UNIVERSITY OF AGDER

What can bilingualism do for you?

The advantages of bilingual language development

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This Master's Thesis is carried out as a part of the education at the University of Agder and is therefore approved as a part of this education. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.

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Introduction

Until recently, bilingualism was viewed as a special case of language development, rather than the regular case it is (Pearson, 2009: 37). For an average monolingual person, the idea of speaking a second language fluently was relatively remote. Even though many people were required to learn a foreign language at school, they seldom attained native fluency. However, for the majority of children in the world, speaking two or more languages is a natural part of everyday life. In particular, the last two decades have witnessed increased mobility of people that has resulted in an even greater number of bilingual families (cf. Paradis, 2001: 15, Hornby, 1977: 1).

The bilingual language experience of bilingual and multilingual children varies from child to child in terms of when the acquisition of each language began, and the situations, in which the languages are spoken. It is, therefore, of utmost importance for researchers to inform the parents of bilingual children about the characteristics of bilingual language acquisition, about its challenges and, most importantly, its advantages (Paradis, 2001: 15).

This thesis aims to highlight the positive outcomes of dual language development in simultaneous bilingual children, who began acquiring both languages at birth or at least before the age of 3;0 (Paradis, 2001: 15).

My thesis consists of a theoretical part and an empirical part. In the theoretical part, I introduce the reader to the field of bilingualism. Chapter 1 stresses the interdisciplinary nature of bilingualism, showing that not only language proficiency, but also the socio-cultural or educational background characterizes a bilingual person. The most important reasons why bilingualism should be further explored are also given in this chapter. In Chapter 2, I highlight the importance of promoting positive attitudes towards bilingualism and bilingual language education. Furthermore, I show how this is achieved in Norway and in the U.S. My thesis would not be complete without the third chapter, where I compare monolingual vs. bilingual language acquisition. Finally, in Chapter 4, I focus on the positive impact of bilingualism on cognition in two specific areas: metalinguistic awareness and communicative competence.

In the empirical part, I investigate the relation between bilingualism and cognitive development. I present results of my own study of the cognitive-linguistic abilities of 6 Norwegian/English balanced bilingual children, 4 Norwegian/English non-balanced bilingual

children and 6 Norwegian monolingual children. The method of this study includes testing the translation ability, which is considered "a composite of metalinguistic and communicative skill" (Hakuta et al., 2000: 150). On the basis of this assumption, I propose the two following hypotheses. First, balanced bilingual children are more advanced than non-balanced bilingual and monolingual children in capturing and conveying the meaning of the source-language text. Second, balanced bilingual children outperform the other two focus groups in communicating this meaning in a correct target-language sentence structure. Both hypotheses are borne out by the data (Hakuta et al., 2000: 145, Bialystok, 1988: 561).

I. THEORETICAL PART

1. Bilingualism: An Introduction

I start this introductory chapter with an overview over the discussion of how bilingualism could be defined in the best possible way. I aim to show that the bilingual individual should always be described with regard to all relevant dimensions of bilingualism. This means that not only language competence, but also socio-cultural or educational background are essential components of the experience of being bilingual. I continue with stressing the importance of bilingualism as a field of study. This is done by presenting at least some of many intriguing areas in bilingual research, including bilingual language education or L2 teaching. I conclude with an investigation into the history of bilingualism research. In so doing, I emphasize the role of Peal and Lambert's (1962) study of bilingualism and cognition, which gave the general public a new perspective on bilingualism and encouraged researchers to select their bilingual participants more carefully (Chin et al., 2007: 3, 18, Hakuta et al., 1985, 323, Altarriba et al., 2008: 10).

1.1 What is bilingualism?

If you ask people about the meaning of the word *bilingualism,* they will certainly come up with various definitions. Some will almost certainly define a bilingual person as anyone who is able to speak two languages 'perfectly' (Harding-Esch et al., 2006: 22). Others will tell you about their attempts to learn a foreign language, thinking that *bilingual* means to have at least minimal control over a language (Romaine, 1995: 11). On the one hand, this shows that almost everybody connects the notion of *bilingualism* to the idea that each individual is capable of learning several languages across the lifespan (Altarriba et al, 2008: 3). But on the other hand, it also indicates that there is a great inconsistency in the perception of bilingualism. In the following, I will look into the possible sources underlying the various notions of *bilingualism* in society.

As Romaine (1995) points out, there has often been disagreement even among linguists as to the definition of bilingualism and a bilingual individual. For example the Penguin Concise Dictionary (2004) defines bilingual as 'being able to use two languages fluently', which comes close to or even reflects what people think bilingualism is. Bloomfield (1933: 56) gives similar definition, claiming that *bilingualism* is "the native-like control of two languages". A rather different definition has been suggested by Macnamara (1967a) who maintains that

anyone with a minimal competence in one of the four language skills (speaking, listening, writing, and/or reading) qualifies as a bilingual individual.[1]

Even the quickest of examinations of these two definitions, which mark the extremes, reveals their major flaws (Harding-Esch et al., 2006: 23). First, they fail to define what is meant by 'speaking a language fluently', 'native-like control', or by 'minimal competence'. Secondly, they consider only the linguistic dimension of bilingualism, namely the degree of proficiency (again, without defining 'proficiency'). In general, non-linguistic dimensions are ignored. In (1) − (3), I provide some of the characterizations that fall in between the two extremes (Hamers et al., 1993: 6f). I take these characterizations to be representative of what underlies the variety in non-linguists' judgement of bilingualism.

> (1) "Bilingualism is understood [...] to begin at the point where the speaker of one language can produce complete, meaningful utterances in the other language."
>
> (Haugen, 1969: 6f)

> (2) "The phenomenon of bilingualism [is] something entirely relative [...]. We shall therefore consider bilingualism as the alternate use of two or more languages by the same individual."
>
> (Mackey, 2000: 27)

> (3) "The bilingual or holistic view of bilingualism proposes that the bilingual is an integrated whole which cannot easily be decomposed into two separate parts. The bilingual is NOT the sum of two complete or incomplete monolinguals; rather, he or she has a unique and specific linguistic configuration."
>
> (Grosjean, 1992: 55)

Examining definitions that use qualifiers to describe a bilingual individual, it is important to bear in mind that none of them is exhaustive, as each focuses on one type of bilingualism and therefore views this phenomenon from a particular angle (Hamers et al., 1993: 7). This does not mean, however, that these definitions are irreconcilable. Harding-Esch et al. (2006: 23) points to the fact that the definitions in (1), (2) and (3) "underline the importance of the *relative* nature of bilingualism", which translates into the question at what point a person becomes bilingual. Mackey (2000: 26f) and Harding-Esch (2006: 23) agree that it is hardly possible to provide a satisfactory answer to this question and many other authors, including Altarriba et al. (2008: 3) and Romaine (1995: 11f), conclude that bilingualism is a very 'complex venture' that does not allow for a single definition.

Thus, if we want to understand bilingual speakers, it is of utmost importance to remember that the study of bilingualism is genuinely multidimensional. This means that not only

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[1] Cited in Hamers et al. (1993: 6).

linguistic knowledge, but also, for example, knowledge of biology, psychology, sociology, and pedagogy is required from those who work with bilinguals. The level of language proficiency or language competence, for example, falls into the field of linguistics. However, to study cognitive organization and the age of acquisition, one needs to have some knowledge in psychology and biology, too. Finally, it will not suffice to study the social cultural status, the social identity of bilinguals and bilingualism in education without knowing at least something about sociology and pedagogy, respectively (Hamers et al., 1993: 7f, Altarriba et al., 2008: 4).

Obviously, all the dimensions I have listed above need to be taken into consideration simultaneously in order to get a complete picture of a bilingual individual. For example, a speaker's competence in her or his language(s) will determine the context in which a particular language is used and vice versa, i.e., the linguistic choices a bilingual individual has will influence her or his abilities in her or his language(s) (Romaine, 1995: 12). Harding-Esch et al. (2006: 22) give an example of a French/English bilingual lawyer who speaks English at work and French at home. The lawyer's legal English is much more advanced than her legal French. Conversely, domestic French is much better than her domestic English. This example suggests that a bilingual's languages are "different tools for different purposes" (Harding-Esch et al., 2006: 22) that cannot be treated in isolation from one another and from the relevant dimensions under consideration (Hamers et al., 1993: 7).

As we have seen, people usually have a preconception of what 'bilingual' means but once we start looking for a precise definition of bilingualism, numerous problems arise (Harding-Esch et al., 2006: 22). As suggested by Beardsmore (1986: 3f), there is no need attempting to provide an unsatisfactory definition of bilingualism. We should rather narrow down the area of investigation (e.g. *individual* vs. *societal bilingualism)* within the field of bilingualism we are interested in, so as to avoid over-generalization. In the light of the above discussion, it appears only logical that we need to connect this area to all relevant dimensions of bilingualism (see chapter 2.1 for the relationship between bilingualism and social identity, chapter 3 for bilingualism and language acquisition and chapter 4 for bilingualism and cognitive development. In the following section, I focus on the issue of degree of bilingualism (Harding-Esch et al., 2006: 30, 33, Romaine, 1995: 12).

1.1.1 Bilingualism: a matter of degree

Chin et al. (2007: 6) quote Macnamara (1969) who maintains that the degree of bilingualism should not be understood as a one-level phenomenon, but as a degree of proficiency in all four language skills (speaking, listening, writing, and reading) and at all linguistic levels (phonological, grammatical, lexical, semantic, stylistic, and graphic) in both of the bilingual's languages, which I will label A and B. However, it seldom is the case that the level of competence in a language skill is equally high at all linguistic levels. Some bilinguals might have large vocabularies, but imperfect pronunciation, or native pronunciation, but poor command of grammar. Therefore, the bilingual's proficiency in each of the language skills and at every linguistic level is viewed as a series of continua that varies from speaker to speaker, as is shown in Table 1 (Mackey, 2000: 27f, Chin et al., 2007: 6, Romaine, 1995: 12):

Table 1 Measuring degree of bilingualism

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

(Adapted from Mackey, 2000: 28 and Romaine, 1995: 13)

Before turning to discuss typical cases where the proficiency in these two sets of variables (skills and levels) varies from bilingual to bilingual, I want to briefly comment on what Mackey (2000) refers to as the "alternate use of two [...] languages". Even though this definition begs many questions, e.g. what is meant by 'using' a language', I will take it as my starting point, because it also allows for including those types of bilinguals who are not necessarily 'perfect' in all language skills and at all linguistic levels. The degrees of proficiency in bilingual speakers who use both their languages on daily basis are, for a simple reason, difficult to assess: bilinguals find themselves in different language modes that, as Grosjean (1998: 136) suggests, can be understood as points on a monolingual-bilingual scale. Thus, at one end of this scale, bilinguals are in a completely monolingual mode if they talk to monolinguals of one of their two languages. If they interact with speakers of both languages they know, they find themselves at the other end of the scale, as they are in a completely

bilingual mode. This is where language mixing (e.g. code-switching) typically occurs, i.e. bilinguals activate their languages in accordance with external factors, such as the person they interact with, the topic of the conversation etc. (Grosjean, 1998: 136, Mackey, 2000: 28).

