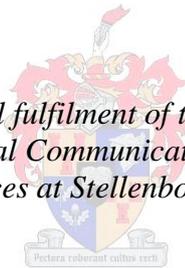


Frequency and Function of Codeswitching among German–English Bilingual Preschool Children in Cape Town

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Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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Abstract

The study reported on in this thesis focuses on six English-German bilingual preschool children in Cape Town. The thesis is interested in understanding the relation between codeswitching (the frequency, type and function thereof) in bilingual children and the duration of exposure that they have had to each of their languages.

During the course of my training as a teacher, I have noticed differences in the codeswitching behaviour of different bilingual children. Most children seemed to switch between their two languages effortlessly. However, some children seemed to switch between codes more often than others, which may be a consequence of the duration of language exposure. It is therefore possible that bilingual children with different language backgrounds show differences in the frequency, type and function of their codeswitching behaviour.

This thesis aims to investigate (i) the amount of codeswitching that is employed by bilingual children with different language backgrounds, (ii) the type of codeswitching that bilingual children employ and (iii) the function of the use of codeswitching by these children.

The participants of the study were 5- and 6-year-olds who attend the German preschool in Cape Town, which is a predominantly German-speaking institution. Children who attend the school have a range of different proficiency levels in German and in English; they have acquired the two languages either simultaneously or successively.

The language background, namely the duration of language exposure to both languages, was analysed with the help of parental questionnaires. In addition, the children themselves were asked to visually represent a biographic image of their language proficiency and their language preferences by colouring in a basic outline of a human body. By means of this analysis, the participants were categorised according to their type of bilingual acquisition and the input they receive at home and in other environments. In order to investigate whether children of different language types show differences in the frequency, type and function of their codeswitching behaviour, codeswitching behaviour in both formal and informal settings were audio

recorded. The recordings were transcribed and annotated for frequency of switches. All instances of codeswitching found in the data were then classified based on the differentiation between intersentential codeswitching and intrasentential (including intraword) codeswitching.

The qualitative analysis of the data was carried out in terms of Poplack's (1980) grammatical constraints. The codeswitches that were found in the data were further analysed according to the function of their use. The findings of the analysis were then categorised in relation to the type of bilingual exposure of the individual participants.

The results have shown that there is indeed a difference in the codeswitching behaviour of children with different language backgrounds. Participants who have had less German input switched more often to their dominant language, namely English, than participants who have been exposed to equal input in both languages or those who speak German as mother tongue. Data analysis further showed that successive bilinguals not only switch more frequently but also make use of codeswitching (rather than other discourse strategies) in order to fill lexical gaps.

Opsomming

Die studie waaroor daar in hierdie tesis verslag gelewer word, fokus op ses Engels-Duits tweetalige voorskoolse kinders in Kaapstad. In die tesis wou daar vasgestel word wat die verhouding is tussen kodewisseling (die frekwensie, tipe en funksie daarvan) in tweetalige kinders en die duur van die blootstelling wat hulle aan elk van hulle tale gehad het.

Tydens my onderwysopleiding het ek opgelet dat daar verskille bestaan in die kodewisselingsgedrag van verskillende tweetalige kinders. Die meeste kinders blyk moeiteeloos tussen hul twee tale te wissel. Sommige kinders blyk egter meer dikwels as ander tussen die tale te wissel, wat 'n gevolg mag wees van die duur van taalblootstelling. Dit is daarom moontlik dat tweetalige kinders van verskillende taalagtergronde verskille toon in die frekwensie, tipe en funksie van hul kodewisselingsgedrag.

Die doel van die tesis was om die volgende te ondersoek: (i) die hoeveelheid kodewisseling wat deur tweetalige kinders van verskillende taalagtergronde gebruik word, (ii) die tipe kodewisseling waarvan deelnemers gebruik maak, en (iii) die funksie van die gebruik van kodewisseling deur hierdie kinders.

Die deelnemers aan die studie was 5- en 6-jariges wat 'n Duitse kleuterskool in Kaapstad bygewoon het. Die skool is 'n oorwegend Duitssprekende instelling. Kinders wat die skool bywoon, toon 'n wye reeks vaardigheidsvlakke in Duits en in Engels; hulle het die twee tale óf gelyktydig óf opeenvolgend verwerf.

Die taalagtergrond, naamlik die duur van blootstelling aan beide tale, is met behulp van 'n ouervraelys geanaliseer. Die kinders self is gevra om 'n biografiese beeld van hulle taalvaardighede en taalvoorkeure visueel voor te stel deur die buitelyne van 'n menslike liggaam in te kleur. Deur hierdie analise is deelnemers geklassifiseer volgens die tipe tweetalige verwerwing en die toevoer wat hulle tuis en in ander omgewings ontvang het. Om vas te stel of kinders van verskillende taalverwerwingstipes verskille toon in die frekwensie, tipe en funksie van hul kodewisselingsgedrag, is daar klankopnames gemaak van kodewisselingsgedrag in beide formele en informele situasies. Die opnames is getranskribeer en geannoteer

vir frekwensie van wisselings. Alle gevalle van kodewisseling wat in die data aangetref is, is dan geklassifiseer op grond van die onderskeid tussen intersentensiële kodewisseling en intrasentensiële (en intrawoord-) kodewisseling.

Die kwalitatiewe analise van die data is uitgevoer in terme van Poplack (1980) se grammatikale beperkinge. Die kodewisselings wat in die data gevind is, is verder geanaliseer volgens die funksie van hul gebruik. Die bevindinge van die analise is toe vergelyk met die tipe tweetalige blootstelling van die individuele deelnemers.

Die resultate het getoon dat daar inderdaad 'n verskil in die kodewisselingsgedrag van kinders met verskillende taalblootstellingsagtergronde is. Deelnemers wat minder Duitse toevoer gehad het, het meer dikwels na hul dominante taal (naamlik Engels) gewissel as deelnemers wat ewe veel blootstelling aan albei tale ontvang het of Duits as moedertaal praat. Data-analise het verder aangetoon dat opeenvolgende tweetaliges nie net meer dikwels kodewissel nie maar ook gebruik maak van kodewisseling (eerder as van 'n ander diskoersstrategie) om leksikale gapings te vul.

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Chapter 1: Introduction

1.1. Background to the study

In an increasingly globalised world, the interest in the study of bilingualism has steadily grown. Since the 1960s, research has shown that being bilingual holds cognitive, educational and social advantages (Peal and Lambert 1962). As a result, a fundamental change was brought about in the educational sector, and bilingual education has become more popular over the last couple of decades. During my under- as well as postgraduate university training, the focus was on bilingual education. How one acquires a second language, and what this would mean for me and my chosen profession as a teacher, was the main theme during the course of my studies. Thus, for me, codeswitching as a result and phenomenon of bilingualism has always been an interesting area to look at in my professional capacity.

The study of codeswitching – defined as “the alternation of two languages within a single discourse, sentence or constituent” (Poplack 1980:584) – has produced interesting findings in the past 25 years. Codeswitching is one of various linguistic phenomena that results from bilingual conversations. It was long assumed that codeswitching was the result of a lack of language competence in one of the languages. However, Gumperz (1976) found that speakers of more than one language follow certain patterns that allow them to switch between their two languages. These findings, along with other research observations, have shown that the use of mixed utterances is not a sign of a lack of language proficiency; rather, codeswitching requires a command of functional and grammatical principles and depends on the experience a speaker has in using the two languages (Meisel 1994a:436). However, little is still known about codeswitching in young children who are raised bilingually.

While I was teaching at a primary school in Germany for the past year and a half, where over 50% did not speak German as their mother tongue, I noticed that most children switched between their two languages effortlessly. However, some children seemed to switch between codes more often than others. Based on my experience with bilingual school children, I propose the hypothesis that children who are exposed to

both languages at home and have been exposed to both languages from the very beginning (i.e., simultaneous bilinguals) demonstrate more codeswitching than children who are and have been exposed to only one language in their home environment while interacting in a second language in an educational setting only (i.e., successive bilinguals). An alternative hypothesis would be that simultaneous bilinguals show less codeswitching than successive bilinguals.

There may also be a difference in the type of codeswitching that successive vs. simultaneous bilingual children employ. Hence, this thesis attempts to develop an understanding of the relation between codeswitching (the frequency and type thereof) and the length of exposure that children who grow up bilingually have had to each of their languages. The study was conducted in a German kindergarten in Cape Town that accommodates German–English bilingual preschool children from different language backgrounds. The aim of the study was to look at the amount of codeswitching that occurs and to identify the types as well as the functions of codeswitching in relation to the children’s language backgrounds. The study thus considered the use of codeswitching between English and German by children in the classroom.

1.2. Statement of the problem

In the first three years of age, children acquire languages implicitly in a natural way. In bilingual language acquisition, this occurs either simultaneously (learning two languages at the same time) or successively (another language is learned, but usually after the age of three when a first language has already been established) (Myers-Scotton 2006:326). Research has shown that learning two languages requires and builds cognitive skills and flexibility (Cummins 1976:37). However, in most cases of bilingualism, one has not been equally exposed to the languages in one’s repertoire, which means that one language is dominant. Consequently, bilinguals do not use their two languages in the same situations or with the same frequency (Myers-Scotton 2006:3). This study identifies codeswitching situations of young children while engaged in school activities, as well as codeswitching situations between them and their peer group. The codeswitches were analysed in terms of type, function and frequency, and the volume of switches were compared to participants’ language

backgrounds in order to see whether type and duration of exposure to the two languages influences codeswitching behaviour.

1.3. Research question

The study attempts to answer the following research question: Does the language background of English–German bilingual preschoolers influence the frequency and type of their codeswitching?

1.4. Methodology

Data was collected from six 5- to 6-year-old children in a German-medium kindergarten in Cape Town that, in principle, accepts children from all language backgrounds. The children in the school differ in terms of the language(s) to which they are exposed at home.

After obtaining the necessary consent from the principal, parents and participants, four types of data were collected: (i) background information on the participants' language exposure and use by means of a parental questionnaire, (ii) self-reported language profiles of the participants by means of a language biography, (iii) audio-recorded picture-assisted storytelling, and (iv) recordings of spontaneous language use by the participants in unstructured school settings. The questionnaires and the drawings were collected to establish a language profile of the participating children and to provide background information on each participant. The audio-recorded data of the children was transcribed, and instances of codeswitching were analysed qualitatively by using Poplack's (1980) grammatical constraints,¹ and were further evaluated in terms of type and function. The recorded data was also analysed quantitatively by annotating them for frequency of codeswitching. The findings of these analyses were then related to the type of bilingual exposure of the individual participants in order to answer the research question. The results of the recordings formed the major part of my thesis and were used to indicate, in the end, whether

¹ As will be shown in chapter 3, the initial plan was to analyse data according to Myers-Scotton's (1993) model. However, as the matrix language (ML) in all of the instances of codeswitching (apart from one exception) was German, this was not the most sensible analysis. Poplack's (1980) constraints were considered instead as there is no differentiation between the two languages.

there was a difference in type and frequency of codeswitching in each of the participants.

1.5. Thesis outline

Following the introduction, chapter 2 provides an overview over the fields of bilingualism, bilingual first language acquisition and codeswitching, and provides a discussion of relevant concepts pertaining to these fields. The chapter includes a presentation of selected research on bilingualism and codeswitching. In addition, this chapter introduces the different types of bilingualism in childhood. The chapter further focuses on the study of codeswitching, its types, grammatical aspects and functions in order to provide a theoretical framework for the data analysis. Specific published research on codeswitching, which contributes to the analysis of the data in this study, will be reviewed.

Chapter 3 presents the chosen methodology. The chapter introduces the data collection procedures and the instruments that were used to collect data, and further provides a detailed description of the data analysis procedure.

Chapter 4 presents the current study on codeswitching among six English–German bilingual preschool children in Cape Town. The chapter contains the analysis of the data for this study. The codeswitches for each language pair are annotated for frequency and are further classified according to the type of codeswitching that occurred. Secondly, the codeswitches are analysed qualitatively in terms of Poplack's (1980) grammatical constraints, set out in chapter 2, as well as in terms of the function of their use. They are further put in relation to the duration of the participants' language exposure so that comparisons can be made between the participants of different language backgrounds.

Finally, chapter 5 puts forward a summary of the findings and entails an overview of the conclusions drawn from the data. Possible questions regarding these conclusions will be raised, and suggestions regarding further research in this field will be made.

1.6. Definition of key terms

Throughout this thesis, the key terms listed below will be used frequently. Some of these terms can be defined in several (often diverse) manners; I indicate the definition used in the present study. The key terms are arranged in alphabetical order and are defined according to their use in this thesis. The definitions draw heavily on those found in Wei (2000:6ff.), Kroll and De Groot (2009) and Robinson (2013). Where definitions have been acquired from other sources, the references are given accordingly.

Bound morphemes: morphemes that cannot stand alone and are attached to other morphemes.

Balanced bilinguals: bilinguals who show equal proficiency and ability in both their languages.

BFLA (Bilingual First Language Acquisition): also called “bilingualism as first language” or “simultaneous bilingualism”; see the definition of “simultaneous bilinguals” below.

Codes: also referred to as “languages”. The terms are used interchangeably.

Codeswitching/codemixing (used interchangeably): the alternation of two languages within a single discourse, sentence or constituent, serving a particular function or purpose (Poplack 1980).

Critical age: the age, at which language acquisition is largely complete, usually regarded as 3-6 years of age.

Dominant bilinguals: bilinguals who are more proficient in one of their languages than in the other.

Dominant language: the more developed or preferred language of bilinguals. For the purpose of this thesis, however, it is the language that the participants prefer and use more frequently in a variety of settings.

Early bilinguals: bilinguals who achieve bilingualism in early childhood, usually at or before 3 years.

Embedded Language (EL): the less developed language of a bilingual, embedded into the structure of the Matrix Language.

Free morphemes: morphemes that can stand alone as a word.

Head: a word in a phrase that determines the syntactic type of such a phrase.

Interference: native (or first) language grammar or pronunciation transferred into the use of the second language.

Intersentential codeswitching: codeswitching between sentences, as in (1), where the German is in uppercase and the English in lowercase:

(1) *Are you going to the concert? DENN ICH KANN MICH NICHT ENTSCHIEDEN.*

Because I can myself not decide

[= because I cannot make up my mind.]

Intraword codeswitching: codeswitching within a single word, as in (2):

(2) *ER HAT DIE KATZE GEstroke.*

he has the cat past-participial-morpheme.stroke

[= He stroked the cat.]

Intrasentential codeswitching: codeswitching within a sentence or clause and at sentence or clause boundaries, as in (3):

(3) *I know that ER DAS GEWESEN IST.*

I know that he that was is

[= I know that it was him.]

Language type: refers to the type of bilingual acquisition in childhood based on Romaine's (1995) classification.

Late bilinguals: bilinguals who acquire a second language later than childhood.

Limited/partial bilinguals: bilinguals who have limited proficiency in one or both of their languages. (Note that this term does not refer to young children who are still in the process of acquiring language.)

Matrix Language (ML): the dominant language that provides the morphosyntactic frame (Myers-Scotton 1993).

Matrix Language Frame Model (MLFM): a model proposed by Myers-Scotton (1993) to show constraints on intrasentential codeswitching.

Mother tongue/native language/first language (L1): the language that children are fully exposed to and acquire from birth. I acknowledge that using these three terms as synonyms are contested by some, and therefore use “mother tongue” only in this thesis.

Non-dominant language: the language that is not shared with the community (Romaine 1995).

Non-situational codeswitching: codeswitching that is internally conditioned and thus not triggered by contextual factors (Weinreich 1953/1968).

Productive bilinguals: bilinguals who show proficiency in receptive and productive language skills of their languages.

Receptive bilinguals: bilinguals who show proficiency in receptive skills of their languages only.

Simultaneous bilinguals: bilinguals who acquire both languages simultaneously, usually seen as bilinguals who are exposed to both their languages by the time they turn 3 years (Genesee, Hamers, Lambert, Mononen, Seitz and Starck 1978); see “early bilinguals”.

Situational codeswitching: codeswitching that is externally conditioned (Weinreich 1953/1968).

Successive bilinguals: bilinguals who learn one language later than the other, usually after the age of 3 years (Genesee et al. 1978); see “late bilinguals”.

Trigger points: the points in a discourse at which codeswitching may occur.

Chapter 2: Theoretical Background

2.1. Introduction

To understand the phenomenon of codeswitching, it is necessary to provide an overview of the fields that are related to the development of the study thereof. Hence, this chapter introduces the concepts referred to in this thesis and provides the information necessary to understand the core issues in this field of study. It will further be stipulated how terms pertaining to codeswitching are used for the purpose of this thesis.

Firstly, this chapter defines what bilingualism is. This definition will help to specify the context in which codeswitching evolves. Furthermore, the field of bilingual first language acquisition will be introduced and the types of bilingual acquisition in childhood will be presented, as well as factors that influence bilingualism. Secondly, a definition of codeswitching will be given so that the phenomenon can be differentiated from other types of simultaneous use of two or more languages and so that types of codeswitching that occur in the collected data can be identified. In addition, this chapter provides a brief overview of grammatical aspects of codeswitching followed by a presentation of Myers-Scotton's (1993) Matrix Language Frame Model. Finally, existing research findings of studies on codeswitching will be outlined in order to analyse reasons for and functions of codeswitching.

2.2. Bilingualism

Describing bilingualism is not as easy as it may seem. Various publications across many different disciplines have defined the term for their own use. As a result, there is no formally agreed-upon definition of bilingualism among researchers (Wei 2000).

The word "bilingual" originates from the Latin words *bi* meaning "two" and *lingua*, which literally means "tongue" or "speech".² Hence, "bilingual" describes a person

² See Oxford Latin dictionary (Glare 2012) for further explanation.

who is able to speak two languages. However, bilingualism is seen as a language contact phenomenon and specifically as the result of contact between speakers of different languages (Myers-Scotton 2006:45). Consequently, some scholars have used the term to refer to the possession of two and sometimes even more languages.

As mentioned above, there are many ways to define “bilingualism”. Maximalists like Bloomfield (1933:56) refer to bilingualism as the “native-like control of two languages” (Bloomfield 1933:56). Other scholars, like Haugen (1952), consider people as bilinguals as long as they are able to transfer meaning by producing short utterances in another language. MacNamara (1967) suggests that a bilingual is anyone who shows a minimal competence in two languages in any of the four language skills, namely listening, speaking, reading and writing.

Bloomfield’s definition is problematic. Myers-Scotton (2006:39) emphasises that the proficiency in speaking another language cannot serve as a criterion for who is bilingual and who is not. The difficulty occurs in what it means to be proficient and in who decides whether or not someone is proficient. Language proficiency is hard to measure, mainly because language consists of different systems such as phonology, morphology, syntax and the lexicon (Myers-Scotton 2006:39). If one compares monolingual speakers of equal intelligence, they show equal competence in the phonology, morphology and the syntax of their language even if the number of words they draw from (i.e., the size of their lexicon) varies (Myers-Scotton 2006:39). A bilingual speaker, by contrast, may be dominant in one of the languages, and, thus, does not have equal skills in both of his/her languages. This is especially true for phonological skills; some bilinguals may speak the language fluently but do not master the sound system of that language (Myers-Scotton 2006:39). Researchers have come to the conclusion that the ability to speak both languages equally, and, thus, to gain native-like control of both languages, is in fact rare (Grosjean 1982). Therefore, bilingualism has been defined in terms of categories to include different stages of proficiency in both languages, so as to consider varying degrees of proficiency and therefore various degrees of bilingualism. This differentiation has led to more appropriate terms for describing bilingualism.

For the purpose of this thesis, I will use the term “bilingualism” to refer broadly to “the ability to use two languages”. I will, however, make use of Romaine’s (1995)

distinction between “balanced bilinguals”, referring to equal competence in both languages, and “dominant bilinguals” who are more proficient in one of their languages than in the other and who show preference in using this one language accordingly. For the purpose of this thesis, I will further adapt Genesee et al.’s (1978) distinction between “simultaneous bilinguals”, referring to bilingual speakers who acquire both languages at the same time, and “successive bilinguals” who acquire one language later than the other. For reasons of space, further subcategories of bilingualism are not presented here. (For a full list of terms, see e.g. Wei 2000:6ff.)

Since the definition of bilingualism is highly dependent on the historical, cultural, political, economic, environmental, psychological, social or linguistic point of view from which it is discussed, research on bilingualism has been undertaken across a wide range of disciplines, and has been seen as a manifestation of language contact. Until early reports on bilingual language acquisition were published by Ronjat (1913) and Leopold (1939), it was believed that speakers of two languages were intellectually disadvantaged. Early research on bilingualism in relation to cognition found that monolinguals scored higher on intelligence tests in comparison to bilinguals (Wei 2000:18). Saer (1924) was among the first scholars to test monolingual children in comparison to bilingual children, the latter being Welsh-English bilinguals. His study revealed a 10-point difference between the monolingual and the bilingual children in terms of intelligence quotient (Wei 2000:19), with the monolinguals faring better than the bilinguals. These studies were later criticised in terms of methodology and conclusions and such criticism has, over time, brought about a fundamental change in attitudes towards bilingualism.

Since the 1960s, research on the effects of bilingualism has increased and it has been found that being bilingual in fact holds cognitive, educational, cultural and social advantages (Peal and Lambert 1962). Attention was increasingly drawn to the phenomenon of bilingualism, and this led to further interest in the subject and research being undertaken across the globe – cf. Meisel’s (1989, 1990 and 1994a, 1994b) publications in Germany, De Houwer’s (1990) study in Belgium, Lanza’s (1997) studies in Norway and Vihman’s (1998) research in the United States.

Describing bilingualism raises the question as to how well an individual knows the languages s/he is using and how proficiency can be tested. Mackey (1962:51ff.)

suggested that language proficiency must be assessed in various areas. He claimed that bilingualism is a behavioural pattern that varies in degree, alternation, function and interference and that the level of proficiency and the manner in which the language has been acquired show the degree of bilingualism (Mackey 1962:51ff.). The degree of bilingualism is of importance when looking at the extent of alternation between the two languages (Romaine 1995:12). In addition, the degree of bilingualism is important when discussing the question of the function(s) that the use of a particular language serve(s). Furthermore, it is crucial to consider the degree of bilingualism when looking at interference and addressing the question of how well the two languages are separated in the mind of the bilingual person. These characteristics will be looked at in further detail in the subsequent sections.

2.2.1. Degree of bilingualism

Language skills of bilingual speakers may not be of equal ability in the two languages. To assess the bilingual's proficiency, Mackey (1962) suggested testing a variety of areas. He provided a matrix to measure the degree of bilingualism. Mackey suggested looking at productive as well as receptive language skills (speaking, writing, listening and reading) and placing them in relation to the phonological/grammatical, lexical, semantic, stylistic and graphic level for both languages (see table 1).

In his matrix, he illustrates the skills and levels, which must be assessed in both languages (Language A and Language B). With the help of standardised tests, the framework can be filled in to show that there is no connection between the ability in one level and the ability in another level (Romaine 1995:13). A bilingual speaker may be able to express him-/herself better semantically in one of his/her two languages and it is not surprising either that one may have problems mastering the sound system of one of the languages while speaking without an accent in the other. This applies to late bilinguals in particular, where a late bilingual is a person who acquires or learns a second language later than childhood.

Degree											
Levels											
		Phonological- Graphic		Grammatical		Lexical		Semantic		Stylistic	
Skills	A	B	A	B	A	B	A	B	A	B	
Listening											
Reading											
Speaking											
Writing											

Table 1: Degree of bilingualism (adapted from Mackey 1962)

Mackey's framework shows that a person who would generally be considered as monolingual because of his/her poor skills in four of the five proposed areas could still be thought of as being bilingual, specifically as a bilingual with a low degree of bilingual proficiency (Romaine 1995:14).

The degree of bilingualism has been of great importance to researchers in order to classify bilingual speakers more appropriately. As mentioned earlier, bilingualism has been described in terms of categories according to the degree of proficiency. Another important distinction is made in relation to the skills that bilinguals demonstrate. Bilingual speakers are categorised as either "productive" or "receptive" bilinguals. If a bilingual is competent in one language and masters the productive skills (speaking or writing) of another language, s/he is considered to be a "productive bilingual", whereas bilinguals who only master receptive skills (reading or listening) of another language are considered "receptive bilinguals" (Wei 2000:7).

In relation to bilingual child language acquisition, it has been observed that many children speak only the language of the community in which they live (which is the same as the L1 of one of the parents) but are able to understand the language of their other parent whose L1 differs from that of the community (Myers-Scotton 2006). This indicates that in many cases of child bilingualism, one language is dominant, which is due to the length of exposure the children have had during the process of acquisition (Myers-Scotton 2006:3). This fact accounts for a distinction between balanced bilinguals and dominant bilinguals (see section 2.2). Various factors such as the emotional state, the environment, the topic or the addressee can influence the dominance of the languages at times and also over time, which again makes it difficult

to assess someone's proficiency, his/her degree of bilingualism and the language dominance (Romaine 1995:18-19). For the purposes of this thesis, the dominant language is taken to be the one the child prefers and uses more frequently in a variety of settings and in a variety of activities.

2.2.2. Bilingual first language acquisition

The term "bilingual first language acquisition" is used to distinguish such acquisition by children from the acquisition of only one language. Most research on child language acquisition has been undertaken on monolinguals. Due to the increasing interest in bilingualism, however, the number of studies on bilingual child language acquisition has grown (Myers-Scotton 2006:325). In general, bilingual first language acquisition refers to the acquisition of two or more languages as a very young child (Meisel 1990). This thesis is only concerned with the acquisition of two languages (as opposed to multiple ones).

There are two main ways of becoming bilingual: one is without instruction, by acquiring the languages spontaneously, and the other way is partly with instruction, by acquiring another language at a later stage, usually after the age of three (Myers-Scotton 2006:326ff.). Children who acquire their two languages at the same time in a natural way and without any further instruction are referred to as "simultaneous bilinguals", as they learn both languages simultaneously from birth. This is often done by following the "one-person-one-language" (see section 2.2.3) strategy, which was first introduced by the French linguist Maurice Grammont in 1902 (Romaine 1995). This approach was adopted to raise children as truly simultaneous bilinguals. Each parent speaks to the child in one language only, which, in theory, leads to an equal amount of exposure to both languages. Meisel (1990), in this case, refers to the phenomenon as the acquisition of "two first languages", which delimitates the misleading term "second language acquisition", which is commonly used otherwise. He, along with other scholars, referred to the study of bilingual children as the study of "bilingual first language acquisition" (BFLA) (Meisel 1990; Genesee 2006).

As previously mentioned, the other way of becoming bilingual is to acquire one language first and learn another language at a later stage. This is mostly the case when interaction in the second language takes place in an educational setting, namely

kindergarten or school, or if the other language is learned through interaction with the community. These types of bilinguals are referred to as “successive bilinguals” (Myers-Scotton 2006:326).

The age of acquisition and the length of exposure to the two languages are indeed of great importance when it comes to assessing the level and skills of the languages that children develop (Romaine 1995:182ff.). It is suggested that the younger children are when exposed to a second language, the higher the level of proficiency they gain (Romaine 1995:182). Age and length of exposure are also of great importance when addressing the question of if, and to what extent, the two languages are separated in the mind of the bilingual.

Research into BFLA is only concerned with the simultaneous acquisition of two languages (Genesee 2006). There are, however, other ways to become bilingual, which are not outlined here in detail, for reasons of space. Romaine (1995) has studied the main types of simultaneous childhood bilingualism and placed them into six categories, taking the influence of language exposure into consideration. These types will be discussed in the following section.

2.2.3. Types of bilingual acquisition in childhood

There are various factors that influence language acquisition in children, such as the native language(s) of the parents, the language of the community in which the children live, and the parents’ attitude and strategy when speaking to their children. Romaine (1995:183ff.) has identified six types of bilingual acquisition in childhood based on the factors mentioned above. All types refer to natural language acquisition in children and are classified in terms of the constellation of the parents, the community and the strategy used when speaking to the children. Romaine (1995:183-187) suggests the following constellations:

Language Acquisition Type 1: One person – one language

In this case, the parents both have different mother tongues and both use their mother tongue when addressing the child. They each have some knowledge about the other’s mother tongue as well. One of the parents’ languages is the language of the

community and environment³ in which the child grows up. The parents follow the strategy to only speak their own mother tongue to the child from birth. The earliest documented study using this approach was recorded by Ronjat (1913), followed by that of Leopold (1939).

Language Acquisition Type 2: One language – one environment

In this case, both parents have different mother tongues and the language of one of the parents is identical to the language of the community and environment in which the child grows up. The parents both speak the non-dominant⁴ language, and the child is only exposed to the dominant language (i.e. the language spoken by the community at large) outside his/her home environment.

Language Acquisition Type 3: Non-dominant home language without community support

Here, the parents have the same mother tongue, which is different from the language of the community and environment in which the child grows up. The parents speak only their shared mother tongue to the child.

Language Acquisition Type 4: Double non-dominant home language without community support

The parents have different mother tongues and the dominant language of the community is not one of either parent. The parents follow the strategy to each speak his/her own mother tongue to the child from the child's birth.

Language Acquisition Type 5: Non-native parents

The parents have the same mother tongue, and the dominant language of the community is the same as that of the parents. The parents follow the strategy that one of them uses a language that is not his/her mother tongue when speaking to the child.

Language Acquisition Type 6: Mixed languages

The parents are bilingual themselves and the language of the environment in which the child grows up is identical to one of the languages the parents speak. The parents

³ Romaine (1995) refers to such language as the “dominant language”. Note that the term as used by Romaine has a different meaning to that of the term as used in this thesis.

⁴ Romaine (1995) refers to the non-dominant language as the language which is not shared with the community.

use the strategy to raise the child bilingually by mixing between their two languages and switching at times.

Most of the bilingual language acquisition types stated above show some similarities. What is distinctive, however, is the strategy the parents use when addressing the child. Type 1 and Type 3 are of interest for this thesis as they are represented by the participants in the present study. For the purpose of this study, two further types of bilingual child acquisition will be introduced:

Language Acquisition Type 7 (a hybrid of Types 3 and 5):

The parents share the same mother tongue, which is different from the language of the environment and the community in which the child grows up. One of the parents speaks to the child in the language of the community, which is not his/her mother tongue.

Language Acquisition Type 8: Successive bilinguals

This type of bilingualism applies to children who are considered to be successive bilinguals. Consequently, this type does not fit into Romaine's (1995) classification system, as her system categorises variants of simultaneous bilingualism only, but will be introduced for the purpose of the present study. In this case, the parents share the same native language, which is in fact the language of the community. The child is exposed to a second and non-dominant language only in school and, thus, not from birth.

The level of proficiency and, thus, the outcome of children's bilingualism are, as mentioned earlier, dependent on various factors. Recall that the duration of exposure to each of the languages is one factor which has great influence on the children's level and degree of bilingualism. So far, research has shown that children of Language Acquisition Type 1 gain the highest level of proficiency in both languages and are highly likely to turn into balanced and productive bilinguals who are able and willing to use both languages appropriately (Romaine 1995:182). Most of the early research on bilingual child language acquisition has in fact been done with children of Language Acquisition Type 1 and has focused on the unitary language system hypothesis, which was explicitly formulated by Volterra and Taeschner (1978). It will be looked at closer in the following section.

2.2.4. One or two language systems?

From the very beginning, researchers have discussed the question of whether bilinguals have one or two operating language systems (Romaine 1995; Gardner-Chloros 2009). It was long believed that bilingual children who grow up acquiring both languages simultaneously are not able to differentiate between their two languages. Researchers thought that bilingual children have a fused system due to the fact that they mix elements from their two languages. The existence of mixed utterances led many researchers to conclude that children at an early stage have only one language system that obliges them to use mixed syntax (see Romaine 1995:205). These observations were taken as evidence of a so-called “unitary-language system” that does not differentiate between underlying phonological, lexical or syntactic subsystems (Genesee 1989:161-163). Researchers further believed that mixed utterances were in fact a sign of language confusion (see Myers-Scotton 2006:332). Ronjat (1913), Leopold (1939) and Volterra and Taeschner (1978) among others supported this idea. The work of Leopold (1939) and Volterra and Taeschner (1978) will be discussed below.

Leopold (1939) observed his daughter Hildegard between 1939 and 1949 and presented one of the earliest recorded studies on childhood bilingualism. He claimed that “words from the two languages did not belong to two different speech systems but to one” (Leopold 1939 in Wei 2000:331). This was a first attempt to answer the question as to whether bilingual children draw their speech from one or from two different language systems that are not related to each other. Swain (1972) agreed with Leopold’s findings and proposed a common storage model, stating that the linguistic rules of both languages are stored in one system from which bilinguals draw.

However, interference as an indicator for a fused system is problematic. Making use of mixed utterances may also be a sign of limited lexical resources that children have or may, in contrast, show that bilingual children draw on their complete linguistic repertoire to make sure they are understood (Romaine 1995:206). More recent research shows that some bilingual children are in fact able to use their two languages in accordance with their interlocutor (Genesee 1989). Thus, the mixing of two languages in early years does not necessarily indicate a fused system. Researchers

have long debated the merits of the “one system theory” vs. those of the “or two system theory” (Romaine 1995:205), or “unitary-language hypothesis” vs. “differentiated-language hypothesis” as they are sometimes referred to.

The early findings of Leopold attempted to show that there is only one central operating system from which both languages draw. Volterra and Taeschner (1978:311-312) took the evidence of interference as the basis for their three-stage model, which proposes that bilingual children go through different stages during the process of language acquisition. They concluded that bilingual children use a fused system, as they mix their grammatical as well as their lexical systems. They claimed further that stage 1 is the initial stage that children go through in which they do not differentiate between their two languages. During this stage, which is essentially monolingual, children draw from only one lexicon that stores words from both of their languages. During the second stage, however, bilingual children start to make a distinction between the two lexical systems but apply the same syntactic rules to both of their languages. In the third stage, bilingual children differentiate syntactically and lexically between the two languages (Volterra and Taeschner 1978:311-312).

Lindholm and Padilla (1978:334) questioned the unitary-language hypothesis and argued otherwise. They proposed that even at a very early age, children are able to differentiate between their two language systems contextually, which supported the differentiated-language hypothesis (Genesee 1989) or “Separate Development Hypothesis” as De Houwer (1990) called it. Meisel (1989) came to a similar conclusion and showed that Volterra and Taeschner’s differentiation of the three-stage model is problematic as it applied to their specific participants only. Meisel (1989) claimed that the children they studied seemed to show consistent behaviour by using one syntactic system only, which was clearly that of the children’s dominant language and, hence, cannot be seen as universal. Furthermore, he found that bilingual children learn from the very beginning to distinguish between their two languages, especially as regards the morphosyntactic frame of the two languages they use (Meisel 1989, 1990). Genesee (1989) also supported the idea that the two languages are differentiated from the very beginning. He claimed that children are able to use their two languages in a distinct way according to context and function, and criticised Volterra and Taeschner’s data for not having been collected in separate language

contexts (Genesee 1989). Consequently, Volterra and Taeschner's results cannot account for a unitary-language system.

Criticism of studies such as those of Leopold (1939) and Volterra and Taeschner (1978) led to further research on bilingual child language acquisition, and those by Meisel (1989), Paradis and Genesee (1996) and De Houwer (1990) showed that word-order patterns found in their data were in fact language specific. This led to the conclusion that bilingual children are aware of their two different languages and are very sensitive in terms of language choice when communicating. These findings point to the existence of two separate language systems that bilingual children employ. De Houwer (1990) showed that children of Language Acquisition Type 1 develop two morphosyntactic systems and that the grammatical development of one language does not affect the development of the other language. Myers-Scotton (2006:331) agreed with the findings of De Houwer, and saw De Houwer's results as evidence that bilingual children have two systems, one for each of their two languages. In support of the Separate Developmental Hypothesis, De Houwer (1995, 2005) showed in her studies how very young bilingual children employ two separate grammatical systems when they use either of their languages. She supported her hypothesis (namely that there are two separate systems from the beginning) with the findings that bilingual children are able to use the structure of their one language while implementing lexical items from their other language. In other words, young bilinguals have specific structures available that vary in use. Furthermore, the use of both languages in the same utterance requires a command of functional and grammatical principles as well as certain skills and knowledge about the languages in use. Producing mixed utterances depends on the experience a speaker has in using the two languages (Meisel 1994a:436) and does not show a lack of proficiency, nor is it an indicator that speakers draw from one, unified system only; rather, it speaks of a systematic use of both languages where certain patterns are allowed and others are restricted (Myers-Scotton 2006:333). While there is agreement that bilingual children of two years and older develop two syntactic systems, which supports the Separate Developmental Hypothesis, the question of whether or not bilingual children younger than two years of age draw from one system only, as well as the question as to when syntax actually begins to develop, cannot be answered at this point.

How well the languages are separated in early years is one aspect that determines the degree and level of bilingualism children achieve. Separating the two languages means that children will be aware of their two different languages. Differences in awareness are influenced by the duration of exposure to the two languages as well as social factors and the strategy parents use when raising their children (Genesee 1989). These influencing factors shall be discussed in the following section.

2.2.5. Factors influencing the degree of bilingualism attained

Both age of initial exposure and the duration of exposure to the languages show great influence on the outcome of bilingualism. When the process of acquisition starts determines whether someone is considered to be an early or late bilingual, as language learning is generally considered to become harder with age. Lenneberg (1969) introduced the notion of the so-called 'critical period'. The Critical Period Hypothesis proposes that various human developments, including that of language, require some experience that correlates with age (Foster-Cohen 1999:96). In other words, if language input is provided after the critical period, it may be too late to successfully learn that language to the same degree as a native speaker (Foster-Cohen 1999:96). In general, children acquire whatever language they are exposed to. The critical age, around three to six, is commonly thought to be the age at which language acquisition is largely complete⁵ (Myers-Scotton 2006:325-327). There has, however, been disagreement on the so-called "critical period", and recent studies have shown that even individuals who are no longer in the critical period have still managed to gain native-like control of two languages⁶ (Myers-Scotton 2006:345-347). However, young children are exposed to better input than older learners (Gardner-Chloros 2009) and there are better chances at becoming a balanced bilingual when one is exposed to both languages from birth or at the earliest point possible.

As stated above, length of exposure to the languages correlate with the age at which exposure starts. The continuous input and the quality of the input also influence the degree of bilingualism which children achieve (Gass and Selinker 2001:340-342). It is

⁵ In comparison to the knowledge that adults have, which comes from experience or through formal instruction.

⁶ In comparison to monolinguals, these individuals gained equal control (see Myers-Scotton 2006:345 ff.).

important to receive continuous input in both languages to maintain these languages; the frequency of input in each of the languages provided by family, caregivers, friends and the environment affect how well the languages are separated (De Houwer 1990). Consequently, the frequency of input may affect not only phonological skills and language production but also the codeswitching behaviour that children employ, which is the focus of the present study.

The role of input during the process of bilingual first language acquisition and how it affects children's competence in their two languages have been questioned by many researchers. Bergmann (1976) claimed that children who receive mixed input show more codeswitching than children who receive less mixed input. Chomsky (1986) argued that the language children are exposed to during the process of acquisition is far from perfect; children do, however, acquire full grammatical competence in their native language, which he described as the "poverty of stimulus" problem. He concluded that grammatical knowledge lies in the brain as innate properties of language, which cannot be learned nor taught and, thus, cannot be related to the input that children receive (Chomsky 1986). As hardly any research has been carried out on the correlation between mixed input and codeswitching behaviour, the question as to whether there is a correlation or not cannot be answered at this point.

What has been agreed upon, however, is the fact that children may develop discourse preferences and strategies based on the input they receive. Lanza (1997) stated that it is the parents who decide what amount of each language is allowed and whether or not codeswitching is tolerated. In addition, children eventually adjust to the norms of the society in which they live, these norms then being reflected in their language competence in the same way as the input they receive from their parents is. However, research (see below) has proven that all bilingual children mix elements from their two languages and that this behaviour requires skills and knowledge about the two language systems. Hence, input alone does not account for the occurrence of codeswitching.

Genesee (1989) found that children who differentiate between their two languages still produce mixed utterances when needed. Further research by Genesee, Nicoladis and Paradis (1995) supported these findings. Meisel (1989) claimed that it is not the

input itself but the linguistic environment, the language dominance and socio-psychological factors that all lead to mixing.

Recent studies have shown that codeswitching is a strategy used to repair, clarify and remodel communication, and young bilinguals make use of such strategies to ensure their message is understood (Romaine 1995:206). What functions and purposes codeswitching strategies serve will be shown in the following sections.

2.3. Codeswitching

The alternate use of two languages is commonly known as “codeswitching” (Myers-Scotton 2006:239). There are various definitions for the term “codeswitching”, but for the purpose of this thesis, I will be using Poplack’s (1980:584) definition: “the alternation of two languages within a single discourse, sentence or constituent”. Sometimes a distinction is made between codeswitching and codemixing (see 2.3.1.). In this thesis, however, the definition mentioned above will be used to refer to all cases where lexical as well as grammatical features of two languages occur in the same sentence or within a single discourse.

Weinreich (1953/1968:73) views codeswitching as a sign of lack of bilingual proficiency and claimed that ideal bilinguals “switch from one language according to appropriate changes in the speech situation (interlocutor, topics etc.) but not in an unchanged speech situation and certainly not within a single sentence.” However, a large number of studies has shown that bilinguals (whether or not they are ideal in Weinreich’s sense) produce mixed utterances, even in ordinary conversations, i.e. not in reaction to the changes mentioned by Weinreich (Muysken 2000:2).

Although most of the research on codeswitching applies to adults, there are a few studies that have contributed to understanding the codeswitching behaviour of children. Research has shown that, in general, all bilingual children produce mixed utterances of a phonological, lexical, morphosyntactic or pragmatic nature (Genesee 1989). The mixing of lexical items has been the most common form observed (Genesee 2006:51).