Let me now have a closer look at what happens when bilinguals find themselves in the monolingual mode. Harding-Esch et al. (2006: 34) give an example of a German student who has lived in Great Britain for many years. Back home in Germany, she visits her bank in order to discuss various issues. After a while she realizes that she is having difficulties finding appropriate words because she has never had conversation on this topic in German before. The phenomenon at hand has been referred to as *interferences,* i.e. as "speaker-specific deviations from the language being spoken due to the influence of the other deactivated language"(Grosjean, 1998: 136). Interferences can also take place when the speaker is in the bilingual mode, but here they are easily confused with other types of language mixing, such as borrowing and code-switching (cf. Grosjean, 1998: 136). Since the latter is discussed in some detail in chapters 3.4 and 3.5, I confine the present discussion to interferences as they can reveal a lot about the degree of bilingualism in bilingual individuals.

Interference can be observed at all linguistic levels and in all four language skills mentioned at the beginning of this section. For example, if interference occurs at the phonological and/or graphical level, it can result in poor reading and writing abilities or 'foreign accent'. It might well be the case that the literacy skills, i.e. reading and writing, have been learned only in one of the two bilingual's languages. Thus, an Arabic language speaker in England might understand spoken Arabic, but is incapable of reading literary texts in this language. It follows that she or he might be a very good speaker, but rather poor reader and writer. Similarly, many bilinguals do not have the same mastery of pronunciation in both languages, which typically leads to problems of transfer (Mackey, 2000: 27, Harding-Esch et al. 2006: 35, Romaine, 1995: 13, Hudson, 2008: 169). An example given by Hudson (2008: 170) is that of a Spanish dominant Spanish/English bilingual who transfers his /d/ into English. Consequently, she or he may pronounce words such as [liðər] 'leader' or [læðər] 'ladder' instead of [lidər] and [lædər].

At the level of grammar, it is also common for the grammatical rules of the stronger language to be reinterpreted in the other, less dominant language (Hudson, 2008: 169). Harding-Esch et al. (2006: 35) give an example of an English dominant English/French bilingual, overusing

the rules that govern the English word order when speaking French, such as the availability of preposition stranding in English and its non-availability in French:

(4) * "C'est celui que je parlais avec."
      "C'est celui avec lequel je parlais"
      "He is the one I was talking to."   (cf. Harding-Esch et al., 2006: 35)

Mackey (2000: 28) has documented bilinguals whose ability to use grammatical structures of either language does not match the size of their active vocabularies. There are bilinguals whose passive vocabulary in language B is much greater than it is in language A, and far more extensive than their active vocabularies in either language (Harding-Esch et al. 2006: 35f, Mackey, 2000: 28). In other words, their vocabulary is not equally balanced in both their languages. As a result, the vocabulary of language B may interfere with that of language A. A French dominant French/English bilingual, for instance, might have difficulties distinguishing between related words, as illustrated in (5) (Harding-Esch, 2006: 35):

(5) "I went to the library this morning."
      Intended meaning: "I went to the bookshop."   (cf. Harding-Esch, 2006: 35)

To sum up, interferences, to some extent, can serve as an indicator of the degree of bilingualism. However, it is extremely important to bear in mind that interferences should by no means be looked at as something negative or unhealthy. As we have seen, there are many factors (e.g. language mode, interlocutors, topic of conversation etc.) that decide whether the interferences will occur in the bilingual's speech (Harding-Esch et al. 2006: 35f). In other words, it would be pointless to use the number of interferences as a measure of the degree of bilingualism without taking into account all the factors mentioned above (Skutnabb-Kangas, 1981: 216f).

In this section, I have provided an introduction to the field of bilingualism primarily based on Romaine (1995), Grosjean (1998) and Harding-Esch et al. (2006). In the following section, I probe the major reasons why researchers as well as the general public may be interested in exploring the field of bilingualism.

1.2 Why study bilingualism?

Mention *globalization* or *modernization* and you will get a great variety of reactions, both positive and negative. While economists and business people will praise the great advances in mass communication for contributing to more effective trade, the sociologists will warn against the growing differences between poor and rich countries and people (Milroy et al, 1995: 1f, Altarriba et al, 2008: 3, Cummins, 2001: 15).

One important consequence of globalization that interests many linguists these days is the migration of people which leads to increasing bilingualism. Various factors are responsible for population shifts, including overpopulation, oppression, natural catastrophes but also internationalization of industry and white-collar businesses. The EU member states, for instance, make it possible for their residents to move freely within the EU territory (Milroy, 1995: 2, Cummins, 2001: 15). In the US, the knowledge of the business partner's mother tongue is considered "a lubricant in the process of negotiating for a deal" (Li, 2007: 431). It follows that more and more people are forced to become immersed in new languages every day (Altarriba et al., 2008: 6). Even though bilingualism has only received increased attention from researchers in the past forty years or so, it is by no means a new phenomenon. Throughout the history of mankind, people were becoming bilingual for various reasons, including language contact, colonization, trade etc. (Genesee, 2004: 547).

Taking Altarriba's (2008: 5) introductory chapter 'Why study bilingualism' as a point of departure, I will now have a look at the major reasons for exploring bilingualism.

1.2.1   Language as a means of communication

It is an agreed upon fact that our language is what distinguishes us from other species and makes us human (Altarriba et al., 2008: 5). Yet, many researchers, especially those working with signing chimpanzees, claim that these animals have a potential to learn and use symbolic signs, which are typical of human language. Others, especially linguists, are rather sceptical. They note much lower speed at which the language is learned by chimps than by human babies as well as the fact that intensive training is necessary in order for the language to be learned at all. While children have vocabularies of about 14, 000 words by the age of six, chimps' active vocabularies seldom grow beyond a hundred signs, and their sporadic multiword utterances do not contain more than five or six signs. Besides that, chimps do not use their sign language to have conversations with each other, as do humans. In fact, children as young as 2 years of age can produce and comprehend utterances of impressive complexity (see Chapter 3) (cf. Hudson, 2008: 196f, Altarriba et al., 2008: 5f, O'Grady, 2007: 8, 110f).

If the above arguments are true, why not take advantage of our unique ability and learn more than just one language? This leads me to the first and perhaps the most important reason to explore bilingualism: each language is above all a means of communication and, due to the increasing mobility of people, knowing two or more languages is also growing more and more important. (Altarriba et at., 2008: 5f).

1.2.2   The importance of bilingual language education

Cummins (2001: 15f) points out that the migration of people results in greater cultural, religious and linguistic variety in the classrooms all around the world. For instance, in the USA, the number of students who come from non-English-speaking homes grew 105% in the period between the years 1990 and 2001 (cf. Freeman, 2004: 9). In the city of Toronto in Canada, these children represented almost 60% of all kindergarten students in 2001 (cf. Cummins, 2001: 15). Beneath the surface of these statistics lies a challenge for teachers, principals, and educational authorities that is by no means easy to meet: How to teach the English-language learners in the best possible way (Freeman, 2004: 9ff)?

According to Cummins (2001), a first step educators and policy makers have to take is to pay greater attention to what the research says about the positive impact of bilingual education both on the children's personal and educational development. 35 studies carried out during the past 40 years support the argument that bilingual children have a better understanding of language and the ways in which it is used most effectively, especially if they become literate in both mother tongues. Moreover, noting that they have to process knowledge of whatever kind in two different languages, it stands to reason that bilingual children may develop more flexible cognitive abilities (Cummins, 2001: 17f, Altarriba et al., 2008: 6f).

As we have seen above, having access to both mother tongues throughout the educational process can be of a great advantage to the bilingual child. At the same time, however, knowing what characterizes proficient speakers may help those who work with both young and adult L2 learners to develop new and more efficient teaching methods. As Altarriba et al. (2008: 7) point out, there are still many questions to be answered about the methods used in L2 teaching, as well as in bilingual education: Does it help at all to memorize words in a new language? What about the immersion in a new language - does it really result in proficiency? Does the environment in which language is taught play a decisive role in L2 learning? The very fact that we can ask these questions suggests that further research in the L2 language learning is needed. Altarriba et al. (2008: 7) conclude that studying bilinguals and how they acquire, use, and maintain their languages can contribute to develop a better and more effective system for L2 language teaching.

1.2.3   More languages, more opportunities

Last but not least, many are simply interested in studying bilingualism because they really love languages, they like to meet new people and learn about their cultures. It goes without

saying that knowledge of language other than our mother tongue enables us to feel comfortable while travelling, and enjoy literature, movies and music from other countries. Just the idea of being able to understand the way the people in other parts of the world think and live would inspire many people to become bilingual and/or explore the field of bilingualism, as a whole. Taking into account the rapid technical development that makes the communication easier and cheaper than ever before, it is not much of a surprise that more and more people wish to become bilingual and are looking for the best possible ways how this can be accomplished (Altarriba et al., 2008: 8).

1.2.4 How to raise a bilingual child?

Finally, there are parents who consider bringing up their children bilingually. They might want to learn more about the process of becoming bilingual and, eventually, discuss their experience with other parents in the similar situation (Harding-Esch et al., 2006: xiii).

Harding-Esch et al. (2006: xv) and Rosenberg (1996) agree that the family as a social unit has changed dramatically over the past twenty years or so. As a result, there is now a greater diversity of family types in the modern society and the nuclear family unit is no longer prevalent. More and more parents decide to set up a bilingual home these days. In particular, the extended families whose members do not live together consider bilingualism an absolute necessity. Nonetheless, "bilingualism really is not something that simply happens" (cf. Rosenberg, 1996). Therefore, it is of utmost importance for researchers to focus on the process of raising one's own child bilingually to help the families to evaluate their bilingual situation and provide answers to questions, such as: How to achieve a balance between the languages? Is the 'one parent, one language' strategy a key in bilingual language development? How important is the quality of the interaction between the children and the care givers? Are there any advantages to bilingual language development? Knowing more about these topics will help the parents and care givers to better plan the bilingual development of their children (cf. Harding-Esch et al., 2006: xiii, xv, Rosenberg, 1996).

Listed above are some of the most significant topics in bilingual research which should help us to provide an answer to the question of why it is important to explore bilingualism. Some of them will be elaborated on in subsequent chapters. Other topics, though highly interesting (e.g. L2 learning and L2 teaching to adults), will be left for now, as they go beyond the scope of this thesis. In the following, I will look briefly at the different (linguistic) approaches to

bilingualism and how these have evolved. (Altarriba et al., 2008: 8, Romaine, 1995: 7, Milroy, 1995: 2, Harding-Esch et al., 2006: xiii).

1.3 Different approaches to the bilingual language acquisition: the historical context

Due to limitations of space, I cannot provide an exhaustive historical review of all the research on bilingualism, but confine myself to presenting a brief chronological summary of the most influential studies. In doing so, I look at their major flaws that typically stem from the traditional comparison of monolingual and bilingual speakers. At the same time, I point out the most innovative contributions of these studies to the field of bilingualism. It should also be mentioned that I am fully aware that anyone else might select different studies. Thus, I focus on the kind of research that is relevant for my further discussion (Milroy, 1995: 4, Hakuta et al., 1985: 320).

In connection with early studies of bilingualism, Milroy (1995: 3) mentions famous Bloomfield's (1927) account of English/Menomini bilingual children, which, like many other studies of the period, stresses the significantly lower linguistic achievements in bilinguals in comparison with monolinguals. Hakuta et al. (1985: 320) give an account of some other studies in which bilinguals were presented as speaking with foreign accent in either of their languages, having smaller vocabularies, insufficient writing skills etc. Unfortunately, these findings about the negative effects of bilingual language acquisition often developed into widely respected theories, which deeply influenced educational policies and practices (Milroy, 1995: 3).

The theory of *semilingualism* was one of the outcomes of the above mentioned misconceptions about bilingualism. This theory was first introduced by educational psychologists in Sweden and Canada to label children who have (supposedly) less than native-like command of their languages. Such children were thought of as incapable of benefiting from mainstream educational system. Simply put, semilingualism was considered a handicap with serious consequences for the child's intellectual advancement. As Grosjean (1998: 133) points out, there are at least three questions that need to be answered before a child is classified as semilingual: (1) Is the child still acquiring one or both languages, is s/he adjusting to the new linguistic environment and thus restructuring one of her/his languages? (2) In which mode is the child at home and is the monolingual mode (e.g. at school) just being discovered? (3) What is the foundation in the child's mother tongue like? Once these questions are answered, it becomes clear that the 'semilingual' child is most probably just

getting used to new environment, new language, new domains of use etc. (Grosjean, 1998: 133, Milroy, 1995: 3, Hakuta et al., 1985: 321).

From what has been written about the early studies by linguists like Romaine (1995) or Grosjean (1998), as well as from what has already been discussed in this paper, it is clear that most of the early studies suffered from numerous methodological problems. Let me now mention the most significant variables that many studies failed to control for. First of all, most of the authors of early studies did not take into consideration the biographical data of the participants, such as sex, socio-economic and educational status (Grosjean, 1998: 133). Hakuta et al. (1985: 321) mention two studies that represent an exception to this rule. The first of them was carried out in 1930 by McCarthy who highlighted the fact that over 50% bilingual school children in the US came from families with low socioeconomic status. Similarly, in 1925, Fakuda cautioned that the majority of monolingual English speakers who received highest scores on various psychometric tests of intelligence belonged to the occupational and executive classes. Yet, the majority of researchers who explored the effects of bilingualism on the child's cognitive development largely ignored these variables. This is also the main reason why the early studies on bilingualism are considered invalid by the present day linguists (Hakuta et al., 1985: 321).

Second, the most serious methodological difficulty of early studies is that the linguistic background of the participants was not always clear, that is the researchers often failed to make sure whether their subjects were balanced bilinguals or just monolingual of their first language. Obviously, those children who were still in the process of acquiring the language at the time of testing scored much lower than monolinguals in that language. Thus, at the end of the 1950's, bilingualism was still considered as something negative, a problem rather than an asset. This general assessment was based on the consistent results of the above mentioned research, which reported that monolinguals, in general, received much higher scores on tests of verbal intelligence. Regarding non-verbal abilities, findings were also in favour of monolingual speakers though the reported differences between the tested groups were rather inconsistent (Grosjean, 1998: 132, Hakuta et al., 1985: 321).

Peal and Lambert's *The Relation of Bilingualism to Intelligence,* which appeared in 1962, is still referred to as one of the most influential studies on bilingualism for at least two reasons: it stresses the importance of choosing appropriate bilingual participants, with the result that most of the subsequent studies gradually adopted the standard of a group comparison between

balanced bilinguals and monolinguals, while paying attention to the major characteristics of the bilingual subjects, including language history, language use and language proficiency. Second, it proves that access to two languages can have a positive impact on the cognitive development of the bilingual individual (Hakuta et al., 1985: 319f, Milroy, 1995: 5).

Peal and Lambert's experiment was run with 10-year-old bilingual and monolingual children who were all enrolled in the same school system in Montreal (Canada). In order to make sure that they were working with balanced bilinguals, Peal and Lambert tested the children by four measures: the relative frequency of words in a word association task in L1 and L2, the relative frequency of words in L1 and L2 recognized in a series of letters, the frequency of words detected in L2 from a subset chosen from the Peabody Vocabulary Test, and the subjective self-ratings on language proficiency in L2 (Hakuta et al., 1985: 322). On the basis of this pre-test, Peal and Lambert distinguish between 'balanced bilinguals' and 'pseudo-bilinguals'. The latter have been defined as knowing "one of their languages much better than the other and not using their second language in communication"[2] (Hakuta et al., 1985: 319). Only those children, who appeared to be using both their languages on a daily basis from an early age were labelled as balanced bilinguals and could participate in the study. Unlike the researchers before them, Peal and Lambert reported that bilinguals received higher scores on most tasks testing both verbal and non-verbal abilities. Furthermore, bilinguals turned out to have more "diversified structure of intelligence" and "more flexibility in thought" (cf. Lambert, 1977: 16, Hakuta et al., 1985: 322).

However, it has to be admitted that Peal and Lambert's study (1962) had certain methodological problems. As Hakuta et al. (1985: 322) points out, the project received criticism for being biased against the monolingual participants. These complaints have been supported by the following arguments: first, the bilingual sample contained only those children who received certain score in the *English Peabody Picture Vocabulary Test*, which is typically used to test IQ in monolinguals. Second, the bilingual participants in the study were somewhat older than the monolingual participants. Thus, it might also be the case that the bilinguals' high results go hand-in-hand with their longer school attendance. Nonetheless, this study was innovative in its distinction between balanced bilinguals and pseudo-bilinguals, which has contributed to the growing awareness of the factors that need to be controlled for when selecting bilingual speakers for study purposes. Moreover, it stimulated research on

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[2] Originally cited in Peal and Lambert (1962).

bilingual language acquisition, which not only confirmed the positive results of Peal and Lambert's study but also has provided much needed support for linguists' assumptions about the positive effects of balanced bilingualism on the child's cognitive development (Hakuta et al., 1985: 323, Harding-Esch et al., 2006: xv).

1.4 Summary

In summary, I hope that this introductory chapter has provided a necessary basis for the rest of this thesis by emphasizing the multidimensional nature of bilingualism. I have tried to show that, instead of trying to discover the most accurate definition of bilingualism, it is better to describe a bilingual individual with regard to the circumstances of her or his linguistic/social background, language proficiency, language use etc. (cf. 1.1). In Section 1.2, I stressed the importance of bilingual research as a source of information for bilingual families or L2 teachers. As the traditional nuclear family unit has undergone radical changes during the period of past 20 years or so, more research is needed to help the parents to bring up successful bilinguals. Bilingual education is another field of bilingual studies that deserves attention of researchers as more efficient teaching methods are still needed for the teachers to be able to meet the linguistic and educational needs of bilingual children in the best possible way. Finally, I pointed to the flaws of the early bilingual research and emphasize the findings of carefully conducted study by Peal and Lambert (1962), which revealed that bilingualism has a positive impact on cognitive and linguistic development (cf. 1.3).

Taking the discussion of bilingualism provided in this chapter as a point of departure, I now turn to discuss the relationship between the social context and bilingualism.

2. Societal aspects of bilingualism

Myers-Scotton (2006: 108) defines *attitudes* about languages as "assessments that speakers make about the relative value of a particular language". Consequently, the views on bilingualism are influenced by judgments and actions that stem from people's attitudes towards the languages in question. Vega (2008: 185f) makes exactly the same point: he maintains that the process of becoming and remaining bilingual is largely dependent on how bilingualism is perceived by others. In this chapter, I discuss how the attitudes and perceptions that groups or individuals have about bilingualism translate into the decisions that individual speakers or politicians make about bi- and/or multilingualism. This is done by reviewing the relevant debate about bilingualism and bilingual language education in Norway and in the U.S. Moreover, I look at the fears that need to be overcome on the way towards truly bilingual/multilingual society. Thus, the focus is on bilingualism from a socio-psychological perspective (Beardsmore, 2003: 10, Myers-Scotton, 2006: 110).

2.1 The relationship between bilingualism and social identity

According to Hogg (2006: 111), "the *social identity theory* is a social psychological analysis of the role of self-conception in group membership, group processes, and intergroup relations", where 'a group' is defined in terms of people's self-conception as group members (cf. Hogg, 2006: 111). This approach addresses issues such as stereotyping, normative behavior, discrimination, prejudice, intergroup conflict, leadership, group cohesiveness, and ethnocentrism. It was first introduced in the early 1970s by Henri Tafjel, and has gained many followers over the past 40 years. In particular, the late 1980s witnessed rapid developments in the area of social identity research, and the social identity approach still remains popular among social psychologists, sociologists and linguists (Hogg, 2006: 111ff, Vega, 2008: 186f).

As Vega (2008: 186f) points out, the social identity theory implies that people develop a stronger bond with members of their group (in-group) with whom they share the same sets of attributes. Conversely, people tend to stay away from members of an external group (out-group), give them less attention, and stress the intergroup differences (cf. Hogg, 2006: 18, Vega, 2008: 187). As such, language is also an attribute that marks social identity. In order to demonstrate the link between these, Joseph (2004: 2f) asks his readers to imagine three strangers waiting at a taxi stand. At the moment when an empty taxi passes by, three different comments emerge:

(6)   (a) Outrageous.

        (b) I say.

        (c) Fuckin hell.   (cf. Joseph, 2004: 2)

Having read these remarks, most of us probably have some idea about how (6a), (6b), and (6c) look like, what they wear, what kind of background they have, what they do for living, and whether we would like them to be our friends or not. However, as Joseph (2004: 2) points out, it does not matter how well these utterances fit with the 'true' identity of (6a), (6b), and (6c). What matters here is the power of human imagination to create identities on the basis of what a person said, and, in which language she or he said it. Obviously, if we listened to the utterances in (6a), (6b), and (6c), our reconstruction of their identities would be influenced by their intonation, voices, accents or pitch. Similarly, if we saw them speaking, we would be affected by their appearance, body movements, gazes, or gestures (Vega, 2008: 186, Joseph, 2004: 2).

Clearly enough, language alone does not determine our attitude towards other people. But, as can be seen from the above, the manner in which they speak and what they say play a very important role. With the enormous advancement in modern technologies, we have come to realize that our communication with other people is mostly of verbal nature, taking place via e-mail or cell phone (Joseph, 2004: 3). Under such circumstances speakers are required to follow certain rules in order for smooth communication exchange to be achieved (Vega, 2008: 186). An example given by Vega (2008. 186) will suffice to illustrate how these rules operate in practice. In an English monolingual environment, for instance, Standard English enjoys higher status than other varieties. Thus, if we want to make an appointment with a representative of a renowned British company, speaking an earthy Yorkshire dialect might not be the best idea. It might well be the case that the person who answers the phone will construct our identity in a similar manner as we did with the imaginative speakers in figures (6a) – (6c) and will not be getting back to us.