Recall that, for a long time, codeswitching was seen as the inability to separate the two languages and did not receive much attention (see section 2.2.4). However, the

attitude towards this language contact phenomenon changed, and researchers attempted to prove that codeswitching did not occur due to cultural and/or word-finding difficulties only (Muysken 2000:2). Studies from grammatical perspectives began to appear and these showed that codeswitching behaviour does not occur randomly but rather at specific points. Poplack was one of the first researchers to study codeswitching behaviour using the grammatical approach and found that bilinguals who codeswitch tend to be quite proficient, rather than poorly competent (Poplack 1980). She discovered that balanced bilinguals in fact switch more often than partial or limited bilinguals, as such switching requires systematic knowledge of both languages involved. Her findings created a major impetus for grammatical constraints on codeswitching. (Poplack's model will be described in further detail in section 2.2.4).

That said, there has been a shift in the approach of research on codeswitching: Recent studies have focused on different aspects of codeswitching behaviour and have looked at codeswitching not only from a grammatical point of view but also from a pragmatic perspective (Romaine 1995:121). The grammatical approach is concerned with linguistic constraints on codeswitching whereas the pragmatic approach assumes that there are stylistic reasons through which codeswitching is motivated.

Myers-Scotton (1993) proposed a syntactic frame model, which does not only propose grammatical constraints on codeswitching but also distinguishes between the two languages involved (see section 2.2.5). However, not all scholars share the idea that children are fully aware of their bilingualism and, thus, scholars disagree on whether or not children are able to codeswitch at all. To address this question, the grammatical constraints, proposed by the models of Poplack (1980) and Myers-Scotton (1993) to be present in the codeswitching of bilingual children, have been examined by Köpcke (1994), Meisel (1994a), Genesee and Sauve (2000), Genesee (2001), Lanza (1997), Vihman (1998) and Allen, Genesee, Fisch and Crago (2000). For reasons of space, their studies are not discussed in detail here; of importance is that, based on his observations, Genesee (2001) concluded that children obey the same constraints in codeswitching as adults do.

Research on child bilingual codeswitching has suggested that children only use one source of grammatical frame when they codeswitch and are in fact aware that they are

switching between their two languages (Myers-Scotton 2006). Furthermore, the amount of codeswitching increases with age as more proficiency in both languages is gained. Thus, the higher the language competence, the more frequent codeswitching occurs, which is in accordance with Poplack's (1980) findings.

2.3.1. Codeswitching vs. codemixing

“Codeswitching” and “codemixing” are sometimes treated distinctively among researchers. Both terms describe the alternate use of elements from two languages within one single sentence or utterance. As mentioned earlier, all bilingual children go through a stage in which they mix elements from their two languages. Sometimes, it cannot be determined clearly where in the utterance an element from the other language is introduced. These cases are referred to as “codemixing”. Here, lexical or grammatical elements from both languages are used within the same utterance but the dominant language cannot always be clearly identified. An example of codemixing would be the German-English utterance (4).

(4) *ER said DASS ES HEUTE really good is.*

he said that is today really good is

[= He said that it is really good today.]

It is argued by researchers that codemixing occurs throughout the stages when children are not yet able to differentiate between their two languages. As Lindholm and Padilla (1978) state, most of the elements mixed are in fact lexical items from different word classes. They claimed that children use lexical items from another language when they are missing the appropriate item or when it is more readily available in the other language (Lindholm and Padilla 1978). Genesee (2006) agreed with these findings, and with his “Lexical Gap Hypothesis”, he proposed that children are obliged to draw from the linguistic repertoire of the other language in which they are more proficient. Only in this way can they ensure that they are understood in their less developed language (Genesee 2006:53). Genesee has shown that bilingual children, whether they use the less developed language or not, are “more likely to mix words for which they do not have an appropriate item in the other language than for words for which they do” (Genesee 2006:54). This may, of course, be different for

codeswitching behaviour in adults, as adults are more likely to use borrowings (see section 2.3.2).

Making use of mixed elements to fill lexical gaps in accordance with the lexical or syntactic knowledge in either one of the languages is an appropriate strategy to transport meaning and may even occur when addressing monolingual speakers (Genesee 2006:54). Bilingual children may employ other strategies when producing mixed utterances, serving pragmatic rather than grammatical functions (see section 2.3.8).

“Codeswitching”, as mentioned earlier, is defined as “the alternation of two languages within a single discourse, sentence or constituent” (Poplack 1980:584). It is usually clear when this alternation from one language to the other occurs, and this alternation is triggered by certain factors other than for the purpose of filling lexical gaps. For example, one of the languages may be more effective than the other in a certain situation or may be used to express emotion. Thus, such language is used intentionally but does depend on the individual’s choice and language behaviour in particular. For the purpose of this thesis, however, there will be no distinction made between these two phenomena.

2.3.2. Codeswitching vs. borrowing

Whereas codeswitching entails that a word or constituent is inserted into a clause, “borrowing” refers to an element that is entered in a speaker's lexicon and has undergone the complete process of language change (Muysken 2000:69). Simply put, borrowed words are lexical items or reproduced patterns of one language previously found in another language and have become part of the former.

Lexical borrowings are types of such changes and will, for reasons of space, not be discussed further here. In some cases, words are borrowed from one language because there is no equivalent translation in the other language. Here, foreign words are integrated into the lexicon of the other language. An example of German words integrated into English would be *Schadenfreude* and *Zeitgeist*. In other cases, words are borrowed because they are more precise, shorter or easier to use than the

equivalent. Codeswitches, however, do not undergo any kind of change or adaptation process.

The biggest difference between codeswitching and borrowing is that borrowings are also used among monolingual speakers whereas codeswitching can only be used by proficient bilingual speakers as codeswitching requires knowledge and skills in both languages (Muysken 2000:71). In codeswitching, two vocabularies and two grammar systems are used during the process of speech production. Sometimes, however, as Muysken (2000:71) claims, it cannot be determined clearly whether it is codeswitching or borrowing. This is especially difficult when the foreign element is not in any way culture-specific but is perfectly integrated in the morphological and syntactic structures of the other language, as shown in example (5) below:

(5) *WENN DU money HAST, HAST DU ALLES!*

if you money has has you everything

[= If you have money, you have it all!]

According to Muysken (2000:71), in such cases, one can view the phenomenon as either (i) borrowing, (ii) a word-internal codeswitch, or (iii) a nonce-borrowing⁷, where nonce-borrowings are words that are phonologically and syntactically adapted but not conventionalised and, thus, they are distinct from conventionalised or established borrowed words (Haspelmath and Tadmor 2009:41).

Myers-Scotton (1993) concludes that the only criterion to determine whether it is codeswitching or borrowing is “absolute and relative frequency of occurrence”. She states further that many loanwords start out as switches but become conventionalised at a later stage.

How the instances in question can be tested to determine whether they entail codeswitching or borrowing falls outside the scope of this thesis. Interestingly, bilinguals often think they switch because of a lack of an equivalent in one of their languages. In fact, it has been observed that bilinguals often switch when they know, and frequently use, the element in both languages but the word in the one language is

⁷ *For the nonce* = “for the moment”. This term was introduced by Weinreich (1953/1968) and later used by Poplack (1980) to refer to types of borrowing which are found to be controversial.

more readily available than the equivalent in the other (Romaine 1995:143). This may, however, not apply to the codeswitching behaviour of children as their linguistic repertoire is limited and they do not have knowledge about conventionalised elements of language. In such cases, it will usually be referred to as codeswitching for the purpose of filling lexical gaps.

2.3.3. Types of codeswitching

Poplack (1980) differentiates between three types of codeswitching: (i) intersentential codeswitching, which refers to the switching between sentences and, hence, at clause or sentence boundaries; (ii) intrasentential codeswitching, referring to the switching within a sentence or clause as in example (1) in section 1.4; and (iii) tag switching, which refers to tags or sets that are inserted into an utterance, such as in (6):

(6) *You are joining me, ODER?*

you are joining me or

[= You are joining me, or not?]

Myers-Scotton (1993) introduces a fourth type, namely intraword codeswitching, referring to switches within a word itself, as a subtype of intrasentential codeswitching. An example of this would be example (2) in section 1.4. When approaching codeswitching from a pragmatic point of view, Weinreich (1953/1968) differentiates between situational codeswitching and non-situational codeswitching, which are types of codeswitching that will be discussed further in terms of function (see section 2.2.8).

Poplack (1980) showed that intrasentential codeswitching requires the most skills. She stated that bilingual speakers with high proficiency in both languages demonstrate more intrasentential codeswitching, whereas speakers with limited proficiency in one of the languages demonstrate more intersentential or tagged switching (Poplack 1980). Reasons for these findings are that bilingual speakers need to know both languages equally well in order to use them within a single sentence and without violating the syntactic rules of one or both of the languages involved (Muysken 2000:225). Grammatical constraints have been one of the most studied aspects in the field of codeswitching and will be looked at in the following section.

2.3.4. Grammatical aspects of codeswitching

Grammatical explanations of codeswitching behaviour have been related to bilingual proficiency and linguistic ability of individual speakers. Across research studies, most of the codeswitching data that is approached from a grammatical perspective has been based on the assumption that bilinguals employ codeswitching to a very substantial degree and differentiate between two different sets of language rules (Gardner-Chloros 2009). Linguists who apply grammatical approaches to the study of codeswitching are in constant search of universal regularities. They generally claim that certain combinations of elements from two alternating languages are prohibited whereas others are allowed.

The most well-known grammatical constraints on codeswitching have been proposed by Poplack (1980) and Myers-Scotton (1993). Poplack's attempt was a variationist approach to find universal constraints on codeswitching. Myers-Scotton (1993), by contrast, used a production-based approach to include psycholinguistic aspects, and her model has been proposed as a direct alternative to Poplack's variationist approach (Gardner-Chloros 2009:95). Both of the models explain surface regularities. Myers-Scotton's (1993) Matrix Language Frame Model will be discussed in further detail in section 2.3.5.

Poplack (1980) observed that codeswitching is not employed at random points in an utterance. Poplack (1980) proposed a model based on principles that restrict the occurrence of codeswitching at certain points. Ever since her results were published, researchers have tried to find counterexamples, and research into this area has continued (Romaine 1995:120-125).

Poplack (1980) suggested a model of constraints with regard to the types of codeswitching mentioned earlier, and the equivalent constituent order in which they occur. She proposed two principles:

- (i) the Free Morpheme Constraint, which states that codes may be switched after any constituent in discourse provided that this constituent is not a bound morpheme unless the element has been phonologically integrated into the language of the bound morpheme (Poplack 1980:585-586).

- (ii) the Equivalence Constraint, which proposes that codes tend to be switched at points in discourse where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language (Poplack 1980:585ff.).

According to her constraints, switches between free and bound morphemes are not allowed unless the latter has been phonologically assimilated into the former (Poplack 1980:585). Furthermore, codeswitching is only possible at points where the surface structure of both languages maps onto each other and where the syntactic frame of both languages in this respect is identical. This sounds reasonable at first but the question arises as to whether such points can be found in two languages with a very different syntax. In addition, Poplack claimed that switches before and after a bound morpheme are prohibited (Muysken 2000:14).

Poplack (1980) further claimed that possible switches, which violate both the Free Morpheme Constraint and the Equivalence Constraint, are not considered to be switches but rather inflected nonce borrowings or, what she refers to as, “flagged switching”. Poplack (1980) does not discuss her model any further and it can be postulated that she claims it is applicable to all possible language pairs. However, there is still disagreement about whether or not Poplack’s model can be seen as universal. Her model has been criticised by Romaine (1995) and Muysken (2000), who claimed that it could not be applied to languages in contact, which do not share the same grammatical categories. They argued that her model does not make any predictions for language combinations with completely different syntactic structures (Gardner-Chloros 2009:96). So far, it has been verified for most codeswitching instances in Spanish-English, Finnish-English, Arabic-French, Tamil-English and French-English language pairs and research has continued (Poplack 2000, 2001).

There are other models, such as the Government Model proposed by Di Scullio, Muysken and Singh (1986) that state that the relation between a head and its syntactic environment (thus, aspects related to government) constrains certain codeswitches. The model did not apply to common codeswitches and will not be described further here.

It should be noted that codeswitching in children may, in some cases, differ from that in adults and is in fact motivated by different strategies, which will be discussed in terms of pragmatic approaches to codeswitching in a subsequent section.

2.3.5. The Matrix Language Frame Model (Myers-Scotton)

The Matrix Language Frame Model (MLFM) proposed by Myers-Scotton (1993) applies to bilingual clauses in intrasentential codeswitching. It aims to explain where in a clause codeswitching is allowed and where it is not permitted. However, the languages involved in these bilingual clauses are not equal as far as structure is concerned. With her Matrix Language Hypothesis, Myers-Scotton (1993) proposed that one language is in fact the “giving language” that provides the syntactic frame, the “Matrix Language” (ML). The other, “contributing” language from which elements are taken surfaces as the so-called “Embedded Language” (EL). Clearly, the role of the EL in her model is only to supply elements that can be embedded into the ML. Since the ML must provide the morphosyntactic frame, the ML has to be more developed and speakers must have more ability in the ML than in the EL in order to produce ML+EL constituents (Myers-Scotton 1993). The ML is usually the more desired language and the one that provides a larger number of morphemes within a sentence (Myers-Scotton 1993:66). Using this criterion helps to identify the ML.

Myers-Scotton (1993:6) proposed three types of constituents that occur in intrasentential codeswitching (In all cases, the ML will provide the morphosyntactic frame):

- (i) ML+EL constituents (showing morphemes from both languages),
- (ii) ML islands (which are constituents entirely produced in the ML), and
- (iii) EL islands (which are entirely produced in the EL when ML morphosyntactic procedures are blocked and EL procedures are activated) (Myers-Scotton 1993:6ff.).

Whether or not a morpheme may appear in (i) or in (ii) depends on the type of morpheme and its status. To this end, Myers-Scotton (1993) distinguishes between “content morphemes”, which carry semantic meaning, like most nouns and verbs; and “system morphemes”, which provide grammatical information, such as function

words and inflections. The model proposed by Myers-Scotton (1993) makes a clear distinction in how codeswitching constraints apply to these morphemes. She proposed two principles:

- (i) the Morpheme Order Principle, which states that the morpheme order must not violate ML morpheme order, and
- (ii) the System Morpheme Principle, which states that in mixed utterances, the system morphemes (that are syntactically relevant) come from the ML, meaning that all morphemes from the EL must be content morphemes unless they belong to an EL island (Myers-Scotton 1993:6).

An example from a German (ML)/English (EL) codeswitching situation is given in (7):

(7) *UND DANN WAR ES ZU SPÄT, WEIL SIE AUF DEM WEG NOCH HATTE DIE POST collectEN WOLLEN.*

and then was it too late, because she on the way still had the post collect want.to
 [= And then it was too late, because she wanted to collect the mail on her way.]

This example shows that even though an English verb stem (*collect*) is used (thus a content morpheme), the word order is German, which is in accordance with the Morpheme Order Principle. The System Morpheme Principle is not violated either as the English verb is inflected with the grammatically correct German marker *-en*. This shows that the content morphemes may come from the EL (English); the ML (German), however, provides the morphosyntactic frame and, thus, the system morphemes also appear in the ML.

The model suggests that the ML may change during a conversation, provided that there is a change in topic or situation. The model can be summarised by stating Myers-Scotton's (1993:7) set of interrelated hypotheses:

- A. The Matrix Language Hypothesis: The ML provides the morphosyntactic frame for ML+ EL constituents
- B. The Blocking Hypothesis: The ML blocks the appearance of any EL content morphemes, which do not meet certain congruency conditions with ML counterparts

- C. The Embedded Language Island Trigger Hypothesis: Whenever an EL morpheme appears which is not permitted under either the ML Hypothesis or the Blocking Hypothesis, the constituent containing such morpheme must be completed as an obligatory island
- D. The Embedded Language Implicational Hierarchy Hypothesis: Optional EL islands occur; generally, they are only those constituents which are either formulaic or idiomatic or are peripheral to the main grammatical arguments of the sentence

Myers-Scotton's (1993:7ff.) model does not require complete fluency in the EL when codeswitching occurs. Speakers must, however, have knowledge of the morphosyntactic frame as well as phrase-structure rules to be able to produce well-formed sentences (Myers-Scotton 1993:7ff.).

In some cases, the ML cannot be clearly determined (Myers-Scotton 2006). Often, the ML is the mother tongue, or first language, of a speaker or the one in which a speaker feels most comfortable and proficient. Another indicator is that bilingual speakers usually switch from the ML to the EL and not vice versa. For the purpose of this thesis, however, the ML is the language considered to be the dominant language of the participants and, thus, the language in which the children feel most comfortable.

Vihman (1998) observed that most constraints proposed in the MLFM apply to the codeswitching behaviour of adults as well as children. As the MLFM only applies to intrasentential codeswitching, it will be shown later in this thesis in which way the MLFM and the constraints proposed in the model are valid and can help to analyse data of the present study.

2.3.6. Trigger points

Trigger points refer to the points in a clause or sentence at which codeswitching occurs. What causes triggering of codeswitching has been intensively studied by Clyne (2003). When he first developed his Triggering Hypothesis in 1967, the phenomenon of codeswitching had not been studied widely, and little was known about the mental processes of speech production. He proposed that words that contain similar meaning or words of similar form in two languages can trigger or alleviate a

switch from one language to the other (Clyne 2003). Clyne's (2003) Triggering Hypothesis suggested that there is a relation between trigger words and codeswitching. Trigger words are classified as follows (Clyne 2003) and are illustrated with invented examples below:

(i) lexical transfers (or borrowings), as in (8)

(8) *ICH SITZ' AUF DER COUCH/couch; let's start the movie.*

I sit on the couch let's start the movie

[= I am sitting on the couch; let's start the movie.]

(ii) bilingual homophones, as in (9)

(9) *Es ist bei/by South Africa.*

It is by South Africa.

[= It is by South Africa.]

(iii) proper nouns, as in (10)

(10) *MÖCHTEST DU EINEN CHEESEBURGER/cheese burger?* – Yes, please!

want you a cheese burger – yes please

[= Would you like a cheeseburger?– Yes, please!]

Clyne (2003) differentiates between codeswitching that is externally motivated through the setting, the participants or the topic, and codeswitching that is internally motivated through social or psychological reasons. Internally motivated codeswitching is usually triggered by the words mentioned above. These words can trigger codeswitches because bilingual speakers may forget which language they are speaking. Trigger points account for unintentional codeswitching and serve a pragmatic or social function.

Clyne (2003) further claimed that sometimes codeswitching – especially externally conditioned codeswitching – is triggered by the entire context of the situation rather than by a single word only, and that prosody and syntax may also facilitate codeswitching. Clyne's hypothesis (2003) has made a great contribution to the understanding of the motivation behind codeswitching but needs further evaluation as many questions remain unanswered: The words proposed as trigger points are not always followed or preceded by a codeswitch. Neither can all possible codeswitches that have ever been recorded be related to such trigger words. Consequently, not all

codeswitching behaviour of individual speakers can be explained, and the theory only accounts for some examples of codeswitching presented in the literature.

2.3.7. Reasons for codeswitching

There are various reasons why speakers codeswitch. As mentioned in section 2.3.6, codeswitching can be either externally or internally conditioned. Bilingual speakers switch due to personal reasons according to the setting, the interlocutor and/or the topic. Research has shown that bilingual children are very sensitive when it comes to using their two languages and are able to use their two languages according to the situation of the speech event (Lindholm and Padilla 1978; Genesee 1989).

When codeswitching is externally conditioned, bilingual speakers switch between their two languages due to their proficiency, their emotional state and/or their preference. Children in particular will try to use their dominant language rather than their less developed language if the situation allows. They may use one of their languages in certain situations to express their identity or with regard to their community. Children usually have one preferred language, which is the one to which they are more regularly exposed. At the same time, children may refuse to speak one of their languages due to emotional issues that they associate with that language, e.g., bad experiences or difficult relationships.

2.3.8. Functions of codeswitching

The most commonly found function of codeswitching in children is that of filling lexical gaps. When a bilingual child is missing the appropriate word in one of the languages, he/she will usually draw the lexical element from the repertoire of the other language (Genesee 2006:53). However, codeswitching has also been found to be used as a discourse strategy to serve pragmatic functions or for purposes such as constructing social and language identity (Genesee 2006:55).

To this end, the functions of codeswitching have been categorised among researchers as either situational or non-situational. Situational codeswitching refers to the type of codeswitching that is externally conditioned by components of the speech event such as the topic and the participants (Weinreich 1953/1968). When the context or the

participant constellation changes, bilingual speakers are highly likely to switch to the other language in order to redefine the situation.

Non-situational codeswitching, by contrast, refers to the intention bilingual speakers have when trying to deliver messages and convey meaning. In this case, the situation (i.e., the context and participants) remains unchanged.

Romaine (1995) stated that, in general, codeswitching has an expressive function and contains pragmatic meaning. Genesee (2006:55) agreed with this statement and claimed that the pragmatic function of codeswitching in children is to clarify or to emphasise the importance of what they are saying or to quote what someone else has said.

Gumperz (1982:73ff.) claimed that codeswitching occurs as a discourse function (i) whenever direct and reported speech or quotations are used, (ii) whenever a specific speaker is addressed, (iii) whenever messages must be emphasised or clarified, (iv) whenever messages must be qualified, or (v) due to personal preferences. Research has shown that children in particular use codeswitching to mark types of discourse such as narration, negotiation, explanation or protest (Genesee 2006:55). Genesee (2006:55) further claimed that some children associate a higher affective load with one of their languages than with the other, which explains their language choice in particular situations. In addition, a particular speech event will usually be reported in the language in which it took place. Furthermore, children are generally well aware of the language skills of their interlocutors and use their own languages accordingly.

Children use codeswitching to accommodate the speaker and the community as a marker of social identity (Poplack 1980; Genesee 2006). In Poplack's (1980) study, she showed that rapid and fluent mixing within the community was used by speakers in order to be identified as both Puerto Rican and American.

Community-based patterns as well as family norms can influence the codeswitching behaviour of children, depending on the attitude families show towards this phenomenon. Döpke (1992) studied German–English bilingual children in Australia and came to the conclusion that some families were more successful in using both languages even though German was not the language of the community. She places these observations in relation to the discourse strategies the families applied, namely

encouraging the children to use the non-dominant language even if they were tempted to use the other language. However, the findings do not prove that all bilingual children who receive more mixed input employ more codeswitching than bilingual children who receive less mixed input. Döpke's study, along with Poplack's results, shows instead that the codeswitching behaviour of children will differ individually, depending on the norms and values that apply to them while growing up bilingually.

There are other functions that codeswitching serves apart from the ones mentioned above. Meisel (1994a) claimed that children sometimes use codeswitching to play with their two languages or to demonstrate their skills. Furthermore, children employ codeswitching to correct themselves as an initiated strategy of self-repair: When children notice that they are using the inappropriate language, they correct themselves and switch to the other language (Romaine 1995:190). It should be noted, however, that some codeswitches cannot be attributed to a specific reason or function and may not serve any specific purpose at all. These types of codeswitches will be viewed as purely unintentional.

2.4. Summary

The previous sections have provided definitions of key terms and have introduced specific features relating to the field of bilingualism and codeswitching. Different types of bilingualism as well as codeswitching have been classified and grammatical constraints on codeswitching have been outlined. Furthermore, Myers-Scotton's (1993) MLFM was presented in order to provide a theoretical framework in which the data of the current study can be analysed. The theoretical background provided in this chapter will contribute to the understanding of the data of the present study and help the reader to contextualise the phenomenon of codeswitching which is dealt with in this thesis.

As most of the research on codeswitching has been undertaken with adults, I have tried to include in this chapter research findings that contribute to the understanding of codeswitching behaviour in children. Lastly, reasons and functions of codeswitching have been discussed, which provides the necessary background for the data analysis of the current study.

Chapter 3: Methodology

3.1. Introduction

This chapter sets out the chosen methodology. It provides detailed explanations of how the participants were chosen, the research instruments that were used to collect the data, the procedures with which the data was collected and transcribed, and the data analysis procedures.

The study presented in this thesis investigates the codeswitching behaviour (and the function/s thereof) in bilingual children. It is specifically concerned with the relation between codeswitching behaviour and language background, and aims to ascertain whether duration of language exposure influences codeswitching behaviour in bilingual preschool children.

The research question emerged while observing bilingual children who have managed to switch between their two languages seemingly effortlessly. However, some children seemed to employ more codeswitching than others. Thus, this thesis attempts to develop an understanding of codeswitching behaviour (frequency, type and function thereof) in bilingual children with different language backgrounds.

3.2. Research context

The study took place at a German kindergarten, an independent and non-profit academic institution, in inner-city Cape Town. The school accepts children from various language backgrounds provided they have some knowledge of German. The kindergarten accommodates children from three years onwards up until six years of age. Children attend kindergarten until they start primary school. At the time of data collection, there were five classes, each with a maximum of 25 children. All classes are taught by German-English bilingual and qualified kindergarten teachers and their assistants. In addition, the kindergarten hosts various interns throughout the year most of whom are from Germany.

The kindergarten is predominantly German-speaking and follows a strict language policy: All children who are accepted at the kindergarten must have a least some

knowledge of German that the teachers can build on. The kindergarten is regarded as the preparatory centre for the German School in Cape Town, and children who wish to attend the German School later on will have to show sufficient German skills in order to be accepted. Whenever the children address the teachers or talk to their playmates in English, they are reminded by the teachers (and in some cases by the other children) to speak German. If a child does not know how to phrase an utterance in German, the teachers assist him/her, model the utterance for him/her and repeat the utterance to increase the learning effect. The goal is to speak as much German as possible and to use English only if the children are unsure or do not know the German equivalent. The language of interaction is German, and all school material is in German. Due to their strict language policy, the children are constantly reminded by the teachers to speak German to each other, especially in the classroom and during school activities.

3.3. Collection of data

The data presented in this thesis was collected from six German–English bilingual preschool children. The data consists of individual language profiles that were established by means of parental questionnaires (see section 3.5.1 and Appendix A) and drawings that the children created (see section 3.5.2) as well as of recorded speech data that was collected during both formal and informal interaction with and between the children (see section 3.5.3).

After attaining verbal consent from the principal to conduct the study with the kindergarten's children and parents, letters containing information about the study as well as consent forms and language background questionnaires were sent to selected parents (see below) via the kindergarten. The questionnaires contained questions about each child's language development and language background (specifically the languages they used and were exposed to at home and in other environments) as well as basic information about the parents (such as their highest level of education). These questionnaires were filled in by the parents and were collected afterwards for evaluation. Before data collection commenced with the participants, each participant was given a verbal explanation of the project and of what their participation would entail, and they were asked to sign a consent form (see Appendix C).

The data on codeswitching behaviour was collected from the participating children over a period of 15 days (spread over three weeks). During the period of the first five days, I assisted the teachers in their classrooms and on the playground in an attempt to get to know the children and to informally observe codeswitching behaviour in the kindergarten. On days 6-10, I started working with the children in groups of two in order to have them draw their own language profiles. They could slowly become used to me working with them and they were able to find out about my own language profile. This was of great importance as they learned that I am bilingual as well and that they may address me in both English and German if they wish. The children were instructed to colour in the outline of a human body according to their language background and their language preferences. The results were used to show where the children see themselves in regard to their language background and/or language proficiency. (See section 4.2 for examples).

During the last data collection period, starting on day 11 and ending on day 15, I recorded the children in a conversational setting in which they described a series of pictures to me. This was done individually with each child. The purpose of the story-elicitation activity was to engage the participants in a conversation about topics with which they all feel familiar, in a situation where they were able to talk freely and without any pressure, yet I still had to structure the activity somewhat so that each participant had equal opportunity for codeswitching. The picture stories that were used in the sessions were chosen based on their topics. The stories were age-appropriate and suitable for the purpose of their use.

From day 6 onwards, I also recorded each participant for one hour (during interaction with other participants and/or non-participating children) during lunch breaks and playtime, which provided additional data to be used in order to address the research question. Here, I acted as an observer only and took field notes if utterances were unclear and as an additional tool to reconstruct the context of the conversations afterwards. With the help of audio recordings, the data could be transcribed more accurately as utterances could be listened to repeatedly.

The recordings of the story-elicitation activity were between five and 10 minutes long (depending on the rate at which the participant completed the task) and took place in a separate classroom with each participant individually. The recordings of the

unstructured sessions were one hour long for each participant; the data was obtained on the premises of the kindergarten while the children were playing with their friends, playing games, doing creative work or carrying out school activities.

Ethical clearance for the project was obtained from the Ethics Committee of the Faculty of Arts and Social Sciences of Stellenbosch University. As stated above, the participants and their parents provided written informed consent. They were informed that they could withdraw their consent at any time during the period of the research project. Children were carefully monitored for interest and fatigue levels so that rest periods could be given during data collection if required. Participants were assigned codenames, and all background information and other data collected were treated confidentially and for the purposes of this research project only.

3.4. Participants

In consultation with the principal of the kindergarten, six potential participants were identified. These children and their parents consented to participation in the study, and these six children therefore comprised the participants in this study. The children were all five or six years of age, three were male and three were female, and all of them live in Cape Town. They have all attended the kindergarten from age three onwards and thus they have all had some German input for a minimum of two years. The participants were chosen based on the language input they receive at home (German only, English only or English–German bilingual). Unfortunately, it was not possible to find two participants for each of the input conditions as there was only one child in that age group with a German-only language background. One other participant, whose mother tongue and dominant language is German despite receiving some English input at home, was therefore selected and grouped with the participant with the German-only language background. This was done in order to have two participants who have had more exposure to German than to English, even though these two participants were not assigned the same type of bilingual acquisition in childhood (see section 2.2.3). Consequently, three participants were chosen who receive bilingual input at home, two participants who mainly received English input at home, and one participant who received only German input at home. A detailed

description of each participant and the classification of their bilingual language acquisition types are given in section 4.2.

3.5. Research instruments

For the purpose of this study, three different instruments were used to collect data, namely parental questionnaires, language portraits (i.e., the drawings of a person's body to be coloured in by the children), and picture stories. In addition, field notes were taken to reconstruct certain situations that occurred during the recorded sessions and to provide information on the meta-level. The research instruments and their use are described in further detail in the following sections.

3.5.1. Questionnaires

To obtain background information on the individual participants, their parents were asked to fill out a questionnaire of six pages. In this way, information about the language development, the language exposure as well as the language of interaction of each participant was acquired. The questionnaire (see Appendix A) was an adaptation (by me) of the questionnaire used by the COST Action ISO804 (see www.bi-sli.org), which is in turn a shortened combination of the Alberta Language Environment Questionnaire (see Paradis 2011) and the Alberta Language and Development Questionnaire (see Paradis, Emmerzael, and Sorenson Duncan 2010). The questionnaires were adapted for the purpose of this thesis and questions were modified in order to be applicable to the current study. Irrelevant questions (such as those on the migration background of the parents) were omitted. The questionnaires allowed me to obtain background information regarding the parents' educational and linguistic history, the children's language exposure, and the languages the parents use when speaking to the child. In order to answer the research question, it was necessary to develop an understanding of the strategies that the parents use when addressing the children. Again, this information was crucial in order to classify the participants according to their type of bilingual language acquisition (see section 2.2.3.). Some parents added additional information on the questionnaires about their child's language environment and/or development.

Since only six children participated in the study, the questionnaires were analysed individually and manually, and information regarding the participants' individual language profiles were obtained by means of this analysis.

3.5.2. Language portraits

In addition to the questionnaires, the children were asked to take part in a session (under my supervision) in which they drew their own language portraits. Three sessions took place where the children, in groups of two, were asked to colour in the outline of a child's body according to their language preferences and/or proficiencies. The sessions were held in a separate classroom. In an adaptation of the procedure developed by Busch (2010), the participants were asked which languages they know and were told to choose one colour for each of their languages. The children were further asked which parts of the body they need in order to produce speech. During all three sessions, the children agreed on their ears and their mouths as parts of the body that are involved during the process of speech production. The concept of the 'mind' was excluded as I felt it was too abstract and difficult for young children to answer the question "In which language do you think?" Some of the participants asked to include the eyes in their portrait as a part of the body that they are likely to use when they produce speech. Next, the participants were asked to (i) colour in the mouth according to the language(s) they speak most; (ii) colour in the ears according to the language(s) they hear most; and (iii) if they selected eyes as part of their language-related body parts, colour those in according to the language(s) they see most. The children were further asked to use a colour in order to represent the language(s) with which they feel or express their feelings and/or emotions; they were very keen to perform this task, and all six of them coloured in the heart in response. All children willingly participated in the activity, and the drawings were collected for further evaluation (see section 4.2). It has to be noted, however, that this a method was used in an exploratory manner due to the fact that it has not been commonly used with children of that age. Frankly, the validity of results cannot be ensured, which will be seen in section 4.2.2. regarding the interpretation of the portrait's data.

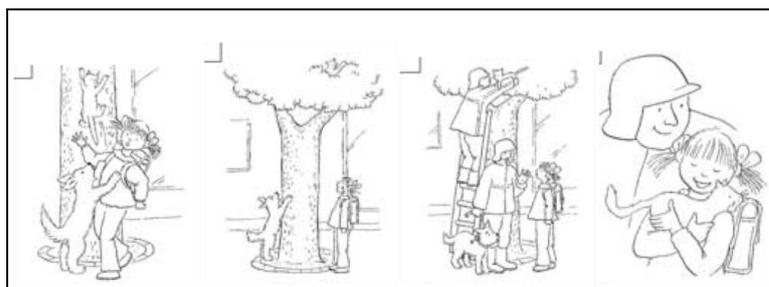
3.5.3. Picture stories

During six sessions over a period of one week (one session per participant), the children were individually asked to tell four different stories based on a series of pictures that I presented to them in chronological order. They were asked to look at the pictures and then tell a story based on them. I did not describe the pictures to the participants and did not model a story for them. The pictures were merely placed in chronological order in front of the participant and the participant was asked to look at the pictures and to tell me the story portrayed by them. The purpose of the story-elicitation activity was to engage the participants in a conversation about topics with which they would be familiar, in a situation in which they are able to talk freely and describe what they see while using their own words. In this way, a structured atmosphere was created where each participant had equal opportunity for codeswitching. The sessions were audio-recorded after which the data was transcribed. The four picture series used in the sessions are presented below:

The first series (retrieved from <http://files.schulbuchzentrum-online.de/onlineanhaenge/files/112080-1-1.jpg>) consists of five pictures of a boy doing laundry. The second picture series (retrieved from http://www.finken.de/media/musterseiten/1425_02.pdf) shows a girl whose cat is saved by a firefighter. The third series (retrieved from [http://www.zaubereinmaleins.de/kommentare/der-kleinertorwartkoenig-bildergeschichte254/](http://www.zaubereinmaleins.de/kommentare/der-kleinertorwartkoenig-bildergeschichte....254/)) shows a boy receiving, opening and then enjoying a present in the form of a soccer uniform. The last picture series (retrieved from <http://sugarfrostedgoodness.blogspot.com/2009/11/without-words.html>) shows a father trying to teaching his son how to ride a bicycle. These picture series are presented below in the mentioned order.



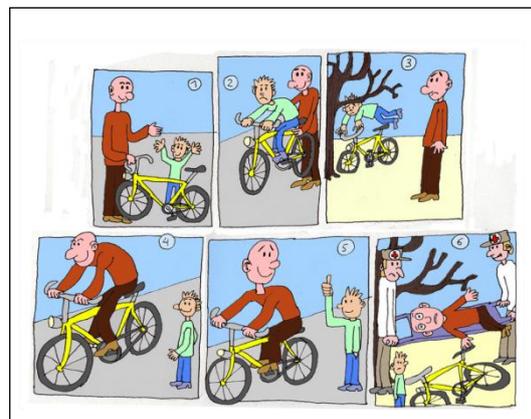
Picture series 1: Boy doing laundry



Picture series 2: Cat being rescued



Picture series 3: Boy receiving soccer uniform



Picture series 4: Riding lesson

3.6. Data analysis procedure

Firstly, the questionnaires and the drawings were evaluated. The questionnaires were evaluated based on Mayring's (2008) qualitative content analysis. The variables that were obtained by means of the analysis were used as categories, and tables were filled in for each of the participating children in order to assign them to their bilingual

language acquisition types (see section 2.2.3). The language portraits added to the language profiles of the participants and revealed the children's preferred language, based on the manner in which they coloured in the drawing of the outline of a human body. On the basis of the information obtained from the questionnaires and language portraits, a comprehensive language profile of each participant was established and the dominant language for each child was identified.

By means of this analysis, the participants were categorised in terms of Romaine's (1995) classification of bilingual acquisition in childhood (see section 2.2.3) and were placed into groups according to the language input they receive at home. All further data material was analysed according to these bilingual language acquisition types. The participant constellation was as follows: two participants of Type 1, two participants of Type 8, one participant of Type 3, and one participant of Type 7.

The recordings, and thus all utterances, made by the participants during the formal and informal sessions were transcribed using EXMARaLDA (see <http://www.exmaralda.org>) as a software tool. EXMARaLDA is a free software program that can be easily combined with the use of other transcription methods such as HIAT (see http://www1.uni-hamburg.de/exmaralda/files/azm_56.pdf). Transcriptions were fed into the partitur notation and were edited accordingly. Additionally, each sequence that contained codeswitches was transcribed separately using ordinary orthography. Gaps and pauses were marked accordingly using the notation system proposed in HIAT. The phonetic analysis of the provided speech material was excluded from the transcription. Note that unintelligible speech data such as noises and sounds were excluded from the transcriptions. All utterances that contained lexical, syntactic or grammatical elements from both languages were marked as codeswitches. Thus, for the purpose of the analysis, all utterances that were clearly English or German and contained elements from the other language were marked as codeswitches.

A further step was to annotate the codeswitches for frequency. The number of utterances for each bilingual language acquisition type was calculated and the number of codeswitches employed by participants representing each type was identified. The number of utterances was then put in relation to the number of codeswitches that were made by participants of each bilingual language acquisition type.

After the codeswitches had been annotated for frequency, the codeswitching types that occurred in the data were identified. In this regard, the codeswitches in the transcripts were further marked as either intersentential, intrasentential or intraword switches (as outlined in section 2.3.3).

The next step was to analyse the codeswitches qualitatively in terms of Myers-Scotton's (1993) MLFM introduced in section 2.3.5, in order to apply principles of the model to the collected data. However, when transcribing the data and placing it in relation to the theoretical framework, I found that the MLFM was not an appropriate framework for the present study for one particular reason: When applying the MLFM, a first step is to identify the ML of the speech data. The ML throughout all data material for this study (with one exception) was German. However, during the structured sessions, the nature of which was determined by the setting, the participants spoke German only, employing codeswitching from German to English but never vice versa.

By contrast, the data that was recorded during the participants' playtime consisted of some samples where English was identified as the ML. However, these examples did not contain any codeswitching at all. In short, all children, regardless of whether English or German was their dominant language and therefore their desired ML, switched from German to English only and not vice versa. Only one exception, where intersentential codeswitching from English to German occurred, was found. However, no grammatical constraints underlie intersentential codeswitching, and the MLFM can therefore not be applied to such codeswitching. Hence, this one exception is not subject to analysis in the framework of the MLFM. In addition, this instance of intersentential codeswitching occurred in the data of the Language Acquisition Type 3 participant, who is a mother-tongue speaker of German with only limited ability in English.

Hence, in some cases, the ML on the surface was not the desired ML of the participants in the sense of being the children's dominant language. The children who have had only limited exposure to German (such as the participants representing Language Acquisition Type 8), in particular, could not have not been categorised as using German as their dominant language even if German surfaced as the ML in the recorded speech samples. As for the MLFM, it is the case that the ML need not

always be the dominant language. However, the ML is usually identical to the speakers' mother tongue as they must demonstrate more ability in their ML than in their EL in order to follow the principles of the MLFM (Myers-Scotton 1993). The Language Acquisition Type 8 participants (i.e., successive bilinguals), in particular, cannot be expected to show higher skills in German than in English after only a brief period of exposure to German.

In the present study, Myers-Scotton's (1993) MLFM could have been applied to analyse the complete corpus, in an attempt to prove whether or not the examples violate either one of the proposed principles in the MLFM when German surfaces as ML. However, I would not receive satisfactory results as they would be one-sided, with examples of only German surfacing as ML.

The inappropriateness of the MLFM as a framework in which to analyse my data was unpredictable. Consequently, I decided to apply the grammatical constraints proposed by Poplack (1980), as outlined in section 2.3.4, instead as they do not distinguish between the two languages involved in the utterances. Therefore all codeswitches found in the present data were analysed in terms of Poplack's (1980) grammatical constraints to determine whether the participants met the conditions of the Free Morpheme Constraint and/or the Free Equivalence Constraint.

A further step was to analyse the codeswitches in terms of function, as discussed in section 2.3.8. The following categories were used for the purpose of this thesis:

- (i) skilled codeswitching: codeswitching for filling lexical gaps, for initiated self-repair and for indicating language preference,
- (ii) situational codeswitching: codeswitching for reacting to a change in topic, setting or addressee,
- (iii) stylistic codeswitching: codeswitching for effect (marking types of discourse),
and
- (iv) unintentional codeswitching: codeswitching for fun.

Finally, frequency, codeswitching types and function of their use were compared among the four different language acquisition types. Various proportions were calculated (see section 4.3ff.) to provide an answer to the research question (see section 1.2).

3.7. Summary

In summary, the participants of this study were six five- to six-year-old German-English bilingual children of various bilingual language acquisition types who all attended the same German kindergarten. Their parents completed detailed language background questionnaires, the participants created language portraits, and speech samples were collected in both structured and unstructured settings. The samples were transcribed, and instances of codeswitching were identified. These instances were tallied, and every switch was classified according to its type and function(s). The data from the language background questionnaire and language portrait was then analysed in relation to the frequency and type of their codeswitching, in order to answer the research question. The results of the data analysis will be outlined in detail in the following chapter.