So far, I have been concerned with the individual dimension of language and identity as well as the unconscious assessments everyone makes in his or her everyday life (Myers-Scotton, 2006: 110). The point I am trying to make is that it is not only objective criteria, such as language competence of a person, but mainly subjective criteria through which people and their language(s) are conceived in social psychological context (Vega, 2008: 186). In the rest of this section, I cover other dimensions, which include the role of human language(s) in expressing the ethnic and national identities and which, as Joseph (2004: 3) points out, all

stem from the basic level of each individual's attitude. That is to say that it matters *who* speaks the language and in *which* social context. (Myers-Scotton, 2006: 110).

In a chapter dealing with bilingualism and its connection to social identity it is important to say more about the *social identity theory*. As we have seen above, language does not only mark identities of individuals but also the identity of various ethnic groups. Myers-Scotton (2006: 108) looks at the meaning of *ethnic,* explaining that it has its source in the Greek word *ethnos* 'people'. After the Greek variant entered English via Latin (*ethnicus*) in the Middle English period, the meaning of the word was '*foreigner'.* Today, many authors, such as Barbour et al. (2002), Myers-Scotton (2006), or Gubbins et al. (2002) describe the ethnic groups in terms of cultural coherence, shared territory, religion, norms, and, in most cases, shared language. In this way, it is possible to say that there is a sense of 'sameness' inherent in ethnicity; that is, those who belong to one ethnic group have a 'collective consciousness' (Myers-Scotton, 2006: 108, Gubbins et al., 2002: 2).

Myers-Scotton (2006: 108) quotes Williams (1999: 170) according to whom ethnicity contains "social facts […] or ideas experienced by the group mind and expressed and 'reincarnated' in the minds and behaviors of the individual members of the social group." Also, as Vega (2008: 187) points out, there are stereotypes (generalizations) present in an individual person's mind, through which different ethnic groups are viewed and defined. Stereotypes in general are considered something negative - though there are also positive stereotypes, indeed. Thus, people view one language as hideous and another language as beautiful. To illustrate the latter, people from Italy who also speak Italian are not considered a low status group in the U. S. However, this has not always been the case. In the 1920's, for instance, the Italian immigrants (and many other early immigrants to the U. S.) were afforded low status and so was the language they spoke. As a result of the strong assimilation pressure, all Europeans formed one and the same in-group of European Americans, rejecting the need to speak their native languages. These examples illustrate how social context decides whether a certain second language will be embraced or disdained by the society (Vega, 2008: 185ff).

Society's attitude on ethnicity varies greatly. Some consider ethnicity as something given, something that has always been here, while others, e.g. Myers-Scotton (2006) or Gubbins et al. (2002), are convinced that it is mainly boundaries and where they are drawn that determine the existence of an ethnic group. Those boundaries, however, are either mental or political constructs, which implies that they have not existed ever since and can, therefore, be redrawn.

Gubbins et al. (2002: 1f) further explain that in most European countries the names of major ethnic groups, their languages and states are identical. This seems to be one of the major reasons why people view the languages and those who speak it as a sign of a boundary (Myers-Scotton, 2006: 109). Nevertheless, nation and ethnic group are not the same things. Unlike nations, ethnic groups can be spread over the vast areas, and can intermingle with other groups. This can be observed in those parts of the world, where nomadic economy is still common practice. But then there is a very different case of huge cosmopolitan cities which function as a meeting place for people from different countries, of different origins and backgrounds and which seem to favor ethnic variety (Barbour, 2002: 6).

Within one nation state, the degree of ethnic tolerance may be relatively high, and the citizens may be clear about the difference between the meaning of ethnic groups and nations. In the modern U. S. society, for instance, the European Americans are on considerably good terms[3] (Barbour, 2002: 7). They are fully integrated members of American society, with an U. S. identity but, at the same time, they might refer to themselves as being Czech-American, Irish-American, or French-American etc. Nevertheless, if one of these minorities wishes to maintain a language other than English, bilingualism will most probably be necessitated within this particular group because of the higher status of English. This is also the case in Canada, where English is favored over French, despite the fact that both languages are equal before the law (Vega, 2008: 187ff).

Myers-Scotton (2006: 109) gives another example of a boundary between ethnic groups symbolized by language. Speakers of Welsh in Britain are mostly English/Welsh bilinguals today. Even though both languages are supposed to be on an 'equal footing' (Vega, 2008: 189), Welsh is still afforded lower status than English. It is also remarkable that the English word *Welsh* used to be *wælisc* in Old English and meant 'foreign'. Obviously, the Welsh were a people who preceded the Anglo-Saxons in Great Britain. But Welsh is a Celtic language, which is very different from Germanic languages, in this case from English. Thus, it is not much of a surprise that the Anglo-Saxon tribes labeled the Celtic population as 'foreign' (Myers-Scotton, 2006: 109). This separation of 'we' (in-group) from 'the other' (out-group) based on ethnic origin and language is less visible in Scandinavia, where knowledge of

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[3] Unfortunately, this cannot be said about the relationship between European-Americans, African-Americans, native-American, and Mexican-Americans (Barbour, 2002: 7).

several Scandinavian languages is welcomed because of the cultural and geographical proximity of the countries in question (Vega, 2008: 189).

In this section, I have provided an insight into the attitudes, both positive and negative, that have a decisive influence on how bilingualism is perceived by the society. In general, it seems to be true that bilingualism is viewed positively if relations between in-group and out-group are good, if they respect each other and are on equal terms. Under these conditions, bilingualism is encouraged. Unfortunately, matters are not always that ideal. The problems arise when the language of out-group becomes a target of the negative perceptions from in-group. With low status language as a mother tongue, members of out-group can easily lose their L 1 and eventually replace it with the language of the majority.

In the next section, I focus on the societal perceptions of bilingualism in the Norwegian context. Moreover, I review the changes that have occurred in the Norwegian educational system as a result of the increase in the number of immigrants during the past 30 years.

2.2 Bilingualism in Norway

According to the Pedagogisk psykologisk senter in Karmøy (Norway), the percentage of persons born in families with other than a Norwegian background in 1970 was 1, 5%. Since the early 1970s, Norway has received large numbers of immigrants from many different countries, including Iran, Afghanistan, Sri Lanka, Somalia etc. Moreover, the annual quota of refugees is also accepted. Consequently, the percentage of people with both parents of non-Norwegian origin has increased to 7, 6%. If we also include people with at least one parent born in a country other than Norway, we notice an increase in the number of newcomers from 1, 5% in 1970 to 12% in 2004. From these numbers, it is possible to see that Norway has experienced what Lanza (2004: 71) calls "the advent of multilingual and multicultural dimension to Norwegian society".

However, societal bilingualism is, by no means, a new phenomenon in Norway. In fact, it has been common among the indigenous Norwegian Sámi people, who occupy the northern-most territories of the country (Lanza, 2004: 72). Even though the Norwegian Sámi are the most numerous of the combined Sámi peoples (Lapp) who are scattered over the northern areas in Sweden, Finland and Russia, they still represent only about 2% of the total population in Norway (Bucken-Knapp, 2003: 101). From the period of 1880 until after WW II, the Sámi had been a subject of an official policy of *fornorskning* (Norwegianization). What was also

typical for this period was the promotion of *Nynorsk* (New Norwegian), a language based on rural western dialects, which was 'constructed' by Ivar Aasen after the dissolution of the Danish/Norwegian union. Other factors that contributed to the linguistic oppression of the Sámi people were increasing Norwegian nationalism and fears over the security of the northern border. With the declining nationalism after WW II and concerns about the northern border in the early 1990s, the linguistic oppression of the Sámi also came to its end (Bucken-Knapp, 2003: 43, 106f, Lanza, 2004: 72).

As a multicultural and multilingual nation, Norway faces numerous challenges in meeting the needs of children who come to school speaking a minority language. According to Lanza (2004: 74), it is of utmost importance to differentiate between children who have one non-Norwegian parent and children whose parents are both of non-Norwegian origin, e.g. immigrants. In the former case, the children are typically bilingual and bicultural and have little or no difficulties speaking and understanding Norwegian by the time they enter school. However, the education of the latter group of children is a complex one. One might think that in a country, where immigration has been an issue since the early 1970s, minority students receive their education in both their mother tongue and Norwegian at school. Matters are in fact not that easy, as we will see in the course of this section (Barbour et al., 2002: 1, Garcia, 2008: 321f).

In discussing the accommodation of bilingualism and bilingual language education in Norway, I find it useful to reintroduce the issues of attitudes about languages and language ideologies. In the previous section, I focused mainly on positive and negative attitudes that speakers have toward various languages and their relative values. Moreover, I stressed the unconscious nature of attitudes. Regarding language ideologies, they can be thought of as "perceptions of languages and their uses that are constructed in the interest of a specific group" (Myers-Scotton, 2006: 109). As can be seen, attitudes and ideologies overlap to some extent, i.e., both apply to the social value afforded to a language by both in-group and out-group members. Nevertheless, it is language ideologies that focus on the differences between languages, both fabricated and real, and use them to promote various language policies that would benefit certain groups. As Myers-Scotton (2006) states, "in this sense, ideologies rise more easily to the level of consciousness." For an example of negative ideology, see Norwegianization of the Sámi people in the period prior to the WWII (p. 20) (Myers-Scotton, 2006: 109f).

Over the past 30 years or so, the general attitude toward bilingualism and bilingual education has undergone a series of changes in Norway. Lanza (2004: 73) refers to Andenaes (1983: 96) who points to two major misconceptions about bilingual language acquisition. The first misconception holds that the children acquire their first language (L1) very quickly and with little effort. On the other hand, the latter misconception states that L1 acquisition is a very complicated and delicate process, which can be seriously endangered by acquiring another language (Lanza, 2004: 73f). In fact, Lanza (2004) agrees with Andenaes (1983) that the second misconception is most probably a consequence of putting the first misconception into practice. It is based on the observations of the difficulties minority students experience when enrolled in an exclusively Norwegian-medium instructional system. In such environment, minority students are not only taught in a language they barely understand, but they are also required to have results comparable to their Norwegian peers. Placing the minority students in the mainstream classrooms has been a common practice in Norway until the late 1980s (cf. Lanza, 2004: 74, Freeman, 2004: 15).

In the late 1980s, the transition towards a more balanced model of education began, which resulted in *The Norwegian curriculum plan* of 1987 targeted at minority language speaking school children. The major focus of this legislation was on teaching Norwegian to minority students, but it also promoted functional bilingualism. The *Pedagogisk psykologisk senter* in Karmøy (2006) describes functional bilingualism as "a natural and modified practice of languages". They maintain that at the core of functional bilingualism are a bilingual person's two languages, which serve approximately the same communication purposes as a monolingual person's language. In addition, bilingual students were granted (not obligatory) a few hours of education in language of their home (*morsmålsundervisning* 'mother tongue instruction') (Lanza, 2004: 74, Pedagogisk psykologisk senter in Karmøy, 2006).

In the wake of the 1987 curriculum, bilingual students could take advantage of instruction in all languages, including English before this offering was removed from the curriculum in Oslo in 1993. Since then, there have been discussions about the positive impact of the bilingual children's mother tongue on their educational advancement. Among the main arguments in favour of instruction in minority languages at Norwegian schools were its positive impact on the bilingual children's cognitive development and more effective learning of the majority language. These debates culminated in 2003 – 2004 in the issuing of the Parliamentary White Paper 49, which states that "the government is of the opinion that competence in mother tongue is an important resource". Consequently, all Norwegian

municipalities are obliged to provide education in minority languages for children at primary and lower secondary schools until they achieve a certain level of proficiency in Norwegian that would enable them to take part in mainstream teaching (Lanza, 2004: 74, Pedagogisk psykologisk senter in Karmøy, 2006).

Obviously, it is easier for some minority students to bridge the language and cultural gap than it is for others. According to Lanza (2004: 72), the English speaking pupils, who were the third largest group of all foreign-language speaking school children in Norway in early 80'[4], encounter fewer negative attitudes towards their mother tongue and culture than their peers from non-Western backgrounds. At the same time, the English-speakers tend to struggle less with comprehension at school.

The main reason why it is easier to meet the linguistic and educational needs of the English-speaking children might be the close relationship between the English and the Norwegian language. Both languages belong to the Germanic branch of the Indo-European language family, and share a lot of grammatical features. Moreover, English is a compulsory subject at Norwegian schools since the end of WW II when it replaced German in the national curriculum. Today, it is taught to Norwegian school children as young as five years of age. Therefore, it only appears natural that Norwegians under a certain age who have considerable awareness about English language, literature, geography, and culture are more likely to socialize with an English speaker than with a speaker of a language they have never learned before (cf. Lanza, 2004: 77, Garcia, 2008: 329).

In order to close the gap that divides the majority and minority language speakers, it is of utmost importance for parents, teachers and educational authorities to emphasize the linguistic and ethnic equality among the children. As Garcia (2008: 329) suggests, they can achieve this by helping the Norwegian-speaking children to understand the cultures of their African and Asian peers and perhaps also learn their languages. As a result, language minority students gain higher status and more confidence in their ability to learn Norwegian (cf. Garcia, 2008: 329, Chin et al., 2007: 124).

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[4] The Urdu-speakers ranked first in percentage (17%) before Vietnamese-speakers (15%). However, Lanza (2004: 73) cautions that these statistics do not take into account the family status of minority students. She has it that the English speaking children were, most likely, born in Norwegian/English families, while the other children were born to parents of non-Norwegian origin. Families, in which both parents are of American or British origin usually come to Norway for business purposes and send their children to private American or British schools. This is the main reason why their children are not included in the statistics cited above (Lanza, 2004: 73).

Much discussion in this chapter centred on the changes in the attitudes towards bilingualism and education of minority language-speaking pupils in Norway. In particular, I have stressed the shift from an exclusively Norwegian-medium instructional system to a system, which grants education in minority languages to children with limited Norwegian skills. I concluded this section by emphasizing the role of teachers, parents and politicians in promoting the positive attitudes towards cultural and linguistic diversity.

In the subsequent section, I discuss the advantages of bilingual language education of minority language-speaking children in more depth. In so doing, I review some of the efficient bilingual teaching strategies that have recently been applied towards these children in the U.S. to help them to improve their academic performance. In addition, I point to the conditions that need to be met before these strategies can be put into practice.

2.3 Bilingualism in education: the U.S. context

In this section I discuss research into bilingual language education, particularly education of minority language-speaking pupils enrolled in mainstream schools. Over the past four decades, industrialized societies, such as the U.S. and/or Norway, have been characterized by the bulk of debates about this topic. With the growing number of immigrants and refugees from all around the world, politicians and educational authorities are confronted with the question of how to treat bilingual children in majority schools. As Garcia (2008: 323) and Cummins (2006: 4) point out, discourses about bilingual and bicultural language education vary greatly. Garcia (2008: 323) quotes Chavez (1992: 2) who comments on the situation of Spanish-speaking pupils in American majority schools:

> "Every previous group – Germans, Irish, Italians, Greeks, Jews, and Poles – struggled to be accepted fully into the social, political, and economic mainstream, sometimes against the opposition of a hostile majority. They learned the language, acquired education and skills, and adapted their own customs and traditions to fit an American context."

This claim resonates with another observation about bilingualism and its implications. The famous historian Arthur Schlesinger Jr., in his *The Disuniting of America,* concluded that several negative consequences result from bilingual and bicultural education that can threaten the traditional American ideal of assimilation. These consequences are:

> "Using language other than English dooms people to second-class citizenship in American society. [...] Institutional bilingualism remains another source of the fragmentation of America. [...] The ethnic identification often tends towards superficiality".   (c.f. Schlesinger Jr., 1991, 1992, 108f, 132)

The key for educational advancement in the U.S., Schlesinger argues, is not promoting bilingual programmes on public schools but minimal recognition of the minority children's

L1 and subsequent assimilation through the total immersion into the English language. He blames the government grants that support bilingual language education for maintaining the victim status of minority groups. Bilingual language education, he maintains, prevents the young bilinguals from claiming the numerous opportunities of educational and economical advancement in the U. S. society (Garcia, 2008: 323, Schlesinger Jr., 1992: 130).

Garcia (2008), Harding-Esch et al. (2003), Cummins (2006) and others have arrived at a very different conclusion from the above. These linguists strongly disagree with the discriminatory discourses expressed by Chavez (1992) and Schlesinger Jr. (1992) about bilingualism and biculturalism and point to their own research which shows that bilingual language education enhances the cognitive and linguistic abilities and improves the minority language-speakers' access to higher education. Cummins (2006: 5) also cautions that the negative statements about bilingualism and biculturalism can prevent the educational authorities from viewing the linguistic and cultural variety as resources rather than problems. According to Cummins (2006: 5), it is in raising the awareness of policy-makers and general public where the challenge lies for researchers working in the field of bilingualism.

2.3.1   What can be done to improve bilingual language instruction in public schools

Let me now review the efficient learning strategies that help to meet the needs of linguistically and culturally varied students to achieve their academic goals. Garcia (2008: 326), Cummins (2006: 33) and Callahan et al. (2004: 110f) agree that bilingual students cannot progress towards higher education without gaining academic proficiency in English. According to Callahan et al. (2004: 110) and Cummins (2006: 34) this is often a long process, which usually takes about 5 years or longer. They further explain that in acquiring literacy in the majority language, the bilingual children's mother tongue plays a decisive role. It should, therefore, be among the main goals of public schools to use the primary language skills to develop the academic English proficiency, rather than teaching minority language-speakers exclusively through English (Garcia, 2008: 327).

As the research shows, developing English language abilities through primary language instruction with bilingualism and biliteracy as a main goal pays off. Not only do students in these programmes study well, they also approach grade norms in English much faster than their peers taught only through English (Cummins, 2006: 35, Garcia, 2008: 327). Garcia (2008: 329) gives an example of relatively new programmes, which benefit children with immigrant background in the U.S. They are known as the Dual Language (DL) programmes

and aim to provide quality teaching for bilingual children and teaching L2 to English speaking monolingual children. Language is taught through content, while teachers are free to adapt curricula in accordance to the linguistic needs of the pupils. In addition, content lessons are used to teach vocabulary and grammar. To avoid linguistic isolation of language minority children, they are placed in classrooms together with their English-speaking peers. Without this contact, Callahan et al. (2004: 117) caution, immigrant children are not only deprived of the opportunity to interact with native speakers, but they also obtain less information about schooling system and future options, which are frequent topics of conversation among middle-class English speakers.

Two patterns of language division in the U.S. schools are most common. At the elementary level, immigrant children are instructed in their L1 90% of the time (90:10 pattern), and this percentage gradually decreases to approximately 50% by Grade 4 or 5 (50:50 pattern). Consequently, such pupils begin to approach grade norms by Grade 6. Unfortunately, this cannot be said about their language minority peers in English-only classrooms who are still far behind in academic language skills by the time they finish the same grade. Although most programmes target Spanish/English bilingual students, there are schools that offer instruction in French, Portuguese, Cantonese, Japanese, Arabic, Navajo, Korean, and Russian (Garcia, 2008: 329, Cummins, 2006: 35).

Underlying the DL programmes are many systematic steps that need to be taken to change the existing school system. Baker (2007: 145) lists the following strategies that aim to increase effectiveness of DL programmes. These strategies are interdependent and help children to bridge the linguistic and cultural gaps that characterize many societies all over the world.

2.3.1.1 Shared vision, clear goals

According to Callahan et al. (2004: 110f), it is unarticulated and unclear academic goals for minority students that still represent one of the most serious problems for many school districts. With these goals missing, there is little hope for language minority students to aspire for higher education, unless they take part in a programme designed by an individual or a group especially interested in the educational advancement of these students. It is, therefore, of utmost importance for school staff to cooperate and work toward consistent goals. Baker (2007: 145) proposes several questions that might guide educational authorities towards better and more efficient bilingual education: "What language outcomes are desired and achieved?" and/or "Do the process strategies (e.g. allocation of two languages across the content

curriculum) optimize achievement across different subjects?" (Baker, 2007: 145, Callahan, 2004: 110f).

2.3.1.2 Adequately trained staff

The percentage of teachers who have more than three minority pupils in their class but have no specialized training to serve effectively both language minority and majority students is about 70% in the U.S. Nevertheless, there are more and more schools that are concerned with professional development of their staff, including the *International High School* in New York City, *Franklin High School* in Stockton, California, and many others. The principals at these schools require their employees to be aware of curriculum strategies in teaching bilingual students and to have professional training in the field of bilingualism and L2 teaching (Baker, 2007: 145, Callahan et al., 2004: 111,120).

2.3.1.3 Literacy, biliteracy, cross-cultural awareness

In order for DL programmes to be efficient, bilingual and biliteracy need to be encouraged across curricula (also in science and/or IT - classes), with emphasis on the gradual transition between particular ages and levels. A successful bilingual programme typically promotes biliteracy, which appears to have numerous positive implications for individual pupils and the social environment in the schools. For individual pupils, the main advantage lies in the reinforcement of oral skills in both L1 and L2. At the societal level, biliteracy helps pupils to understand that other languages and cultures are equally important as their own. Consequently, a minority language, which is afforded a higher status, will become "both an emancipator and an educator" (Baker, 2007: 146) and will enable its speakers to access knowledge and express their ideas. Last but not least, language minority children whose L1 is accepted and encouraged as a means of communication and education in their classroom will be more motivated to learn the language of their majority language speaking peers (Garcia, 2008: 329, Baker, 2007: 146).