Chapter 4: Data Analysis

4.1. Introduction

This chapter reports on the results of the data analysis, including the frequency, type and function of codeswitching as outlined in chapter 2 and section 3.6. In this chapter, the participants will be introduced individually by means of descriptive profiles, which are based on the information contained in the parental questionnaires and the participants' language portraits. The chapter further provides a calculation of the amount of codeswitching that was found in the recorded speech as well as an explanation of the different codeswitching types, their grammatical analysis and the function of their use.

Firstly, the participants will be introduced and categorised according to their bilingual language acquisition type (see section 2.2.3). Secondly, a summary of the data will be given in terms of frequency of codeswitching. In addition, a distribution of the different codeswitching types will be presented and will be illustrated with examples. Next, the codeswitches will be analysed according to Poplack's (1980) grammatical constraints as outlined in section 2.3.4.

Then, the function of the individual switches will be identified (see section 2.3.8). The results of the analysis will be used further to compare the participants according to their bilingual language acquisition types in order to address the research question presented in section 1.2.

4.2. Participants' language profiles

The participants' language profiles were established based on the information obtained from the questionnaires and the language portraits that the children created. The participants all speak at least two languages, namely German and English, but show differences in the length of exposure to these languages. The following main variables were obtained from the questionnaires:

- (i) the mother tongue (henceforth also L1) and second language (L2) of the participants' parents;

- (ii) the strategy the parents use when raising their children (type of bilingual acquisition in childhood);
- (iii) the educational background of the parents;
- (iv) the language in the home environment;
- (v) the participants' lengths and duration of language exposure (the participants' L1 and L2);
- (vi) the participants' additional sources of language input (that is, apart from the home environment); and
- (vii) the participants' language of interaction (based on frequency of use of each language in various settings).

For the speech data analysis and the comparison between the different bilingual language acquisition types, the variables in (i), (ii), (iv), (v), (vi) and (vii) were of importance. The third variable simply added to the complete language profile of each participant but did not receive any further attention and was considered to be irrelevant for the purpose of the study. In order to analyse and compare the codeswitching behaviour among the children, the participant constellation given in table 2 was obtained:

Participant	Type	L1	Parent's L1		Additional sources of input (L1+L2)	Home language	Language of interaction
			mother	father			
Ally EE	8	English	English	English	TV, books, story telling	English	English
Rosa EE	8	English	English	English	TV, books, story telling	English	English
Mo EG	1	English and German	German	English	TV, books, story telling	English and German	English and German
Neal EG	1	English and German	German (and English)	English	TV, books	English and German	English and German
Pia GG	3	German	German	German	TV, books, story telling	German	German
Hans GE	7	German	German	German	TV, books, story telling	German	German

Table 2: Summary of language background of and language input received by participants

The language portraits provided additional information and were used to establish a language profile of the participants that they created themselves, in an attempt to reveal their language preferences and dominant language as well as their emotional

attachment to their languages. Recall that they were asked to colour in the outline of a child's body according to the languages they mostly hear, speak and feel. The following sections provide a detailed language profile for each of the participating children.

4.2.1. AllyEE8⁸

AllyEE8 was 5 years 2 months old at the time of data collection and is the youngest participant. She comes from an English-only family background. Both of her parents are American and L1 speakers of English. They do not have any competence in understanding or speaking German and raised their child strictly monolingually.

AllyEE8's parents decided to send her to a German-speaking kindergarten because they wanted her to be near her best friend. The children have been at the same childcare institutions since they started attending such institutions. The best friend moved to the German-speaking kindergarten at age three, and AllyEE8 accompanied him. Since AllyEE8's parents both use their native language to interact with her, which is thus the language of the environment and AllyEE8's L1, she is considered to be Language Acquisition Type 8 for the purposes of this thesis.

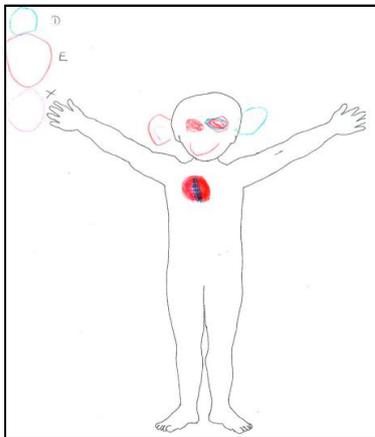
AllyEE8's proficiency in German (her L2) has been acquired predominantly through the input received at the kindergarten. This exposure to German started at the age of three when she began attending the school. Since she started at the kindergarten, she has also received additional German language input, apart from the school environment, through television, books and stories at least once a week in addition to the English input she receives from these types of sources.

Outside the school environment, however, she is mainly exposed to English. The language AllyEE8 uses when interacting with friends and family members outside the school environment is English, with the use of German being a very rare occurrence.

⁸ Each participant was given a code name. The code name contains a pseudonym (in this case, *Ally*), followed by an abbreviation of languages spoken to the participant by the parents (in this case, *EE* for English spoken by the mother and English spoken by the father). This is followed by the bilingual language acquisition type (see Romaine 1995), discussed in section 2.2.3 (in this case 8, which indicates that the participant is a successive bilingual).

She is exposed to isiXhosa when her nanny takes care of her. However, AllyEE8 does not speak isiXhosa and shows no signs of understanding the language; she communicates with her nanny in English. For the purposes of this thesis, the influence of isiXhosa is thus considered to be irrelevant. Based on her language background, AllyEE8 is considered to be a successive and dominant bilingual of Language Acquisition Type 8, as also stated above.

In her drawing, AllyEE8 used the colours blue for German, red for English and pink for isiXhosa. She indicated that she hears all three languages by drawing her ears in blue, red and pink (with the red “English” ear having a pink “isiXhosa” inner drawn inside of it). Her mouth, which symbolises the language that she speaks the most, is red for English. Her heart, reflecting the language in which she feels, is mostly red with a little bit of blue. According to her drawing, it can be concluded that AllyEE8’s dominant language is English.



Language portrait: AllyEE8

4.2.2. RosaEE8

RosaEE8 had just turned six at the time of data collection and lives with her grandparents whom she considers her parents (therefore I will be referring to them as her parents here). They were born in South Africa and are both L1 speakers of English with some Afrikaans influence. They understand some German but only within a very limited range. They have used the strategy to address RosaEE8 mainly in English, occasionally speaking to her in Afrikaans. However, the home language is English. Sometimes, her parents speak Sesotho to each other, to which RosaEE8 is exposed when she hears them talk.

Her proficiency in German was acquired through the input at the kindergarten only, where she began attending at the age of three. Her parents work at the school cafeteria at the German primary school in Cape Town, which is the reason why they wished for her to learn German. In this way, they can be near her as soon as she transfers there to primary school.

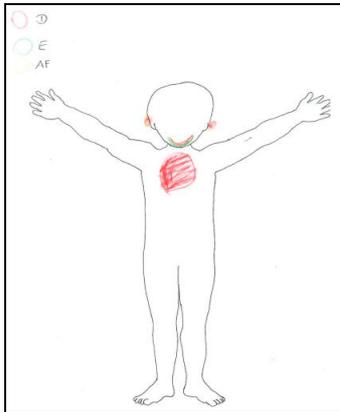
Every day (apart from school), she receives additional German and English input through television programs, books and storytelling. She does not have any siblings, and outside the school environment she mostly interacts in English with her playmates. She is exposed to Sesotho on very rare occasions, mostly when family friends are around. Due to the minimal amount of exposure to Sesotho, it is considered to be irrelevant for the purposes of this study.

Since RosaEE8's parents both use their native language to address her, which is thus the language of the environment and RosaEE8's L1, she is considered to be Language Acquisition Type 8 for the purposes of this thesis. Her language background makes her a successive and dominant bilingual of Type 8.

In her language portrait, RosaEE8 used the colours red for German, green for English and yellow for Afrikaans. She gives equal prominence to the three languages that she can speak, and accordingly colours her mouth in red, green and yellow. Her ears, by contrast, are both yellow and red only. According to her portrait, she does not hear any English. Her heart is coloured in red, for German, as this is the language she feels.

Taking the parental questionnaire into consideration, the results of RosaEE8's language portrait are difficult to analyse. RosaEE8 is mainly exposed to English, with some Afrikaans that is spoken in her home environment. That she does not consider English as one of the languages she hears may be due to the following: Ever since she started kindergarten, RosaEE8 has been exposed to German on a regular basis. She spends most of her time at the kindergarten and at aftercare, where the language of interaction is also German. Although her parents mostly address her in English, her perception is that German is the language she currently uses and is exposed to more frequently in her everyday life. Thus, it may be the language with which she identifies herself rather than English.

However, based on her drawing, it can be postulated that, although the English (L1) exposure has been longer than the exposure to German (L2), the dominant language, and thus the language she prefers, is German.



Language portrait: RosaEE8

4.2.3. MoEG1

MoEG1 was 5 years 4 months at the time of data collection. He comes from a bilingual home environment: His mother is an L1 speaker of German and his father an L1 speaker of English. His mother has some English proficiency as well; his father, however, does not speak any German and may only be able to understand some of it. They follow the one-person-one-language approach, and thus MoEG1 has been exposed to both languages to an equal extent from birth. For the purpose of this thesis, he is considered to be a participant of Language Acquisition Type 1.

MoEG1 receives German as well as English input through television programs, books and storytelling during the week. Outside the school environment, he is exposed to both English and German. It cannot be determined exactly which language is used more frequently during interactions between him and his friends. Thus, it can be assumed that the use of both languages is fairly equally distributed, making him a simultaneous and balanced bilingual of Type 1.

In his language portrait, he used the colour red for English and green for German. His language portrait can be analysed very easily as he used only red for the languages he hears, speaks and feels. Green, as a representation of German, does not appear at all. Accordingly, his ears, his mouth and his heart are coloured in red for English.

However, this result was not expected from a balanced bilingual but reflects his language preference and shows that English, for the purposes of this thesis, is in fact his dominant language.



Language portrait: MoEG1

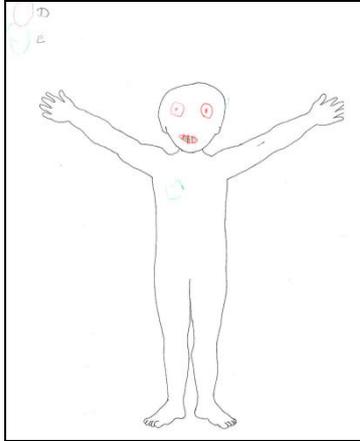
4.2.4. Neal EG1

NealEG1 was 6 years 2 months old at the time of data collection, and is a very talkative boy. He was raised bilingually, with his mother being a German-English bilingual herself and his father being an L1 speaker of English with no competence in German. His mother is a speech therapist and has followed the one-person-one-language approach very strictly. She addresses NealEG1 in German only whereas his father speaks to him in English only. Therefore, he is a participant of Language Acquisition Type 1 and has been exposed to both languages equally from birth.

At home, he is exposed to both languages equally when watching television or reading books during the week. NealEG1 is an only child, and outside the school environment, conversations between him and his friends are held either in English or in German. As in MoEG1's case, it cannot be determined which language is used more frequently outside the school environment. It can be assumed that the use of both languages is equally distributed, making him a simultaneous and balanced bilingual of Type 1.

In his language portrait, NealEG1 used red for German and green for English. He used both colours to draw his mouth, symbolising the languages he primarily speaks.

His ears and his heart are coloured in green, representing English as the language he hears mostly and feels. NealeG1 included eyes in his drawing to reflect the language he sees mostly and coloured them in red for German. For the purposes of this thesis, it can be concluded that NealeG1's dominant language is English as more body parts are green than red.



Language portrait: NealeG1

4.2.5. PiaGG3

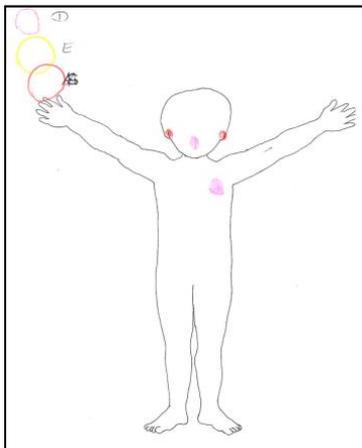
PiaGG3, who comes from a German family background, was 5 years 10 months old at the time of data collection. Her mother and father are L1 speakers of German and have used German as the language of interaction from her birth. They both have knowledge of English but have not exposed PiaGG3 to their non-native language. Their home language is strictly German; she has been and is only exposed to English outside the school environment and outside her home environment.

During the week, she receives German and occasionally English input from other sources in her home environment such as television, books and stories. During interactions with her friends and other family members, she uses German. English is used only rarely when talking to certain family friends. According to her own statement, PiaGG3 does not feel comfortable speaking English and can only understand “easy words and sentences” (personal communication, PiaGG3, April 2013). For the purposes of this thesis, she is therefore considered to be a child bilingual of Type 3.

PiaGG3 is the only child in her class whose home language is German only. All other children are exposed to at least some English in environments outside of school. German is her dominant language and she has little ability to understand and speak English, making her a dominant and successive bilingual of Language Acquisition Type 3.

In her language portrait, PiaGG3 used pink to represent German, yellow to represent English and red to represent Afrikaans. She colours her mouth and her heart in pink, symbolising that German is the language she primarily speaks and the language she feels. What is interesting to note is that she colours her ears in red, which represents Afrikaans. The reason for this may be that some of her friends and family friends with whom she interacts speak Afrikaans, or that she may hear her father speak Afrikaans to his work colleagues over the phone.

Not surprisingly, English does not feature in her drawing at all, as her home language, the language of instruction at school and her language of interaction is mostly German. Consequently, German is considered to be her dominant language.



Language portrait: PiaGG3

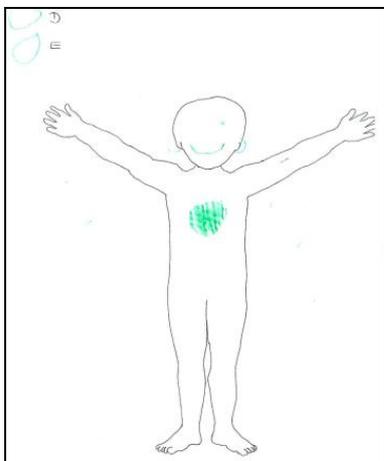
4.2.6. HansGE7

HansGE7 was 5 years 3 months at the time of data collection and, like PiaGG3, has a German language background. His mother and father are both L1 speakers of German with knowledge of English. However, unlike the parents of PiaGG3, they have used the following strategy to raise him bilingually: His mother has spoken German to him

from birth and his father has mainly addressed him in English, which is not the father's mother tongue. Therefore, he is considered to be a child bilingual of Type 7.

At home, they primarily speak German since his mother and his siblings use German to communicate with each other. He mostly interacts in German with his friends and playmates. During the week, he is exposed to German as well as English when watching television, looking at books or listening to stories at home. However, HansGE7 is exposed to English when interacting with his father and with family friends on occasion. It can be assumed that he has been exposed to a much larger amount of German than English, and thus he is a partly simultaneous but dominant bilingual of Language Acquisition Type 7. However, the English input that he has been receiving from his father cannot necessarily be deemed grammatically correct input due to the fact that English is not his father's mother tongue.

In his language portrait, HansGE7 represented German in green and English in blue. His eyes, mouth and heart are coloured in green. By contrast, one ear is coloured in green and the other in blue, showing that he divides the two languages he hears equally. This is due to the fact that his father, as well as some of his friends and playmates, address him in English. German is, however, the language that he uses and is exposed to more frequently. This is reflected in his portrait, as more body parts are green (German) than blue (English). It can be concluded that German is his preferred, and thus dominant, language for the purposes of this thesis.



Language portrait: HansGE7

In summary, the language portraits that the participants created show the following results:

Participant	Type	Dominant language
Ally EE	8	English
Rosa EE	8	German
Mo EG	1	English
Neal EG	1	English
Pia GG	3	German
Hans GE	7	German

Table 3: Type of bilingual and dominant language⁹ of participants, as determined from the language portraits

4.3. Frequency of codeswitching

The transcripts of the recorded sessions were marked for codeswitching in order to calculate the frequency of occurrence. If grammatical, lexical and/or syntactic elements of both languages occurred in a single utterance, such occurrence was coded as switching and was marked accordingly. The codeswitches found in the data were annotated for the frequency with which they occurred during the story-elicitation activity and during the participants' free-time interactions.¹⁰ After that, an analysis of the whole corpus followed to calculate the total number of codeswitches among each bilingual language acquisition type. The distribution of codeswitching found in the data will firstly be shown in terms of number of occurrences and, secondly, in terms of percentage, in order to be able to compare the results among the bilingual language acquisition types.

4.3.1. Picture story analysis

Recall that the participants were shown four different series of pictures and were asked to tell the stories that the pictures reflect. The sessions were audio-recorded and transcribed afterwards. Each recording was between 5 and 10 minutes long.

For each of the bilingual language acquisition types, the following distribution between the number of utterances and the number of codeswitches was found:

⁹ The participants' dominant language is not to be confused with their L1 and does not necessarily mean that they show more proficiency in that language. Rather, it reflects their language preference.

¹⁰ In this way, it can eventually be determined – out of personal interest – whether there may be a difference in the amount of codeswitching in structured and unstructured settings.

The pair of Language Acquisition Type 1 (MoEG1; NealEG1) produced 142 utterances with a total of 5 switches from German to English, whereas the pair of Language Acquisition Type 8 (AllyEE8; RosaEE8) produced 108 utterances with 7 switches from German to English. The participant of Language Acquisition Type 7 (HansGE7) produced 106 utterances with 1 switch from German to English. The participant of Language Acquisition Type 3 (PiaGG3) produced 40 utterances and did not employ any codeswitching. Figure 1 indicates the total number of utterances vs. the number of utterances containing codeswitching.

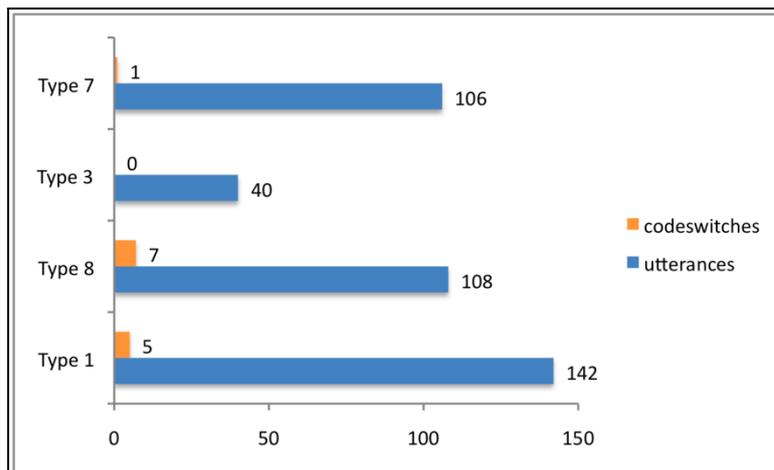


Figure 1: Analysis of pictures story telling: Distribution of codeswitching amongst total number of utterances

The results of the picture story analysis shall be summarised in terms of percentage: Type 8 bilinguals showed a switching percentage of 6.48%. The switching percentage of Type 1 was 3.52%. The participant of Type 7 had a switching percentage of 0.94%, and the participant of Type 3 showed no switching. The analysis of the individual speech data that was recorded during the participants' free-time activities will be presented in the following section before a more detailed analysis of the whole corpus follows.

4.3.2. Analysis of individual speech data

During the period of data collection, the participating children were recorded during free play for one hour each. Due to the study's time frame and due to the kindergarten's daily schedule, more than one hour of such recording per participant was not possible. The recordings of the participants were made while they were being

observed during their free and activity time in which they played games, played with their friends, carried out activities or did creative work. (These recordings were in addition to those made during the story-telling activity).

When they played with their friends, the participants usually talked more frequently than when they played games, carried out activities or did creative work. During the times when they were not playing with their friends, they played silently without producing any speech at all. Occasionally, they engaged in a conversation with me and asked questions. During the time of observation, the participant constellation as well as the activity the children were engaged in, changed numerous times. Consequently, the number of utterances they produced was dependent on the number of interlocutors who were involved in the conversation as well as the specific activity in which the children were engaged. The analysis of the recorded speech data rendered the results as represented in figure 2:

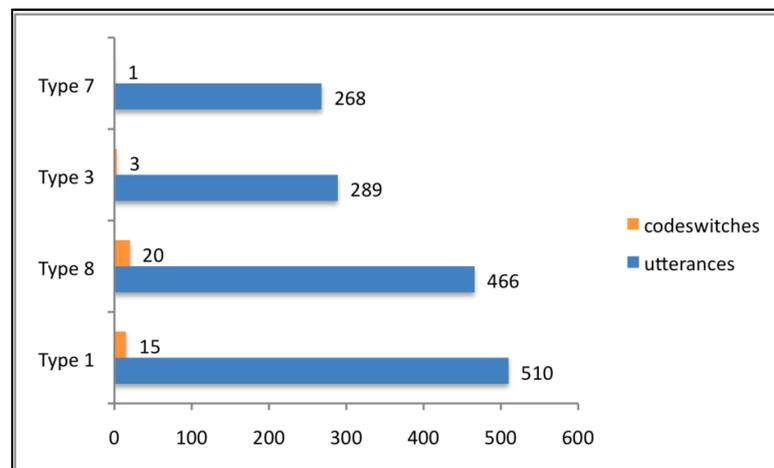


Figure 2: Analysis of free speech data: Distribution of codeswitching amongst total number of utterances

The pair of Language Acquisition Type 1 (MoEG1; NealEG1) produced 510 utterances, employing 15 switches from German to English. The pair of Type 8 (AllyEE8; RosaEE8) produced 466 utterances, employing 20 switches from German to English. The participant of Type 3 (PiaGG3) produced 289 utterances, employing 3 codeswitches of which 2 were from English to German and 1 from German to English. The participant of Type 7 (HansGE7) produced 268 utterances and switched once, from German to English.