The aim of this section was to present some of the theoretical constructs and related practices that attempt to inform educators and policy-makers about the importance of bilingual language education both for language minority children and their majority language speaking classmates. In sum, there are numerous potential advantages to bilingual programmes. First, the time children spent with their L1 is not time wasted in learning L2. On the contrary, children can develop literacy skills in L2 without giving up their L1, and can preserve their L1 without sacrificing their L2 proficiency. Thus, bilingual instruction helps the minority

students to overcome the linguistic barrier smoothly, and without losing their L1. Second, bilingual education enables both immigrant students and majority language speakers to appreciate different languages, cultures, and religions and view them in a more sensitive way. Third, bilingual education emphasizes cultural and linguistic equity in schools (Garcia, 2008: 336, Callahan et al., 2004: 111, Baker, 2007: 148). It is these assets, Baker (2007: 148) maintains, which make the bilingual programmes worthy of further development and expansion.

2.4 Summary

To sum up, I hope that my discussion in this chapter served to show that the way, in which a society responds to bilinguals, is determined by attitudes and ideologies, rather than by the personal qualities and/or language proficiency of a bilingual individual (see 2.1 for discussion). Therefore, it becomes increasingly important to promote the positive attitudes towards bilingualism. In Sections 2.2 and 2.3, we saw how this is done in Norway and in the U.S. The educational authorities in these countries have begun to place a greater emphasis on providing the instruction in minority languages in order to enhance the academic performance of the immigrant children. In the U.S., for example, the debates about the positive influence of the bilingual children's mother tongue on their performance at school resulted in introducing Dual Language programmes into the mainstream schools. These programmes help the minority language-speaking children to learn the majority language and the majority language-speaking children to learn to appreciate another culture and language than their own (Garcia, 2008: 329, Chin et al., 2007: 18, 128).

In Chapter 3, I explore the language acquisition in simultaneous bilingual children, describing how it is different from or similar to the language acquisition in monolingual children. The importance of positive attitudes towards bilingualism for both the linguistic and cognitive development of bilingual children will be emphasized.

3. Monolingual vs. bilingual language acquisition: Does it make a difference?

This chapter is devoted to the distinction monolingual vs. bilingual language acquisition. Special emphasis is placed on language acquisition in simultaneous bilingual children. This chapter provides the foundation for the empirical part of my thesis.

3.1 Language development in monolingual children

When they are three or four years old, most children have already acquired a great many important elements of their language. By the time they enter school, they have a word stock of about 14, 000 words (O'Grady, 2007: 8), which means that they are able to vary their utterances in accordance to the topic of conversation, and, moreover, they have relatively good control over grammar. They can produce and comprehend a great variety of constructions, such as questions, compound sentence, negative statements etc. (Gleason, 2009: 7). In other words, children appear to follow quite a universal schedule as far as their language advancement is concerned (Gleason, 2009: 1). It is also remarkable that there are strange limits to this advancement – children are typically good at acquiring language, but not as good at learning when to use it and how (O'Grady, 2007: 1):

> (7) "Daddy, did your hair slip?" – *three-year-old son, to his bald but long bearded father*
> (cf. O'Grady, 2007: 1)

> (8) "I wish someone we know would die so we could leave them flowers." – *six-year-old girl, upon seeing flowers in a cemetery* (cf. O'Grady, 2007: 1)

> (9) "How will that help?" – *kindergarten student, when the class was instructed to hold up two fingers if any of them had to go to the bathroom"* (cf. O'Grady, 2007: 1)

Most of us, adult speakers, consider these remarks funny because they do not accomplish what Gleason (2009: 5) calls 'desired social ends'. What they do accomplish (e.g. correct pronunciation, grammar etc.), however, we take for granted, until the time comes when we start learning a new language ourselves. Then, we realize that we are not able to discriminate between sounds, we keep forgetting words we learned just couple of days ago, we cannot express our thoughts properly or not at all, and we cannot understand speakers of that language either (O'Grady, 2007: 1f).

The entire process of language acquisition in children is very intriguing indeed. Despite their limited communicative competence, young children in examples (7) to (9) seem to have a considerable command of their mother tongue. Here the question arises of what it takes to learn how to use the language successfully? How do they proceed from mere recognition of speech signals to the point where they can actually talk? What happens in between these two stages? Does the language they acquire have impact on how they think? In what follows, I shall be tracking the language development of children from infancy until they are of school age (O'Grady, 2007: 1ff, Gleason, 2009: 1f).

3.1.1   Lexical and semantic development in monolingual children

By the time they celebrate their first birthday, most children have taken their first steps, they have a few teeth, and enjoy eating solid food. Their cognitive development is also in a full swing – they readily respond to gestures like pointing, and are able to focus on the same things as their caregivers. It is, therefore, of little surprise that their first words appear by this time, as well (O'Grady, 2007: 7).

At first, the vocabulary growth is rather slow and new words appear with a frequency of one per week or so. But the lexical development speeds up considerably once children attain the 50 word level (typically by age 18 months). At that point, parents often experience what is called a 'vocabulary spurt' (O'Grady, 2007: 8) or 'vocabulary explosion' (Barrett, 2004: 363) in which the child's vocabulary is growing by eight or more words each week.

However, Barrett (2004: 363) and O'Grady (2007: 8) caution that the vocabulary explosion is not displayed by all children. O'Grady (2007: 8) refers to Mervis et al. (1995) who claim that the spurt does not occur in some children until they have reached the 100 word level. Other longitudinal studies document that vocabularies of 1/3 of all children develop rather gradually without any sudden upturns in the speed of learning new words. On the basis of these data, some linguists conclude that the spurt is not a universal phenomenon, while others still support it, claiming that methodological flaws rather than individual variation are responsible for the results of these longitudinal studies (Dromi, 1999: 102, Barrett, 2004: 363, O'Grady, 2007: 8).

Barrett (2004: 363) further explains that the rates of spontaneous word production do not give us accurate information about the size of early vocabularies; a better idea about these we can get from the rates of children's word comprehension. A simple method helps researchers to

keep track of all the words which children can understand: if the child shows that she or he understands a new word, a caregiver writes it down in a diary. To obtain more precise and reliable data, diary studies have recently been improved by giving caregivers checklists of regular words their child is likely to produce/comprehend in the course of its first years (Uccelli et al., 2009: 112). This method reveals that by age 18 months when they can produce about 10 words on average, children are able to comprehend from 60 – 110 words. It is apparent from the above mentioned data that there is a great degree of variety in children's lexical development, indeed (Barrett, 2004: 363).

The first words in children's vocabularies appear to be remarkably similar across languages. Analyses of early vocabularies show that terms which denote familiar objects and actions (e.g. *mama, papa, give*, and *car*) and words which are very often communicated to the child in relevant situations of everyday routines are acquired initially. On the contrary, words which are not meaningful to the child (e.g. *vase, policeman, draw*, and *stone*) are not common first words. Usually, caregivers are quick to aid their children in assigning meaning to their first words, showing them that *mama* stands for "mother" and *papa* for "father". With every newly acquired pattern of word meaning and use, the children's semantic systems develop together with their memory and cognition (Uccelli et al., 2009: 111, Dromi, 1999: 110, O'Grady, 2007: 7).

Research reveals that between two and six years of age, children's vocabularies grow at an even higher pace, averaging approximately ten new words per day. At school age, children have acquired about 14, 000 words, and this number keeps on growing by 20 new words a day for the next couple of years (O'Grady, 2007: 8). As Uccelli et al. (2009: 121) point out, this vocabulary growth is crucial for at least two reasons. First, the deeper and larger a speaker's lexical and semantic system is, the easier it is for her or him to express her or his thoughts and ideas with more flexibility and precession. Second, large lexical repertoire is a predictor of strong reading comprehension. If children do not understand the meaning of the words in a text, they will have difficulties understanding the content. In fact, the insufficient knowledge of words is among the main reasons why many children struggle with oral and written language performance (Uccelli et al., 2009: 121).

3.1.2   Morphological and syntactic development in monolingual children

Within a couple of months after the first word production, typically later in their second year, children start to create their first sentences (Zukowski et al., 2009: 139). To illustrate how it is

like to be a 2 year old with something to tell us, O'Grady (2007: 80) encourages his readers to imagine having words, but knowing no rules how to put them together. We would have to use one-word sentences to express our ideas and thoughts, which is roughly what children do before the early syntax emerges.

As Zukowski et al. (2009: 139) point out, even the simplest two-word installments (e.g. *Mama come, daddy book*) can serve as evidence of early syntax. Even though they are very simple and often incomplete, these early utterances are not formed randomly. On the contrary, they seem to be following certain syntactic rules or patterns of usage, which are learned together with words and their meanings from adult utterances (Tomasello, 2005: 100).

The development of children's syntax can be divided into two stages (Radford, 1990: 3, O'Grady, 2007: 80). The first stage, which starts around the age of 18 months, is characterized by the appearance of two-word sentences, although longer patterns of three or four words may also be noticed. In the course of the second stage, which starts around the age 2, sentences get more complex and the missing functional categories (i.e. grammatical morphemes) are gradually filled in (Zukowski et al., 2009: 151, O'Grady, 2007: 80).

Research on early language development shows that from the very beginning of the first stage, the language is characterized by high degree of creativity. The two-word sentences formed by stage I children all over the world are not mere imitations of parental speech; many of these are truly unique and could never have been uttered by an adult speaker. Moreover, these simple word combinations are usually modeled in a very systematic way. They are structured around a small number of open-class words or *pivot words* that clearly dominate most children's speech (see Table 3. 1). Thus, their language consists mainly of nouns, adjectives, and verbs at this particular stage (Hudson, 2008: 143, O'Grady, 2007: 86, Zukowski et al., 2009: 151f).

Table 2 Typical examples of two-word sentences

Andrew	Eve	Gregory
more high	daddy bear	see boy
more cereal	daddy book	see hot
more read	daddy honey	see sock
more car	there Daddy	do it
outside more	there potty	push it

no more	Mommy bear	close it
no pee	Mommy stair	move it
no wet	Mommy do	allgone shoe
bye-bye car	read it	allgone egg
bye-bye Papa	eat it	allgone vitamins
bye-bye back	see boy	allgone watch

(cf. Zukowski et al., 2009: 151, O'Grady, 2007: 86)

As Table 3.1 illustrates, closed-class words are frequently missing from children's utterances. Because of the missing items, such as prepositions, conjunctions, auxiliaries, tense and possessive marking on the verbs, or plural endings, children's language in the first stage was described as the *telegraphic speech*. Even though this term describes well the style of children's speech, it is slightly imprecise in that when people wanted to send a telegram, they were encouraged to omit as many unnecessary items as possible. However, it would be wrong to assume that children in the first stage of language acquisition economize their speech voluntarily. They just have not yet learned how to fit in the closed-class words yet (Zukowski et al., 2009: 152, O'Grady, 2007: 92f, Peccei, 2008: 60).

At the second syntactic stage of language development in children, two important changes take place. First, utterances get more complex as children start putting together three or more semantic relations as in *The car pushed the truck* where *the car* is an agent, *pushed* an action and *the truck* an object (Zukowski et al., 2009: 158, O'Grady, 2007: 88). O'Grady (2007:88) also points to remarkably consistent word order in these early utterances. In fact, the English speaking children get the SVO (subject-verb-object) word order correct 95% of the time[5]. The second change is the development of inflectional morphemes and other closed-class items. Even though some grammatical morphemes are not fully acquired until the child is of school age, this process starts at approximately 2 years of age. In the early 1960s, Harvard professor Roger Brown and his colleagues began to study the order, in which young children acquire grammatical morphemes. On the basis of longitudinal data from three subjects (Adam, Eve, and Sarah) they concluded that grammatical morphemes are acquired in the following order (Brown, 1978: 51, 254, Zukowski et al., 2009: 158, O'Grady, 2007: 94):

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[5] There is, however, an exception to that rule. Occasionally, young children invert the word order when there is no direct object in a sentence (e.g. *Broken the light.* or *Fall down lady.*) (O'Grady, 2007: 88).

Table 3 Typical order of acquisition of grammatical morphemes

1.	Present progressive [2; 0]	(*walking, playing, singing*)
2.	Prepositions 'in' and 'on'	(*in the house, on the floor*)
3.	Plural [2; 0]	(*cats, books*)
4.	Irregular past tense [2; 6]	(*ate, ran*)
5.	Possessive	(*Susie's teddy*)
6.	Copula (uncontractible)	(*This is my cookie*)
7.	Articles [3; 0]	(*the apple, a teddy*)
8.	Regular past tense [3; 6]	(*walked, cooked, jumped*)
9.	Third-person present tense regular	(*she knows; Mommy cooks*)

(Adapted from Hudson, 2008: 127, Zukowski et al., 2009: 160 and O'Grady, 2007: 94)

How do researchers account for this developmental sequence? The data collected by Brown et al. show that *semantic* and *syntactic complexity* best predict the order in which the grammatical morphemes are acquired (Brown, 1978). Taking this finding into account, it comes as no surprise that present progressive and the prepositions *in* and *on* appear early in the children's uses. Not only are they highly regular, but they also encode clear-cut meanings. The third person singular, on the other hand, encodes more complex syntactic information (number and "earliness") and is not that important for conveying the message, because it lacks any straightforward meaning. Therefore, all morphemes that involve functional categories (i.e. regular past tense, third-person present tense regular etc.) occur later than morphemes that involve only lexical categories (i.e. prepositions *in* and *on*) (Brown, 1978: 315, 356, Zukowski et al., 2009: 160, O'Grady, 2007: 95, Peccei, 2008: 60).

Having discussed language development in monolingual children, in the following section I will focus on language development in simultaneous bilingual children.

3.2 Language development in bilingual children

As Paradis (2007: 15) points out, most children all around the world grow up acquiring two or more languages, but they also caution that there are numerous factors that distinguish among different bilingual and multilingual children, including the sociolinguistic context of the language acquisition, the age at which they are first exposed to their languages and the relative dominance of one language over the other. They further explain that these factors determine the rates and patterns of language development as well as the competence in both languages. For the purpose of this thesis, I have decided to focus on language development in

simultaneous bilingual children because they also constitute the sample of my study (Paradis, 2007: 15, Kroll et al., 2004: 169f).

Simultaneous bilingual children are defined by Paradis (2007: 15) as "those whose dual language learning experiences began at birth or at least before the age of 3; 0". Most research on *Bilingual First Language Acquisition* (BFLA) has its source in case studies or reports from caregivers who observe their own children. Just like their monolingual peers, bilingual children are recorded with the help of a 'linguistic diary' during the early stages of their linguistic development. Over the past 10 years or so, much data have been collected that prove extremely useful to researchers and, above all, parents of bilingual children, since the data reveal that simultaneous bilingual children develop their language(s) in the same sequential patterns and eventually acquire the same grammatical knowledge as children acquiring only one language (Paradis, 2007: 15, Harding-Esch et al., 2006: 50, Meisel, 2001: 12).

Research shows that the majority of simultaneous bilingual children grow up in families where each parent is a speaker of different native language and uses that language when speaking to the child, and where one of the two languages is a dominant language of the community. Usually, that language becomes a majority language for the bilingual child, because it is afforded higher educational, political or cultural status and is commonly used outside the home. As Harding-Esch et al. (2006: 51f) point out, there are (at least) four more types of bilingual families, each of which has its specific characteristics. In what follows, I will not outline all of them. Rather, I will limit myself to the type of bilingual environment mentioned above, because it proved to be most efficient as far as the language development of bilingual children is concerned (Paradis, 2007: 15, Harding-Esch et al., 2006: 51f, Meisel, 2001: 12).

Let me now look at how lexical, semantic and morphosyntactic development unfolds in simultaneous bilingual children in order to provide satisfactory answers to the following questions: (1) Does the bilingual child have to learn to differentiate between the two linguistic systems? (2) How do these systems influence each other? (3) Are the acquisitional mechanisms in bilinguals different from those in monolinguals (Paradis, 2007: 17, Harding-Esch et al., 2006: 54, Meisel, 2001: 13)?

3.2.1 Lexical and semantic development in simultaneous bilingual children

Although bilingual language acquisition has been explored for many years, considerable debate keeps emerging concerning the language separation. It should be mentioned at this point that this issue does not seem to bother bilingual children at all. Nonetheless, it is of utmost importance for linguists and psychologists to achieve a better understanding of the differentiation process in order to be able to determine the impact of bilingualism on early linguistic development in bilingual children (Hogan et al., 1975: 349, Harding-Esch et al., 2006: 55, Altarriba et al., 2008: 75).

As Harding-Esch et al. (2006: 55) and Paradis (2007: 18f) point out, one cannot assume from the presence of translation equivalents in the bilingual child's speech that she or he is incapable of separating her or his lexical systems. For instance, if a 3 year old Norwegian/English bilingual child says: '*Det er en* dog' one can also conclude that the child has two different systems indeed, since she or he gets the word order correct and does not insert unnecessary words (e.g. '*Det er en* a dog'). In fact, mixed utterances can be accounted for by many factors, including the children's ages, or the fact that the children are exposed to such utterances in their homes (Paradis, 2007: 19, Harding-Esch et al., 2006: 55).

Even though there is no clear evidence for or against differentiation at the lexical level, there is at least general agreement among linguists that simultaneous bilingual children use the same word learning strategies as their monolingual age-mates (Paradis, 2007: 19). For example, both monolingual and bilingual children's first words contain sounds that are relatively easy to articulate (/p/, /b/, /d/, /f/, /m/, /n/), while the words containing more complicated sounds (/tʃ/, /dʒ/) are left to be learned later (Harding-Esch et al., 2006: 54). However, bilingual children seem to follow a slightly different schedule. Research shows that on standardized measures of vocabulary comprehension and production, monolinguals outperform their bilingual peers in both languages. Toddlers, pre-school children and school age bilingual children all display this effect (Paradis, 2007: 20).

The vocabulary size in simultaneous bilinguals reflects the amount of input in both languages. Obviously, some children receive more input than others, which is then projected in their lexical achievements at school. Harding-Esch et al. (2006: 79) give an example of English/French bilingual parents who decided to bring up their son bilingually, with English as a majority language. However, they failed to do so because of the highly imbalanced proportion of input in each language. An interview with the English speaking father revealed

that he worked approximately 12 hours every day, so that it was his French wife and her mother who were the primary care givers. In this sense, it is not surprising that the boy's English was so poor, that his father had to speak French to him. It is, therefore, of utmost importance for parents to share the child's education equally. If the parents manage to accomplish this task successfully, their bilingual pre-schoolars will benefit from larger vocabularies (Harding-Esch et al., 2006: 79f, Paradis, 2007: 20).

Let me now review the *Volterra and Taeschner's three-phase model* (1978), which is by many linguists, including Harding-Esch et al. (2006: 56) and Paradis (2007: 16), considered the most influential description of how simultaneous bilinguals develop their lexical systems.

In the course of the first stage, the simultaneous bilingual child possesses only one vocabulary which contains words from both languages. However, words from one language have not yet been coupled with their counterparts from the other language. In other words, bilingual children at this stage have only one lexical entry for one meaning, which means that they typically use only one word from the pair or assign different meaning to each of the words. Harding-Esch et al. (2006: 56) illustrate the latter possibility with the case of a English/Swedish bilingual girl who labeled her (high-) chair *stol* but used 'chair' for other (regular) chairs (Altarriba et al., 2008: 75, Harding-Esch et al., 2006: 56, Meisel, 2001: 16).

Crosslinguistic influence between the two emerging lexical systems eventually results in production of *blends* or *compounds.* Harding-Esch et al. (2006: 56f) quote Grosjean (1982) who gives the following examples of English/ French blends and compounds: 'shot' (*chaud* and 'hot'), 'assit' (*assis* and 'sit'), 'pinichon' ('pickle' and *cornichon*), '*lune*-moon', or '*pour*-for'. Research conducted on mixed two-word sentences in simultaneous bilingual children reveals that what might seem to be a mere chaos to the caregivers, is in fact the result of unusually complex processes that help the children to get the complexities of their language situation sorted out in the best possible way. Moreover, mixed utterances are temporary, and begin to disappear around the age of 3; 6 (Paradis, 2007: 21, Harding-Esch et al., 2006: 56f).

During the second stage, the bilingual child is starting to develop two distinct lexicons. Some words are clearly distinguished language-wise, for example 'dog' and *hund* but there are still many words, which are missing from one of the two lexical systems. It is also common that simultaneous bilingual children avoid uttering a word in one language because they cannot get the pronunciation right (Paradis, 2007: 21, Harding-Esch et al., 2006: 57f). Here is an example of a German/French bilingual (2; 6) given by Harding-Esch et al. (2006: 58):

(10)   Father: *Knopf*
         Daughter: Nopf
         Father: *Knopf*
         Daughter: Nopf
         Father: *Knopf*
         Daughter: Boutton   (cf. Harding-Esch et al., 2006: 58)

This is also the point where simultaneous bilingual children begin to translate from one language to the other. This, as Harding-Esch et al. (2006: 58) see it, is the clearest evidence that the child is developing to distinct lexicons. By the time bilingual children are in the third phase, they have their vocabularies sorted out and start mapping out their environments socially − which language is used by whom and when. Moreover, they appear to be gaining more confidence in their use of the two languages (Harding-Esch et al., 2006: 59).