The switching percentage for the recordings ranged from 0.37% for the participant of Type 7 to 4.29% for the participants of Type 8. Type 3 showed a percentage of 1.04% and the participants of Type 3 had a switching percentage of 2.94%. An analysis of the whole corpus will be provided in the following section.

4.3.3. Frequency of codeswitching in the whole corpus

The distribution of codeswitching for the whole corpus was as follows: The data provided a total of 52 codeswitches in 1929 utterances, which is an overall percentage of 2.7%. Since this study is concerned with a comparison of the different types of bilingual acquisition in childhood, the distribution of codeswitching will now be outlined according to bilingual language acquisition type:

The pair of Language Acquisition Type 1 (MoEG1, whose mother speaks her L1 German to him and his father his L1 English; NealEG1 whose bilingual mother speaks to him in German only and his father in his L1 English) produced 652 utterances, employing 20 switches from German to English. The pair of Type 8 (AllyEE8 and RosaEE8, whose parents address them in the parents' L1 English) produced 574 utterances, employing 27 switches from German to English. The participant of Type 3 (PiaGG3, whose parents both speak their L1 German to her) produced 329 utterances, employing 3 codeswitches of which two were from English to German and one from German to English. The participant of Type 7 (HansGE7, whose mother speaks L1 German to him and whose father speaks mainly his L2 English but also at times his L1 German to him) produced 374 utterances, employing 2 switches from German to English.

Figure 3 below shows the numerical distribution of codeswitching in the whole corpus. Each codeswitch that occurred has to be seen in relation to the number of utterances produced.

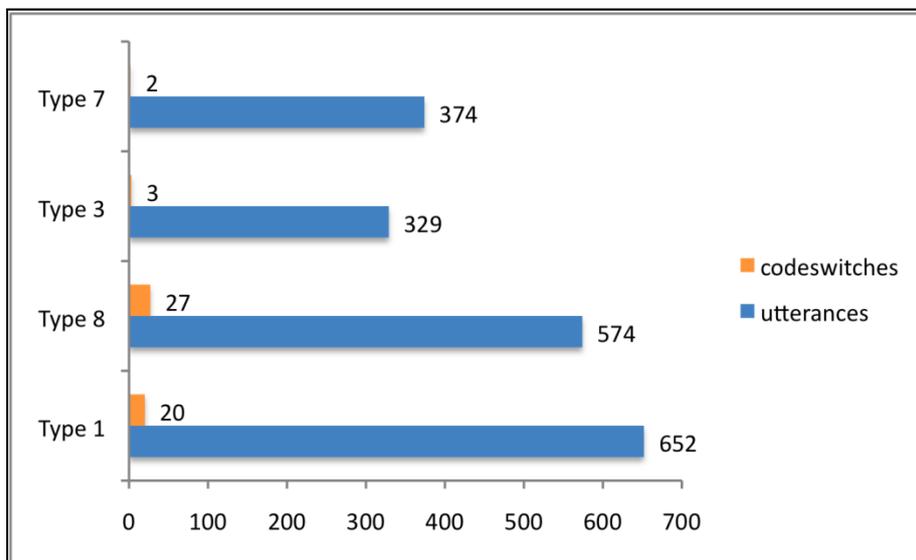


Figure 3: Distribution of total number of codeswitching in whole corpus

As shown in figure 3, the participants of Language Acquisition Type 8 had a higher overall switching percentage than did Type 1, and Type 1 had a higher overall percentage than Type 3. The participant of Type 7 had the lowest overall switching percentage. The distribution of codeswitching in terms of percentage is summarised in figure 4:

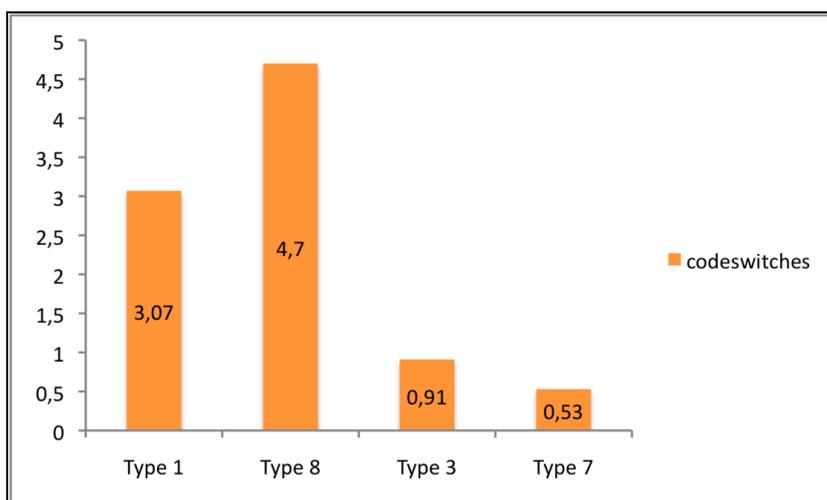


Figure 4: Distribution of codeswitching in whole corpus (in %)

4.4. Analysis of codeswitching types

In order to identify the codeswitching types that occurred in the data, the orthographic transcriptions of the recordings (of the free play and structured sessions) were consulted. All occurrences of codeswitching were categorised according to the

codeswitching types outlined in section 2.3.3. The three different types of codeswitching identified were (i) intersentential codeswitching, (ii) intrasentential codeswitching, and (iii) intraword codeswitching (as a subcategory of intrasentential codeswitching). The different codeswitching types that were identified will be presented for each language type in terms of number and percentage and will be illustrated with examples.¹¹

4.4.1. Distribution of codeswitching types in Language Acquisition Type 1

As outlined in section 4.3.3, the participants of Language Acquisition Type 1 produced 652 utterances and employed 20 switches. Fifteen (75%) of their switches are intrasentential switches. A word-for-word gloss as well as my own translation is provided for each example below, where the German is again in uppercase and the English in lowercase:

(11) *ER HAT EIN GESCHENK, 'N Soccer-TSHIRT,¹² HAT ER; ER SPIELT FUßBALL UND ER IST goalie.* (MoEG1)

he has a present a soccer-T.shirt has he he plays soccer and he is goalie
[= He has a present, a soccer T-shirt, he has; he plays soccer and he is goalie.]

(13) *DARF ICH DIE Puppet-Show MACHEN?* (MoEG1)

may I the puppet show do
[= May I do the puppet show?]

(14) *DANN MACHEN WIR JEDEN TAG Puppet-Show MIT DEM TEDDY!* (MoEG1)

then do we every day puppet show with the teddy
[= Then we do a puppet show with the teddy every day!]

¹¹ Note that some examples may be used twice as they may contain more than one switch (of different types). If there is more than one codeswitch of a different type in one example, the one that is irrelevant will be put in parentheses.

¹² *T-shirt* does not count as codeswitching as this word is used in German equivalently.

- (15) *DANN BIN ICH DER flying cop.* (MoEG1)
then am I the flying cop
[= Then I am the flying cop.]
- (16) *ICH WOHNEN in town.* (MoEG1)
I live in town
[= I live in town.]
- (17) *ICH WAR DA IN DER submarine, BEI DEN machines UND computers.* (MoEG1)
I was there in the submarine, at the machines and computers
[= I was inside the submarine where the machines and computer are.]
- (18) *BEI MIR HÖRE ICH AM MEISTEN ENGLISCH, WEIL DER PAPA SUCHT, WEIL IM morning/WEIL ER IMMER SEIN HANDY FINDET, DA RÄUMT ER DIE GANZEN SCHRÄNKE AUS!* (NealEG1)
at me hear I the most English because the daddy looks because in morning/because he always his cell.phone finds when cleans he the whole cupboards out
[= At our house, I hear English mostly because dad looks, because in the morning/because he always finds his cellphone when he cleans out all the cupboards.]
- (19) *AUF DEM Stickytape KANN MAN NICHT ANMALEN!* (NealEG1)
on the sticky.tape can one not draw
[= You can't draw on the sticky tape!]
- (20) *DER goodie walker MUSS GROß SEIN!* (NealEG1)
the goodie walker must big be
[= The goodie walker must be big!]
- (21) *DAS SIND DIE RAUMjets.* (NealEG1)
these are the space.jets
[= These are space jets.]

(22) *LEE, KEINER GEHT IN DIE castles!* (NealEG1)

Lee nobody goes in the castles

[= Lee, nobody goes inside the castles!]

Another codeswitching type that was identified is intraword codeswitching. This type made up 20% (four) of the total switches. Here, it can be seen how English words are embedded into German sentences and are syntactically adapted accordingly. Examples (23) to (26) show which intraword switches were employed by the participants of Language Acquisition Type 1.

(23) *DANN rideN SIE.* (MoEG1)

then ride they

[= Then they ride.]

(24) *DANN rideT/d¹³ ER/DANN FÄHRT ER.* (MoEG1)

then rides he/then rides he

[= Then he rides/then, he rides.]

(25) *DU HAST GEcheated/T!¹⁴* (NealEG1)

you have cheated

[= You have cheated!]

(26) *EIN JUNGE DER KLEIDER (...4s) stapleT/d,¹⁵ GLAUB' ICH.* (NealEG1)

a boy who clothes staples think I

[= A boy who staples clothes, I think.]

The remaining switch (5%) was identified as an intersentential switch and is shown in example (27):

¹³ Here, it cannot be determined whether the participant used the German third-person singular present tense marker *-t* or the English past tense marker *-(e)d*. However, since it can be assumed that all participants have knowledge about tense-marking, it can be postulated that the German third-person singular marker *-t* is used in this case as the utterance is in the present tense rather than past tense.

¹⁴ In this case, it cannot be determined whether the participant used the voiced word-final [d], as in the English past tense marker, or if he used the voiceless word-final [t] as in the German Plusquamperfekt *ICH HABE GE___T* to mark the past participle, seeing that both cases refer to past tense.

¹⁵ See footnote 13.

(27) *DAS IST MEINS, Max! Give it back to me!* (NealEG1)
 that is mine Max give it back to me
 [= It's mine, Max! Give it back to me!]

4.4.2. Distribution of codeswitching types in Language Acquisition Type 8

The participants of Language Acquisition Type 8 produced 574 utterances, providing 27 codeswitches of which 20 switches (74.1%) were intrasentential codeswitches as in examples (28) to (44) below:

(28) *WIR HABEN NUR EIN balcony UND UNSER HAUS IST EINE flat WO VIELE LEUTE LEBEN.* (AllyEE8)
 we have only a balcony and our house is a flat where lots of people live
 [= We only have a balcony, and our house is a flat where lots of people live.]

(29) *DANN HAT ER EIN TSHIRT GEKRIEGT, FÜR Soccer UND DANN GEHT ER ZUM Soccer UND DANN SPIELT ER.* (AllyEE8)
 then has he a T-shirt got for soccer and then goes he to soccer and then plays he
 [= Then he got a T-shirt, for soccer, and then he goes to soccer and then he plays.]

(30) *ER HAT NIX AN, NUR HIER: teared pants.* (AllyEE8)
 he has nothing on only here teared pants
 [= He is not wearing anything, only here: torn pants.]

(31) *MEIN NAME IST SEHR easy.* (AllyEE8)
 my name is very easy
 [= My name is very easy.]

(32) *ICH SCHREIB' MEINEN NAMEN IMMER IN English.* (AllyEE8)
 I write my name always in English
 [= I always write my name in English.]

(33) *ICH HAB' IN MEINEM HAUS EIN movie: the Shark Tail.* (AllyEE8)

I have at my house a movie the shark tail

[= I have a movie at my house: the Shark Tail.]

(34) *DER goodie HEIßT LENNY UND DER baddie HEIßT DAN.* (AllyEE8)

the goodie is.called Lenny and the baddie is.called Dan

[= The goodie is called Lenny and the baddie is called Dan.]

(35) *MEIN BRUDER HEIßT MATTHEW, DAS IST EIN English name.* (AllyEE8)

my brother is called Matthew that is an English name

[= My brother is called Matthew, that's an English name.]

(36) *ICH WOHNE IN EINER flat, DA HAT JEMAND EINEN HUND.* (AllyEE8)

I live in a flat there has someone a dog

[= I live in a flat where someone has a dog.]

(37) *EINE VON DEN ladies IN UNSEREM HAUS HAT UNSER AUTO* (AllyEE8)

(gecrashed).

one of the ladies in our house has our car crashed

[= One of the ladies at our house crashed our car.]

(38) *ES WAR NUR EIN KLEINER scratch.* (AllyEE8)

it was only a small scratch

[= It was only a small scratch.]

(39) *EIN PULLOVER, HIER DRINNE, IN DER box, UND DANN* (RosaEE8)

SPIELT ER FUßBALL.

a pullover here inside in the box and then plays he soccer

[= A pullover, inside here, in the box and then he plays soccer.]

(40) *ICH KENNE this.* (RosaEE8)

I know this

[= I know this.]

(41) *MACH DIE lunchbox ZU!* (RosaEE8)

make the lunchbox closed

[= Close the lunchbox!]

(42) *MORGEN GEHE ICH ZUM Circus.* (RosaEE8)

tomorrow go I to the circus

[= Tomorrow, I am going to the circus.]

(43) *NOCH EINE MAUS AUF DEN shoulders?* (RosaEE8)

another one mouse on the shoulders

[= Another mouse on your shoulders?]

(44) *UND DANN, look here, DA BIN ICH (geslipped).* (RosaEE8)

and then look here there am I slipped

[= And then, look here, there I have slipped.]

Five (18.5%) of the 27 switches were identified as intraword switches as shown in the examples below:

(45) *ER ironeT/d¹⁶ DIE KLEIDER.* (AllyEE8)

he iron the clothes

[= He irons the clothes.]

(46) *EINE VON DEN LADIES IN UNSEREM HAUS HAT UNSER* (AllyEE8)

AUTO GEcrashed/T.¹⁷

one of the ladies in our house has our car crashed

[= One of the ladies at our house crashed our car.]

(47) *ABER ICH HAB DEN NIEMALS GEpetted/T.¹⁸* (AllyEE8)

but I have it never petted

[= I have never petted it.]

¹⁶ See footnote 13.

¹⁷ See footnote 14.

¹⁸ *ibid.*

(48) *ICH HAB' DAS SCHON MAL GEtasted/T.*¹⁹ (AllyEE8)

I have it already tasted

[= I once tasted it.]

(49) [...] *DA BIN ICH GEslipped/T!*²⁰ (RosaEE8)

there am I slipped

[= I have slipped!]

The remaining two (7.4 %) switches were intersentential switches:

(50) *ER NIMMT DIE KLEIDER UND DANN/UND DANN, NEE, he's* (RosaEE8)

then taking the iron.

he takes the clothes and then/and then no he's then taking the iron

[= He is taking the clothes and then/and then, no, he's then taking the iron.]

(51) *MACH DIE (lunchbox) ZU! We haven't prayed yet!* (RosaEE8)

make the lunchbox closed we haven't prayed yet

[= Close your lunchbox! We haven't prayed yet!]

4.4.3. Distribution of codeswitching types in Language Acquisition Type 3

The one participant of Type 3 employed three codeswitches in 329 utterances of which two (66.6%) were identified as intersentential switches from English to German, as in examples (52) and (53) below:

(52) *Let me see! OH, EIN HUND!* (PiaGG3)

let me see oh a dog

[= Let me see! Oh, a dog!]

(53) *And what is this/WAS IST DAS?* (PiaGG3)

and what is this/what is this?

[= And what is this/what is this?]

¹⁹ See footnote 14.

²⁰ *ibid.*

The remaining switch (33.3%) was an intrasentential switch from German to English given in (54) below:

(54) *DOCH, WIR LASSEN you eat!* (PiaGG3)

indeed we let you eat

[= It is indeed the case that we let you eat!]

4.4.4. Distribution of codeswitching types in Language Acquisition Type 7

The one participant of Type 7 provided two codeswitches in 374 utterances. Both codeswitches (100%) are intrasentential switches, as examples (55) and (56) below illustrate:

(55) *DANN HAT ER ES ANGEZOGEN UND DANN WAR ER* (HansGE7)

goalkeeper.

then has he it put.on and then was he goalkeeper

[= Then, he put it on and then he was goalkeeper.]

(56) *GUCK MAL, DIE HAT boobies!* (HansGE7)

Look a bit she has boobies

[= Look, she has boobies!]

In summary, the data analysis shows that intrasentential codeswitches occurred more frequently than did the other two types of switches. Only the one Language Acquisition Type 3 participant employed less intrasentential codeswitching and more intersentential codeswitching. However, since the number of codeswitches for this participant is generally low (only three codeswitches in 329 utterances), it can be concluded that intrasentential codeswitching is the type of codeswitching employed most frequently among the participants. Figures 5 and 6 summarise the types of codeswitching per bilingual language acquisition type.

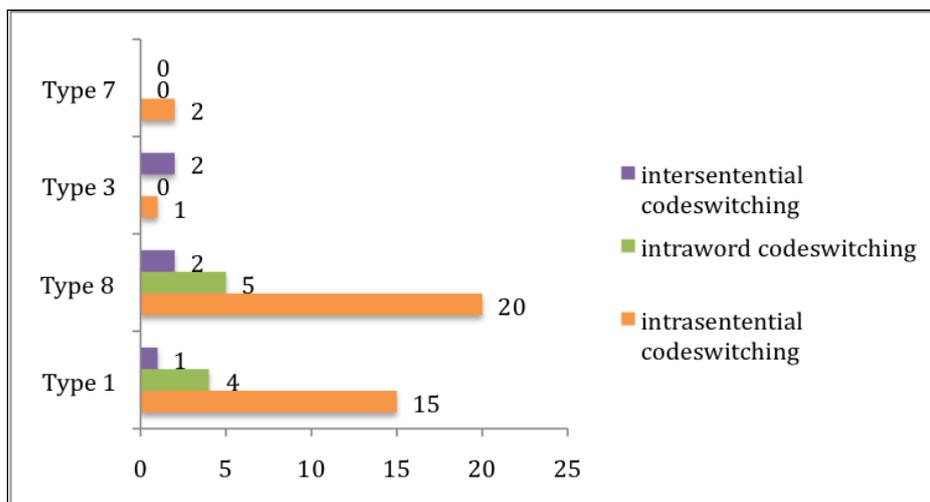


Figure 5: Distribution of codeswitching types in terms of number

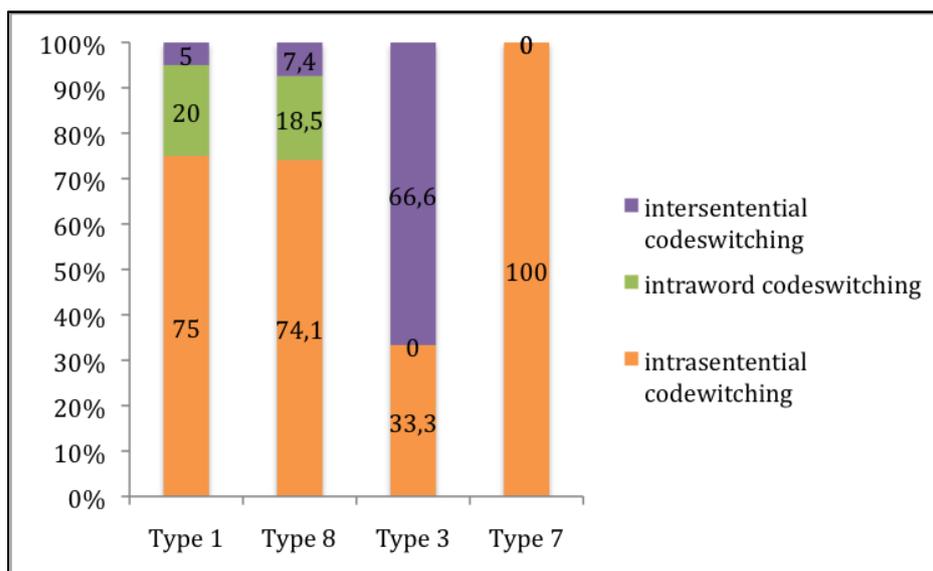


Figure 6: Distribution of codeswitching types (in %)

4.5. Grammatical analysis using Poplack’s constraints

Since intersentential codeswitching is not determined by any syntactic constraints, the grammatical analysis using Poplack’s (1980) constraints only accounts for intrasentential codeswitches (including intraword switches), which are, as concluded in section 4.4.5, the most frequent type of codeswitching that occurred in the data. Poplack’s (1980) constraints are used as a theoretical framework in this thesis; specifically, I ascertained whether the structural properties of the codeswitches meet the conditions of Poplack’s proposed Free Morpheme and Free Equivalence Constraints.

As stated in section 2.3.4, Poplack (1980) claims that intraword switches, as a subcategory of intrasentential codeswitching, are only allowed if they are phonologically adapted to the host language. Consequently, in order to meet the conditions of the Free Morpheme Constraint, the bound morpheme must be assimilated phonologically to the content morpheme to which it is attached. However, almost all of the intraword switches found in the data violate the Free Morpheme Constraint: The English content morphemes used in the examples (23) through (26) and (45) through (48) (repeated below for ease of reference) are not assimilated phonologically; they are, however, attached to a German function morpheme. Example (47) along with example (49) show English content morphemes attached to a German system morpheme; phonologically, however, it cannot be determined whether it is German or English, as the pronunciation in these cases is the same in both languages.

(23) *DANN rideN SIE.* (MoEG1)

then ride they

[= Then they ride.]

(24) *DANN rideT ER/DANN FÄHRT ER.* (MoEG1)

then rides he/then rides he

[= Then he rides/then he rides.]

(25) *DU HAST GEcheated/T!*

you have cheated

[= You have cheated!] (MoEG1)

(26) *EIN JUNDER DER KLEIDER (...4s) stapleT, GLAUB ICH.* (NealEG1)

a boy who clothes staples think I

[= A boy, who staples clothes, I think.]

(45) *ER ironeT/d DIE KLEIDER.* (AllyEE8)

he iron the clothes

[= He irons the clothes.]

(46) *EINE VON DEN (ladies) IN UNSEREM HAUS HAT UNSER AUTO GEcrashed/T.* (AllyEE8)

one of the ladies in our house has our car crashed
 [= One of the ladies at our house crashed our car.]

(47) *ABER ICH HAB DEN NIEMALS GEpetted/T.* (AllyEE8)

but I have it never petted
 [= But I have never petted it.]

(48) *ICH HAB DAS SCHON MAL GEtasted/T.* (AllyEE8)

I have it already tasted
 [= I once taste it.]

(49) [...] *DA BIN ICH GEslipped/T!* (RosaEE8)

there am I slipped
 [= there, I have slipped!]

The English content morphemes, which are used in the examples above, are (except for examples (47) and (49)) pronounced in English. The following phones are not assimilated into the German language: In examples (23) and (24), the pronunciation of /r/ and /aɪ/ violate the Free Morpheme Constraint. The pronunciation of /tʃ/ in example (25), /eɪ/ in example (26), /aɪ/ and /r/ in example (45), /r/ and /æ/ in example (46), and /eɪ/ in example (48) all violate the Free Morpheme Constraint as these phones are clearly pronounced in English. None of these elements have undergone a process of phonological adaptation as the Free Morpheme Constraint requires. Therefore, it can be postulated that Poplack's (1980) Free Morpheme Constraint does not hold true for these examples found in the data.

Although there are many similarities between the grammars and lexicons of German and English, contrasts between the two languages, such as differences in inflectional morphology as well as derivational morphology and lexical semantics, have evolved due to language change and language shift. Case syncretism and thus the loss of certain inflectional morphology in English, along with the semantic and syntactic conditions of German, is one of the main consequences that the change has brought about (Hawkins 1983:11). In general, English uses a simplified inflectional morphology with simple sentence structure. German, by contrast, has a more complex

morphology with tighter restrictions with regard to word order (Hawkins 1983:6ff.). Thus, there is a tension between the relative simplicity of the one language and the relative complexity of the other language (Hawkins 1983).

These contrasts are of importance in order to determine whether or not the examples of the present study meet the conditions of Poplack's (1980) Equivalence Constraint. For this purpose, the examples in (23) through (26) and (45) through (49) shall be examined in further detail in terms of their surface structure.

In example (23), the English verb *to ride* is inflected with the German system morpheme *-en* to mark the third-person present tense plural form. The sentence follows German word order. A sentence such as **Dann sie riden* (23) would follow English sentence structure but violate German syntactic rules. Example (24) cannot be considered here, as MoEG1 realises his switch and "corrects" himself. He then continues to use German morphemes according to German sentence structure. If he had, however, continued with the original utterance, **DANN ER FÄHRT* (24), it would have been grammatically correct in English but would violate German syntactic rules. In examples (26) and (45), the English verbs *to staple* and *to iron* are inflected with the German marker *-t*, used to mark third-person present tense singular forms. The sentences are produced within the syntactic frame of German grammar. Examples (46), (47), (48) and (49) use the German perfect tense circumfix *GE- -T* attached to English lexemes. However, the following examples would all follow English sentence structure but are grammatically incorrect in German:

**Ein Junge, der staplet Kleider, ich glaube* (26) [= A boy, who staples clothes, I think]

**[Eine von den ladies in unserem Haus] hat gecrashed unser Auto* (46) [= [one of the ladies at our house] has crashed our car]

**Aber ich hab niemals gepetted ihn* (47) [= But I have never petted him]

**Ich habe schon mal getasted es* (48) [= I have already once tasted it]

** Da, ich bin geslipped* (49) [= Then I have slipped]

Thus, they violate the Equivalence Constraint, which is only met if the surface structures of both languages overlap and switches occur at points where the elements do not violate a syntactic rule of either language (Poplack 1980:585ff.).

Examples (25) and (45), however, do not violate the Equivalence Constraint, as the word order in these sentences is the same for both languages and the structure of both languages maps onto each other:

(25) *DU HAST GEcheated/T!*²¹

you have cheated

[= You have cheated!]

(45) *ER ironeT/d²² DIE KLEIDER.*

he iron the clothes

[= He irons the clothes.]

Examples (11) through (22), (28) through (44) and (54) through (56) were identified as intrasentential codeswitches and are thus subject to the grammatical analysis under Poplack's (1980) model. However, these examples consist of single-word switches and free morphemes that are embedded into the structure of the host language. They do not violate the Free Morpheme Constraint, as switches before and after free morphemes are permitted (Muysken 2000:14). Furthermore, most of them meet the conditions of the Free Equivalence Constraint, as the syntactic structure is not violated. Examples (56), (43) and (16) below are grammatically correct in English as well as in German:

(56) *GUCK MAL, DIE HAT boobies/BRÜSTE!* [= Look, she has boobies!]

(43) *NOCH EINE MAUS AUF DEN shoulders/SCHULTERN?* [= Another mouse on your shoulders?]

(16) *ICH WOHNEN IN town/DER STADT.* [= I live in town.]

Here, the syntactic structure of neither English nor German is violated and the items in question could easily be replaced with an element of the other language. However,

²¹ See footnote 14.

²² See footnote 13.

examples (12), (13), (19) and (55) do not meet the conditions of the Equivalence Constraint, as outlined below:

* Ich habe schon mal gesehen einen echten Maulwurf (12) [= I have already once seen a real mole]

* Darf ich machen das Puppen-Theater (13) [= May I do the puppet show?]

* Auf dem Tesafilm man kann nicht anmalen (19) [= On the sticky tape one cannot draw]

* (...) und dann, er war Torwart (55) [= (...) and then he was goalkeeper]

These sentences would follow English sentence structure but violate German syntactic rules in terms of the subject-verb order.

As a result, one can conclude that, based on the grammatical analysis of the data provided, Poplack's (1980) constraints cannot be applied universally. Counterexamples were found in the German-English data and were analysed and discussed accordingly.

4.6. Grammatical analysis under Myers-Scotton's MLFM

At this point, I would like to test Myers-Scotton's (1993) MLFM. Even though, as stated in chapter 3, it is not necessarily an appropriate model for the analysis of the present data, I would like to analyse a few examples according to her model in order to verify whether or not her conditions are more applicable than Poplack's (1980) constraints.

When analysing the instances of codeswitching according to Myers-Scotton's (1993) constraints, it can clearly be seen that none of the intraword switches (examples (19) to (22) and (45) to (49)) violate the Morpheme Order Principle. This shall be illustrated below with two examples of intraword switches:

(19) *DANN rideN SIE*

[= Then, they ride.]

(48) *ICH HABE DAS SCHON MAL GETASTET*

[= I once tasted it.]

These two examples follow German morpheme order. In both cases, the English (EL) content morpheme is integrated into the sentence structure of the ML (German). The examples do not violate the System Order Principle either, as the content morphemes come from the EL (English) and the system morphemes (German tense marker) are provided by the ML (German).

The intrasentential codeswitches as seen in examples (11) to (22), (28) to (41) and (54) to (56) show that the ML (German) provides the morphosyntactic frame and the EL (English) morphemes are content morphemes which meet the conditions of Myers-Scotton's (1993) model. The four examples below illustrate this finding:

(22) *LEE, KEINER GEHT IN DIE castles!*

[=Lee, nobody goes inside the castles!]

(28) *MEIN NAME IST SEHR easy.*

[= My name is very easy.]

(51) *DOCH, WIR LASSEN YOU eat!*

[= It is indeed the case that we let you eat!]

(52) *DANN HAT ER ES ANGEZOGEN UND DANN WAR ER goalkeeper.*

[= Then he put it on and then, he was goalkeeper.]

Thus, none of the examples found in the data violate either one of the proposed principles under Myers-Scotton's (1993) MLFM. The predictions of Myers-Scotton's (1993) model have been proven for all instances that were found in the data, whereas numerous counterexamples were found when analysing the data according to Poplack's (1980) constraints. Consequently, one can conclude that Myers-Scotton's (1993) model has more universal value than Poplack's (1980) constraints.

4.7. Codeswitching functions

In section 3.6, the relevant functions of codeswitching were outlined, and it was said that the data of the current study will be analysed accordingly. The four categories

that were presented in section 3.6 were skilled codeswitching, situational codeswitching, stylistic codeswitching and unintentional codeswitching. Each category will be looked at in further detail below, and the codeswitches found in the data will be assigned to one of the four categories.

4.7.1. Skilled codeswitching

The major category of codeswitching that occurred in the data was skilled codeswitching. Out of 52 codeswitches, skilled codeswitching was employed 47 times. The most observed function within this category was to fill lexical gaps (45 times). Usually children switch to their dominant language whenever they are missing the appropriate words as they have less gaps in their dominant and preferred language (Genesee 2006:53ff.). As stated in section 3.6, however, the dominant language in the data of the present study is – in some cases – only the dominant language on the surface, as it was the language determined by the setting throughout the data collection period (namely by the German kindergarten of which the official language policy is that only German may be spoken there).

Since skilled codeswitching for the purpose of filling lexical gaps was found across all bilingual language acquisition types and all participants, these findings stand in accordance with Genesee (2006:53) who states that it is the most commonly observed form of codeswitching. As for the lexical switches, all participants, regardless of their dominant language, switched from German to English only. With this in mind, it can be postulated that the lexical terms were more readily available in English at that time and that they used the English lexeme regardless of whether or not English was their desired and yet dominant language.

Another form of skilled codeswitching that was found in the data was for the purpose of initiated self-repair. This occurred twice. PiaGG3 (the participant of Language Acquisition Type 3), whose dominant language is German, switched from English to German (see example (53): *And what is this/WAS IST DAS?*) for the function of self-correction. Usually, initiated self-repairs are determined by a switch to the non-dominant language (Genesee and Sauve 2000). In this case, however, PiaGG3's language choice was determined by the addressee and then by the setting: At the time of the switch, she was playing with children whose L1 is English and she started her

sentence in English to address her English-speaking playmates. She then realised that the language required by the setting is in fact German (recall the school's German-only language policy), which initiated a self-repair and made her switch to German immediately. The same applies to example (24) (*DANN rideT/d ER/DANN FÄHRT ER*) in which MoEG1 (of Language Acquisition Type 1) realises that he is using the lexeme in the “wrong” language and self-corrects his language choice.

4.7.2. Situational codeswitching

The other category that was found across the data was situational codeswitching in order to react to an addressee change or a change of setting. This form of codeswitching was observed three times in the whole corpus, in examples (27), (51) and (52), and was employed by participants of Language Acquisition Types 1, 3 and 8. In example (27), NealEG1's codeswitch is triggered by the name *Max*, which is in fact pronounced in English [mæks] instead of in German [maks] and leads to a switch to English in order to address his English playmate accordingly: *DAS IST MEINS, Max! Give it back to me!*

Example (51) – *MACH DIE (lunchbox) ZU! We haven't prayed yet!* – evolved in a context in which RosaEE8 repeated the words of her teacher in order to remind a particular classmate to close his lunchbox because they must pray first before they may eat. Since the classmate's L1 is English, she starts off in German (repeating her teacher's words) but realises that he may understand her better if she switches to English. To clarify meaning and to make sure that she is understood, she therefore continues her utterance in English.

In example (52), PiaGG3 uses her two languages according to the addressees and the setting. First, she addresses her English friend in English (*Let me see!*) but switches to German (*OH, EIN HUND!*) as there are other children involved in the activity as well. Since German is the language of interaction during school activities, she switches from English to German immediately and continues her conversation in German.

4.7.3. Stylistic codeswitching

Stylistic codeswitching is highly intentional and usually associated with a conscious use of either language for the function of effect. This form of codeswitching is often used to mark a certain discourse such as narration, negotiation, explanation or protest, to emphasise meaning or to express power and authority (Genesee 2006:55). Thus, it serves a stylistic function to structure discourse.

This form of codeswitching was observed twice – in examples (32) and (36) – in the whole corpus and was employed by a participant of Language Acquisition Type 8, namely AllyEE8 (one of the two successive bilinguals). In a sense, these examples reflect her personal language preference; however, the examples are highly contextual. In example (32), AllyEE8 speaks about her own name and states that she always writes it in English: *ICH SCHREIB' MEINEN NAMEN IMMER IN English*. The same applies to example (36) where she talks about her brother Max, who has an “English name”. Since both of their names are indeed English (so to speak), with hers not having an equivalent in German and her brother’s being pronounced in the English and not the German way, her language choice reflects not only emotional attachment to both of their names and the language, but also social as well as contextual value. AllyEE8 associates both of their names with the English language. Thus, she makes use of stylistic codeswitching as these switches show an affection towards her family’s names.

4.7.4. Unintentional codeswitching

It is, at times, somewhat difficult to determine which function a particular codeswitch serves. However, all codeswitches that were employed by the participants of the present study were assigned a certain function. Switching between both languages for fun was not observed in the present study. It can be assumed that, as such switching is highly dependent on the individual speaker’s proficiency and his/her emotional attachment to both languages, this form of codeswitching is more likely to occur at a later stage when more proficiency in both languages has been gained.

4.7.5. Functions of codeswitching: A visual summary

To summarise the findings, the distribution of codeswitching functions in terms of number and percentage are presented in Figures 7 and 8 respectively:

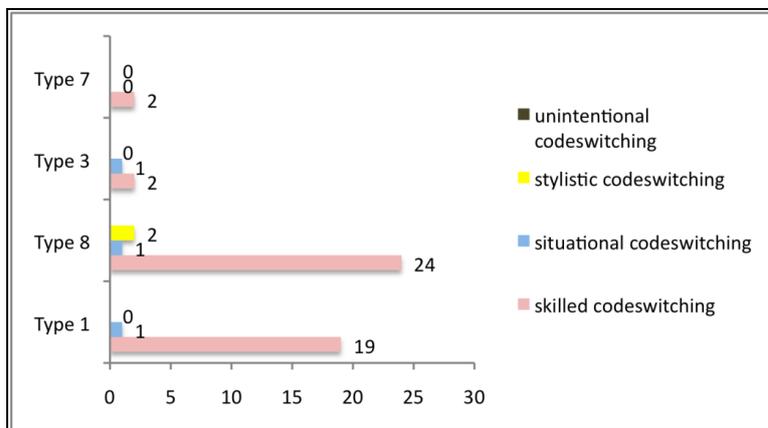


Figure 7: Distribution of codeswitching functions in terms of number

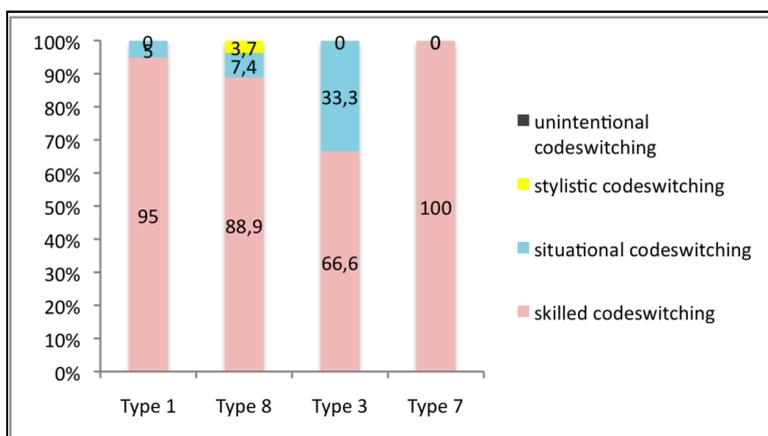


Figure 8: Distribution of codeswitching functions (in %)

4.8. Summary

This chapter provided a detailed analysis of the codeswitching behaviour found in the data. At first, the individual participants were portrayed by means of the analysis of the questionnaires and the children’s drawings. Accordingly, they were categorised in terms of Romaine’s (1995) types of bilingual acquisition in childhood. Next, the speech samples were transcribed and instances of codeswitching were annotated for frequency. The amount of codeswitching was calculated for each bilingual language acquisition type. Thereafter, the codeswitching types were identified to analyse which type of codeswitching occurred most frequently in the data of each bilingual language

acquisition type. The examples found in the data were further analysed using Poplack's (1980) constraints as a theoretical framework and then applying Myers-Scotton's (1993) MLFM. Lastly, this chapter presented an analysis of the different functions of codeswitching.

The final chapter of this thesis will summarise and discuss the findings and will outline the limitations of the current study as well as suggest further research in this regard.

Chapter 5: Summary and Conclusion

5.1. Summary of results

This thesis analysed the codeswitching behaviour among six German–English bilingual preschool children with different language backgrounds. The study aimed to investigate the relationship between codeswitching and language input. For ease of reference, the aims of the study as well as the structure of the thesis shall be summarised.

The current study aimed to answer the research question “Does the language background of English–German bilingual preschoolers influence the frequency and type of their codeswitching?”. Thus, the aims of the thesis were to (i) calculate the amount of codeswitching employed by the different bilingual language acquisition types, and (ii) identify the instances of codeswitching according to their type and (iii) function. In addition, the data was analysed qualitatively in terms of Poplack’s (1980) grammatical constraints. The overall goal of the study was to compare the findings among the different bilingual language acquisition types and place these results in relation to the participants’ language backgrounds.

Following the introduction, the literature review provided background information in order to carry out the study within a theoretical framework. In the literature review, the fields of bilingualism, bilingual first language acquisition and codeswitching were introduced. It has become apparent that researchers do not always agree on terminological distinctions, which poses a challenge to the definition of terms. The key terms were therefore defined for the purpose of this thesis and have been used accordingly in the analysis and discussion of the data. Further, the different types of bilingual language acquisition in childhood, as introduced by Romaine (1995), were presented in order to be able to categorise the participants of this study accordingly.

The literature review also showed what factors influence bilingualism and how these factors may change the outcome and the type of bilingual acquisition in childhood. It was made clear that the terms “codeswitching” and “codemixing” were used interchangeably in this thesis, although it was noted that some scholars state that these terms refer to two different phenomena. The different types of codeswitching

(intersentential, intrasentential and intraword) were outlined in order to apply them to the instances of codeswitching that were found in the data. It was pointed out that little research had been done on codeswitching behaviour in children, and traceable research findings that contributed to the understanding of such behaviour were presented as far as possible.

In order to carry out a deeper analysis of the instances of codeswitching that were found in the data, grammatical constraints on codeswitching, proposed by Poplack's (1980) Free Morpheme and Free Equivalence Constraint and Myers-Scotton's (1993) MLFM, were introduced. These models served as a theoretical framework for the analyses conducted in the current study. In addition, pragmatic aspects of codeswitching were outlined in order to assign a certain function to the instances of codeswitching and to gain an understanding of why codeswitching is used.

Following the quantitative analysis of the codeswitching behaviour and the categorisation of its type, the qualitative analysis of the data presented in this study showed that the analysis under Myers-Scotton's (1993) MLFM was inappropriate in terms of framework. The MLFM differentiates between the two languages, labelling the one the "ML" and the other the "EL". The ML throughout the whole corpus was the same, namely German, which would provide a one-sided result under the MLFM, and thus it was deemed less desirable to conduct the data analysis in the framework of the MLFM. For this reason, Poplack's (1980) constraints were considered instead.

Next, pragmatic aspects were taken into account so that codeswitching in the data is not viewed from a grammatical perspective only, and the instances of codeswitching found in the data were analysed according to their function of use. All findings were then compared among the different bilingual language acquisition types.

The case studies presented in this thesis can only account for general tendencies as the number of utterances along with the total amount of codeswitching that was found in the data was not sufficient to draw a firm conclusion. These general tendencies are discussed in the next section.

5.2. Discussion of results

The main goal of the current study was to answer the following research question: “Does the language background of English-German bilingual preschoolers influence the frequency and type of their codeswitching?” In terms of frequency of codeswitching, the participants of Language Acquisition Type 8 (successive bilinguals) employed the highest switching rate, followed closely by those of Type 1 (possibly balanced bilinguals whose parents follow the one-person-one-language approach to raising their children bilingually), and less closely by those of Type 3 (where parents speak only their shared mother tongue to the child and this language is not that of the community) and 7 (where parents shared a mother tongue that is not that of the community and one of the parents speak to the child in the language of the community). In fact, the participants of Type 3 and 7 employed such small amounts of codeswitching (less than 1%) that it could be argued that their data could have been omitted from the analysis. Instances of codeswitching found in the data were almost exclusively switches from German to English as German was the language prescribed by the setting.

It may not be surprising that the highest frequency of codeswitching was found amongst the successive bilinguals (participants of Language Acquisition Type 8) whose dominant language is English. They have had the least exposure to German and their language proficiency in English is better, which could explain the rather high switching rate from German to English. Whenever an element is more readily available in their L1, they switch to their more developed language accordingly. However, it is interesting to note that the participants of Type 1, who have had equal exposure to both languages, show the second highest rate of codeswitching. It can be postulated that, even in their case, elements from the other language were more readily available. An additional explanation is that both of the Type 1 participants claimed English to be their dominant language, as was revealed through the analysis of the language portraits. However, since the participants of Type 1 are in fact simultaneous and balanced bilinguals, they may switch between their two languages more effortlessly since they have equal ability in both languages.

However, the very low switching rate of the Type 3 and Type 7 participants, whose dominant language and L1 is German, shows that they use their dominant language

according to the setting (which requires the use of German only) without feeling the need to switch to English: the language of interaction in the kindergarten is German and they use this language accordingly.

In terms of codeswitching types, intrasentential codeswitching was the most frequent type of codeswitching observed across all bilingual language acquisition types. Most of these switches were classified as single-word switches where English content words were embedded into German sentences. It shows that the participants employed codeswitching whenever the element of the other language was more readily available, which is in accordance with Genesee's (2006) findings. The second most frequent codeswitching type that was found across the different bilingual language acquisition types was intraword codeswitching, where English content words were combined with German system morphemes within German syntax. This type of codeswitching requires rather well-developed skills in both languages as it needs to occur within very specific grammatical constraints in order to render acceptable utterances. This could explain why intraword switches were employed less frequently than intrasentential (and thus also single-word) codeswitching.

Intersentential codeswitching was the least observed type of codeswitching. However, the participant of Language Acquisition Type 3 employed intersentential codeswitching in two of her three codeswitching instances and also switched from English to German. Since PiaGG3 only has little ability in English, it explains why she made use of intersentential codeswitching rather than intrasentential or intraword switching: Intersentential codeswitching requires the least skills as it need not occur within any grammatical constraints and can be employed even by speakers with only limited language ability.

A conclusion drawn from the results is that all codeswitching behaviour across all bilingual language acquisition types and, thus, all participants can be seen as a "norm" among their speech and as a consequence of their bilingualism. This conclusion is further based on the fact that the amount of codeswitching in the data of all of the participants in this study did not exceed 5%. Thus, it can be postulated that the participants' codeswitching behaviour was within an acceptable range.

However, when comparing the different bilingual language acquisition types, the high number of codeswitches by the participants of Type 8 can be explained more thoroughly when looking at the pragmatic function of its use. Almost 90% of the switches of these successive bilinguals were identified as skilled codeswitching for the purpose of filling lexical gaps. This indicates that those participants in particular who have had the least German input switch to English whenever the equivalent is more readily available in their L1. This is not surprising as their English language repertoire is larger than their German language repertoire due to the longer period of exposure that they have had to English than to German. That less than 20% of the switches of the participants of Type 8 were found to be intraword switches is also not surprising; such switching requires more proficiency in order to combine content and system morphemes from two languages as this type of codeswitching is in fact grammatically constrained and requires knowledge of the syntax and morphology of both languages involved. It can be postulated that the participants with less exposure to German (Type 8) try to avoid intraword codeswitching as it is generally more complex than intrasentential codeswitching. However, the fact that the participants of Type 8 employed only a slightly lower percentage of intraword codeswitching than the balanced bilingual participants of Type 1 (18.5% vs. 20%) indicates that there is a tendency for all participants to avoid this type of codeswitching. In fact, participants of Language Acquisition Types 3 and 7 did not employ any intraword codeswitching at all.

Interestingly, however, intersentential codeswitching, which requires the lowest level of competence (Poplack 1980) in comparison to intrasentential and intraword codeswitching, was only employed within a very limited range (five out of 52 times). It can be postulated that intersentential codeswitching is only used to serve a particular function, namely self-correction as was observed in the data, or as a reaction to an addressee change. The participants did not feel the need to employ this discourse strategy at the time of recording and/or observation.

The data analysis has further shown that most instances of codeswitching violated Poplack's (1980) model. The structural properties of most of the examples found in the data violated the Free Morpheme and/or the Free Equivalence Constraint. It can be concluded, as shown in the analysis, that Myers-Scotton's (1993) model is in fact the

one with more universal value as all the examples that were found in the current study met the conditions of her constraints. However, since Myers-Scotton's (1993) model was found to be inappropriate for the present data, the study has merely proved that Poplack's (1980) model does not hold true and cannot be regarded as a model with universal application.

The analysis of the codeswitching functions showed that skilled codeswitching for the purpose of filling lexical gaps made up the highest amount of codeswitching instances in all bilingual language acquisition types (ranging from 67% to 100% across these types). These results support Genesee's (2006) findings and show that children, regardless of their language background, switch mainly in order to fill lexical gaps.

Situational codeswitching, in order to react to an addressee or setting change, was found on only one occasion for each of Language Acquisition Types 1, 3 and 8. During the time of observation and/or recording, the participant of Type 7 did not experience a situation in which situational codeswitching was required. However, the fact that it was found across Types 1, 3 and 8 shows that children, regardless of their language background, are aware of such changes and react with a switch to the (more) appropriate language when required. During the time of observation, the participants did not experience such situations frequently, which explains the rather low number of situational codeswitches.

Stylistic codeswitching was observed only twice in the whole corpus. Both instances came from a participant of Language Acquisition Type 8, which indicates that this type of codeswitching is highly contextual and requires a certain situation in which the utterance is embedded. These kinds of situations were rare during the time of observation, which could explain why stylistic codeswitching was not used more frequently by the participants.

In summary, the results of the current study have shown that children who have had only limited exposure to German (successive bilinguals) seem to switch more frequently and mostly within an utterance in order to fill lexical gaps. Children who are considered to be simultaneous and balanced bilinguals make use of both of their languages based on their interlocutors. They seem to switch rather often for the same reason but are in fact able to adapt to their interlocutor. Their codeswitching

behaviour was highly dependent on their playmates. Based on the observations made, it can be postulated that they switch more frequently around bilingual speakers than around monolingual speakers. Switches are seldom produced by children who do not feel the need to switch because the language of interaction is their L1. It shows that codeswitching does not occur randomly but rather serves a particular function that all children, regardless of their language background, are aware of, which is in accordance with the findings of other researchers (see Genesee 2006, Myers-Scotton 2006, De Houwer 1995, 2005). The limitations of the study will be outlined in the following section.

5.3. Limitation of the study

The present study was carefully planned and prepared and was carried out within the scope of available time and resources. The kindergarten, including the children and all staff members, welcomed me at all times. They were very helpful and cooperative with regards to my work. However, there are some limitations that I would like to point out. Firstly, the number of participants was too limited to obtain a representative result. A larger number of participants would have led to more representative results and may have made it possible to answer the research question in a more conclusive manner.

Secondly, the time frame in which the study was carried out was not sufficient to collect enough data from each of the participating children. One hour per participant in addition to the formal and structured sessions did not provide enough data material to make generalisations.

Thirdly, German and English are related languages. A study with bilingual children of two languages other than the aforementioned, specifically two languages from two different language families, may have led to very different results. That said, I am a German-English bilingual foreigner with no knowledge of Afrikaans or any other African language, and thus it was not practical for me to conduct research on codeswitching in languages other than German and English.

Lastly, the language use of the participants was highly dependent on and determined by the setting. Thus, the language choice was not necessarily based on the

participants' preferences or the level of proficiency, but possibly on the school's strictly implemented language policy. This limitation emerged specifically during the process of data analysis. Myers-Scotton's (1993) MLFM turned out to be insufficient for the analysis as the ML throughout the corpus was German (with one exception) and not the desired and dominant language of all of the participants. More spontaneous speech material in unstructured playing sessions, possibly in a separate venue away from the kindergarten, might have led to a greater amount of data, sufficient for a deeper and more accurate analysis.

However, given time constraints and circumstances, the information that was gathered from the participants and their parents (by means of language portraits and questionnaires respectively) as well as the length of time for which the participants were observed and recorded, was within the possible range of this study even though it provided only a very limited amount of data.

5.4. Recommendations for further research

Throughout this thesis, it was made clear that little research had been undertaken on codeswitching behaviour in children. Most of the research that has been carried out involved children of Language Acquisition Type 1. It must be emphasised again that the results of the current study only account for tendencies. Thus, it is suggested that future studies compare codeswitching behaviour of bilingual children of different bilingual language acquisition types. Future studies should allow more time for observation in unstructured playing sessions. By doing so, one would be able to collect a larger amount of data, and a more in-depth analysis of codeswitching behaviour could be carried out. Furthermore, a more detailed analysis of the participants' language backgrounds would allow one to make wider generalisations rather than just indicating tendencies. This includes a deeper analysis of the home environment as well as the language exposure of the participants and a general evaluation of their language skills, possibly with standardised tests. Further studies could observe participants in both their home and their school environments. In addition, participants could be observed for a longer period of time to investigate whether codeswitching behaviour changes with age, which would contribute to a better understanding of how and why codeswitching occurs.

5.5. Conclusion

Being bilingual means that both languages interact in a certain way and that there may be multiple ways of combining the two languages in use. In this study, an attempt was made to ascertain how codeswitching behaviour differs between simultaneous and successive bilinguals. This multiple case study proved that, regardless of their language background and/or their language skills, even young children are able to use their two languages appropriately, following discourse strategies to make sure their message is being understood.

With regard to the research question, “Does the language background of English-German bilingual preschoolers influence the frequency and type of their codeswitching?”, the results of the data analysis have shown that even though the outcome of bilingualism is dependent on various factors (which affects the amount of codeswitching), the discourse strategies that are applied in order to assure that the message is being understood are generally the same across different bilingual language acquisition types. The results have further shown that the participants, regardless of their language background, employ codeswitching within postulated grammatical constraints, of which some may be universal and others are not.

These findings indicate that codeswitching, even among young children, is not a random epiphenomenon of bilingualism but a rather sophisticated method of making sure that (i) thoughts are transformed into speech in an accessible way, and (ii) the message is being delivered and understood by the conversational partner.

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Appendix A: Parental Questionnaire

Parental Questionnaire

1. General Information about the Child

1.1 Child's Name: _____

1.2 Birth Date: _____

1.3 If place of birth is not country of residence, date of arrival in country of residence: _____

2. Child's early history: Language, etc.

2.1 How old was your child when he/she spoke his/her first word? _____

2.2 How old was your child when he/she first put words together to make short sentences? _____

Example: *more water* ; *more milk* ; etc.

2.3 Before your child was three or four years old, were you ever concerned about his/her language? NO or YES

2.4 Has your child ever had any hearing problems or frequent ear infections? NO or YES

2.5 What languages does your child speak now?

German	English	Afrikaans	Other (specify)

2.6 Which language do you think your child feels the most at home in? _____



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2.7 Before your child was four years old, was he/she exposed to:

	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%		Score/4
German						German	
English						English	
Afrikaans						Afrikaans	
Other (specify)						Other	

2.8 At what age did this exposure begin?

	Age
German	
English	
Afrikaans	
Other (specify)	

2.9 In what contexts did this exposure take place? (Check all appropriate cells.)

	German	English	Afrikaans	Other
a. Exchanges with mother				
b. Exchanges with father				
c. Exchanges with grand parents				
d. Exchanges with babysitter / child minder				
e. Exchanges with other adults (specify)				
f. Exchanges with siblings				
g. Nursery school/day care center / kindergarten				
Total (1 point per cell)				
Total by language	<i>/6 (or 7)</i>	<i>/6 (or 7)</i>	<i>/6 (or 7)</i>	<i>/6 (or 7)</i>

3. Current Skills				
	German	English	Afrikaans	Other
<p>3.1 Compared to other children the same age, how do you think your child expresses him/herself in ...?</p> <p><i>0 = not very well/not as well as them; 1 = a little less well/a few differences; 2 = (generally) the same; 3 = very well, better</i></p>	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
<p>3.2 Do you think that your child speaks like a child the same age who only speaks?</p> <p><i>0 = not very well/not as well as them; 1 = a little less well/a few differences; 2 = (generally) the same; 3 = very well, better</i></p>	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
<p>3.3 Compared to other children the same age, do you think your child has difficulties making correct sentences?</p> <p><i>0 = yes, many difficulties; 1 = some difficulties; 2 = (generally) the same; 3 = no difficulties, better than other children</i></p>	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
<p>3.4 Are you satisfied with your child's ability to express him/herself in ...? Always?</p> <p><i>0 = not at all satisfied; 1 = not very satisfied; 2 = pretty satisfied/generally satisfied; 3 = very/totally satisfied</i></p>	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
<p>3.5 Does your child feel frustrated when he/she can't communicate in ...?</p> <p><i>0 = very frustrated/almost always frustrated/very often frustrated; 1 = often frustrated/yes; 2 = sometimes frustrated, but not often; 3 = (almost) never frustrated/no</i></p>	0 1 2 3	0 1 2 3	0 1 2 3	0 1 2 3
Total by language	/15	/15	/15	/15

4. Languages used at home

4.1 With parents

Mother ↔ Child						Father ↔ Child				
	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%
German										
English										
Afrikaans										
Other										

4.2 Is there another adult who regularly takes care of your child? (grandparent, babysitter, etc.) YES or No

Grandparent ↔ Child						Babysitter ↔ Child				
	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%
German										
English										
Afrikaans										
Other										

Other Adult 1 ↔ Child						Other Adult 2 ↔ Child				
	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%
German										
English										
Afrikaans										
Other										

4.3 For each child in the family, complete a separate table

Sibling 1 ↔ Child						Sibling 2 ↔ Child				
	0 Never 0%	1 Rarely 25%	2 Some- times 50%	3 Usually 75%	4 Al- ways 100%	0 Never 0%	1 Rarely 25%	2 Some- times 50%	3 Usually 75%	4 Al- ways 100%
German										
English										
Afrikaans										
Other										
Sibling 3 ↔ Child						Sibling 4 ↔ Child				
	0 Never 0%	1 Rarely 25%	2 Some- times 50%	3 Usually 75%	4 Al- ways 100%	0 Never 0%	1 Rarely 25%	2 Some- times 50%	3 Usually 75%	4 Al- ways 100%
German										
English										
Afrikaans										
Other										
Sibling 5 ↔ Child						Sibling 6 ↔ Child				
	0 Never 0%	1 Rarely 25%	2 Some- times 50%	3 Usually 75%	4 Al- ways 100%	0 Never 0%	1 Rarely 25%	2 Some- times 50%	3 Usually 75%	4 Al- ways 100%
German										
English										
Afrikaans										
Other										

5. Languages spoken outside the home

5.1 What language activities does your child do each week and in what language(s)?

Activities	German			English			Afrikaans/Other		
	0 Never or almost never	1 At least once a week	2 Every day	0 Never or almost never	1 At least once a week	2 Every day	0 Never or almost never	1 At least once a week	2 Every day
a. Reading (books, comic books, newspapers)									
b. Television/ movies / cinema									
c. Storytelling									
<i>Total</i>									
<i>Total by language</i>									

5.2 What language is spoken between your child and the friends he/she plays with regularly?

Child ↔ Friends					
	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%
German					
English					
Afrikaans					
Other (specify) _____					

5.3 What language is spoken with family friends with whom you are in regular contact?

Family Friends					
	0 Never 0%	1 Rarely 25%	2 Sometimes 50%	3 Usually 75%	4 Always 100%
German					
English					
Afrikaans					
Other(specify) _____					

6. Information about the mother and the father

6.1 Information about the mother

6.1.1 In which country were you born? _____

6.1.2 If you are currently working, what is the language you use at your work place? _____

6.1.3 Education:

		Number of years	Further information
Primary school	Yes / No		
Secondary school	Yes / No		
University	Yes / No		
Other professional training	Yes / No		

6.1.4 In your opinion, how well do you speak the following languages?

	0 Only a few words	1 Gets along, but with difficulty	2 Basic abilities (gets along)	3 Well	4 Very well
German					
English					
Afrikaans					
Other					

6.2 Information about the father

6.2.1 In which country were you born? _____

6.2.2 If you are currently working, what is the language you use at your work place? _____

6.2.3 Education:

		Number of years	Further information
Primary school	Yes / No		
Secondary school	Yes / No		
University	Yes / No		
Other professional training	Yes / No		

6.2.4 In your opinion, how well do you speak the following languages?

	0 Only a few words	1 Gets along, but with difficulty	2 Basic abilities (gets along)	3 Well	4 Very well
German					
English					
Afrikaans					
Other					

Thank you very much for your time and your participation! I greatly appreciate it!

Appendix B: Parental Consent Form



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jou kennisvenoot • your knowledge partner

Parental Information Sheet and Consent Form

With this letter, I am asking you to give consent to let your child participate in my research project. All data will be **anonymised** and **pseudonyms** will be used. The information and data are **subject to privacy regulations**.

There are no risks involved in participating in this study.

Why do this study? – I am a primary school teacher from Germany, currently residing in Stellenbosch to do a master's degree in Second Language Studies at Stellenbosch University. I have taught at a bilingual school (English/German) in Hamburg, Germany for the past years and am very interested in the way children acquire languages and how they use them. In that regard, I have been in contact with [REDACTED] and was given permission to volunteer at the kindergarten in February to understand their way of teaching. I was very impressed and decided to come back in April/May 2013 for a few weeks to work with your children and conduct research. The aim of my research project is to point out how children who grow up in a bilingual environment make use of their two languages. The study is part of my final thesis.

What will participation involve? - The children will be working with me for some time and will create their own language profile by drawing pictures. In addition, they will be asked to describe a picture story. They will be recorded with a voice recorder and all data will be analysed afterwards. The goal is to practice the children's language skills, to let them talk freely and to watch how they use language and when they may switch from one language to the other. They will also be recorded during breaks while talking to their peer group. All data will be kept confidentially and pseudonyms will be used in my thesis. Beforehand, I would kindly ask you to fill out a questionnaire of ca. 6 pages so that I know what the language environment of your child looks like. If you find any question too personal, you may choose not to answer it. Also please note that you may contact me at any stage to withdraw consent for participation of your child should you later on decide to do so.

How long will participation take? – Your child will NOT miss any lessons. Whenever there is time, I will take out children individually or in groups to work with them. It won't take longer than 20-30 minutes. If I detect any fatigue in your child, I will stop our interaction. Your child will be allowed to ask for breaks or to ask for our interaction to be terminated at any time, without providing reasons for the requests.



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If you have any concerns or questions do not hesitate to contact me
via email: Insa1984@gmx.de or via phone: +27 (0) 79 68 16019

or my study leader Dr Frenette Southwood
via email: fs@sun.ac.za or via phone: +27 (0)21 8082010

Thank you very much for your assistance!
I am looking forward to working with your children!
With kind regards,

(Insa Terveen)

Please fill out, sign and return latest by 28 March, 2013 to [REDACTED].

Thank you very much!

.....

I, _____ (full names and surname), in my capacity as
parent/guardian (delete which is not applicable), hereby grant permission for
_____ (child's full name and surname) to participate in the
bilingual child language project.

I further declare that (i) I have provided permission for my child's participation and the information on the language background questionnaire of my own free will, (ii) I have been informed in English by the researcher that I am under no obligation to answer any question which I regard as inappropriate, too personal, and/or offensive, and (iv) I have been informed in English by the researcher that participation in this study may be terminated at any stage by me and/or the child, without a reason being provided.

Signature of the person completing the form

Date

Appendix C: Child Consent Form

	STELLENBOSCH UNIVERSITY	
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PARTICIPANT CONSENT FORM: MINOR



TITLE OF THE PROJECT:

“Frequency and Function of Codeswitching among German-English Bilingual Preschool Children in Cape Town”

RESEARCHERS NAME: Insa Terveen

What is RESEARCH?

Research is something we do to find new knowledge about the way things (and people) work. We use research projects or studies to help us find out more about topics to understand them better and to find possible solutions.

You are kindly invited to help with such research by looking at pictures, answering questions and making sentences.

Are you willing to take part in this research project?

YES

NO

Signature of Child

Date

Signature of Parent/Guardian
(where applicable)

Date