3.2.2   Morphological and syntactic development in simultaneous bilingual children

There is a controversy among linguists regarding whether simultaneous bilingual children have distinguished morphosyntax since there is a possibility that even the initial utterances of monolingual toddlers are not governed by any set of grammatical rules. Serratrice (2001: 43) points to recent research, studying children acquiring morphosyntactic systems in English and in some other more inflected language. These studies have shown the existence of a mismatch between developmental schedules in each language. Generally, simultaneous bilinguals display slower acquisition of inflectional morphology in English than in their other language - be it German, French or Italian. In fact, these bilingual children experience the same developmental stage in which they produce verbs in their uninflected forms just like English monolingual children do. It is worth mentioning, however, that the same children produce a number of inflected verbs in their morphologically richer other language. As Serratrice (2001: 43) and Paradis (2007: 20) agree, this asynchrony in the emergence of inflectional morphology serves as evidence for two differentiated morphosyntactic systems, at least as far as the early development is concerned (Serratrice, 2001: 43, Paradis, 2007: 20).

The observation that there is a tendency for the English bilingual children to acquire English morphosyntax later than the morphosyntax of the other, morphologically richer language can also serve as evidence for the assumption that it is the semantic and syntactic complexity that decides the order of acquisition of grammatical morphology both in bilinguals and monolinguals . Thus, it comes as no surprise that grammatical morphemes are acquired earlier in languages with more consistent, reliable and transparent morphosyntactic cues (Serratrice, 2001: 43).

In connection with morphosyntactic development, crosslinguistic structures in simultaneous bilingual children should also be mentioned. Thus, Paradis (2007: 21) mentions English/German simultaneous bilingual children who overuse the SVO word order when speaking German. He explains that German has both SVO and SOV[6] word order, while English has rigid SVO word order. Thus, the linguistic behavior of English/German bilinguals can be explained in terms of structural ambiguity between the two languages such that one language offers two possible structures, but the other offers only one. Consequently, the more strict system affects the system with more possibilities, but not vice versa:

(11)   "Ich gehe nach Hause, weil ich sehr müde bin."
         * "Ich gehe nach Hause, weil ich bin sehr müde."
         "I am going home because I am tired."   (adapted from Schmid, 2011: 16)

Like lexical and semantic development, morphosyntactic development in simultaneous bilingual children has also been compared to that of their monolingual counterparts for us to see whether or not bilinguals acquire their morphosyntax at slower pace than monolinguals. Researchers reported rather inconsistent results, with some studies documenting less developed morphosyntax in bilinguals if compared to their monolingual peers, while others claim that there is no clear evidence for slower advancement in bilingual children. Such mixed results reveal that acquisition of morphosyntax might be less subjected to the amount of input than acquisition of vocabulary and that the similarities between developmental patterns in bilinguals and monolinguals are more obvious than the differences (Paradis, 2007: 22, Harding-Esch et al. 2006: 55).

3.3 Code-switching and its implications

As we have seen in examples (7) to (9), the development of language is not limited to the acquisition of a linguistic code. Children need to acquire many more skills before they are able to participate in communication. For example, they acquire communicative competence, that is, awareness of rules that govern effective communication, and they also learn how to explain their utterances when others do not understand them (Comeau et al., 2001: 231). As Comeau et al. (2001: 231) point out, children who are brought up bilingually need to gain the same communicative competence as monolingual children and, what is more, communicative competence specific to interaction with other bilinguals. Directly connected to this task is a communicative strategy, which can never be performed by monolingual individuals, by

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[6] In German, SOV (subject-object-verb) word order is restricted to dependent (subordinate) clauses.

definition, and which is commonly referred to as code-switching (Harding-Esch et al. 2006: 63). MacSwan (2004: 283) defines code-switching as "the alternate use of two (or more) languages within the same utterance, as illustrated in (12)."

(12) This morning *mi hermano y yo fuimos a comprar* some milk.
      This morning my brother and I went to buy some milk.   (cf. MacSwan, 2004: 283)

(13) The student brought the homework *para la profesora.*
      The student brought the homework for the teacher   .   (cf. MacSwan, 2004: 283)

To a monolingual person or someone who does not have command of both bilingual's languages, code-switching might seem chaotic and confusing. Therefore, such a person might also have difficulties believing that code-switching does not only function in a highly systematic way, but that it also enables a bilingual individual to take advantage of numerous means of communication and expressiveness (Harding-Esch et al. 2006: 63). Comeau et al. (2001: 231) point to recent research that reveals that simultaneous bilingual children are able to make correct linguistic choices and employ code-switching only if speaking to bilinguals in both their languages. The latter is also the case when bilingual individuals can exploit their communicative resources most effectively. In other words, code-switching, like any other linguistic behavior, is used in meaningful contexts and follows certain rules (Harding-Esch et al. 2006: 63).

A considerable number of studies have attempted to account for linguistic constraints on code-switching, i.e. to explain why some code-switched constructions are allowed and others are not. MacSwan (2004: 285f) refer to Poplack and Sankoff's study (1980, 1981), which was the first one to introduce two general syntactic constraints on code-switching: these are 'equivalence constraint' and 'free morpheme constraint'. The equivalence constraint states that "codes will tend to be switched at points where the surface structures of the languages map onto each other" (MacSwan, 2004: 286). This implies that code switches are allowed only at boundaries which are the same for both languages in question, and disallowed between constituents unless the word order rules are met at the surface structure. Romaine (1995: 127) gives an example from English/Spanish bilingual discourse. In this case, code-switching may take place between determiners and nous, because they are ordered in the same way in both languages. However, English and Spanish do not share the ordering for adjectives and nouns[7]. Therefore, switching between elements in noun phrases such as *his favorite spot/su lugar*

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[7] The English adjectives typically occur pre-nominally, while most Spanish adjectives follow the nouns they modify (Romaine, 1995: 127).

favorito that would result in code-switched constructions such as **su favorito spot, *his favorite spot, *his favorito spot* does not occur in either language (Romaine, 1995: 126f).

Poplack and Sankoff's 'free morpheme constraint' states that "a switch may not occur between a bound morpheme and a lexical item unless the latter has been phonologically integrated into the language of the bound morpheme" (MacSwan, 2004: 286). This principle predicts that the Spanish/English switch **catcheando* is ill-formed, because the English verb *catch* has not been phonologically integrated into Spanish and cannot, therefore, be suffixed by a Spanish bound morpheme *–eando*. *Flipeando* ('flipping'), on the other hand, is considered well-formed, because the verb 'flip' has been phonologically integrated into Spanish (MacSwan, 2004: 286, Romaine, 1995: 126).

3.3.1 Why do bilingual children code switch?

The ability of bilingual children to switch between their two languages with ease at various points in the dialogue has been the focus of many recent studies. Researchers have investigated the reasons why proficient simultaneous bilinguals code-switch at all (Reyes, 2004: 77, Paradis, 2007: 21). As Harding-Esch et al. (2006: 63) and Reyes (2004: 78) point out, simultaneous bilingual children as young as 2 years of age display the ability to code-switch in order to articulate their ideas, express their feelings and emotions, or simply to show, that among their immediate family members they can, if they feel like it, switch from one language to the other and still be understood.

Before I move on to describe different types of code-switching, let me mention two phenomena which should not be confused with code-switching: these are borrowing and language choice. As far as borrowing is concerned, it is defined by Harding-Esch et al. (2006: 63) as "a word or expression from one language used in the other but in a 'naturalized' form' ". This means that the borrowed word is integrated into the grammatical or phonemic system of the other language. It is, therefore, fairly easy to identify in a bilingual's speech, as (14) illustrates:

(14)   *Je vais faire* checker ma *voiture.* (English verb 'to check', for *verifier*, is affixed by the French
           bound morpheme *-er* (infinitive marker) to convey: 'I am going to have my car checked'.)
                                                                    (adapted from Harding-Esch et al., 2006: 63)

Beardsmore (1986: 76) stresses the fact, that code-switching, unlike borrowing, is a fairly conscious technique used by specific groups of bilinguals on specific occasions to talk about specific kinds of topics. This stylistic function, Beardsmore (1986: 77) argues, is one of the

most significant traits of code-switching. Borrowing, on the other hand, can be understood as 'momentary inadequacy' or 'interference' (Beardsmore, 1986: 76). As for language choice, it is also different from code-switching in that the speaker chooses the language of conversation in accordance to the interlocutor, as shown in (15) (Harding-Esch et al., 2006: 63f):

(15) Philip (6; 0), who is visiting France, wants to call his nanny in England:
Philip: *Maman, quell numéro il faut faire?* ('Mum, what number should I dial?')
Mother: *C'est écrit sur la carte qui est devant toi.* ('It's written on the card in front you.')
(Philip dials the number)
Philip: Hello, Nanny, how are you?   (cf. Harding-Esch et al., 2006: 64)

Let me now elaborate on the most common types of code-switching behavior. Altarriba et al. (2008: 86) argue that code-switching is often used as a compensation for insufficient language competence. It might well be the case that the child is not equally strong in both languages and must switch between them in order to convey the intended message. The 'lack of competence view' is rather problematic for two reasons, at least. First of all, evidence from numerous bilingual studies strongly suggests that code-switching is a strategy employed mostly by balanced bilinguals and can, therefore, serve as an indicator of degree of bilingualism in adults and a predictor of emerging communicative competence in simultaneous bilingual children (Reyes, 2004: 78). In other words, when bilinguals switch between languages, it is not necessarily a sign that they are weaker in one of their two languages (Altarriba et al., 2008: 86).

The second reason why the limited proficiency explanation of code-switching just would not do is that it is actually used by bilingual children and adults to improve or repair conversations with other bilinguals. For example, the language in question might not have as good an equivalent to express a particular idea as the other language. To illustrate this, Altarriba et al. (2008: 86) give a Spanish word *cariño*, which has been commonly translated into English as 'like'. Nevertheless, many Spanish/English bilinguals claim that this is not a satisfactory translation. Therefore, whenever they speak to other Spanish/English bilinguals, they use the Spanish word in order to achieve deeper understanding (Altarriba et al., 2008: 86, Harding-Esch et al., 2006: 64).

Harding-Esch et al. (2006: 64) mention another fairly frequent type of code-switching, which they call *triggering*. A word which is similar in both bilingual's languages, for example a name of a person, place or food, causes the speaker to switch to the other language. To illustrate this, Harding-Esch et al. (2006: 64) take the case of Philip (4; 1) who says to his mother: *'Donne moi encore des cornflakes, please'* (Give me some cornflakes, please'). Even

though the pronunciation of 'cornflakes' is French-like, it still triggers the switch into the other language, in this case into English. Nevertheless, as Harding-Esch et al. (2006: 64) and Beardsmore (1986: 76f) agree, 'triggered' switches operate on a fairly unconscious level, as can be seen from the bilingual's quick return to the correct language, often without finishing the other-language part of her or his utterance.

Bilinguals may also code-switch in order to exclude someone from communication. However, as Harding-Esch et al. (2006: 65) point out, it would be wrong to assume that there are negative intentions behind such linguistic behavior, as is shown in the example below:

> (16)   Emily (17; 5) is eating dinner with her German friend Anne and her family (the common language is French).
>
> Mother (to Anne): *Tu reprendras un peu de ça?* ('Would you like some more?')
> Emily (to her mother in Swedish): Jeg tror inte att hon tycker om det. (I don't think she likes it.')   (cf. Harding-Esch et al., 2006: 65)

In the example (16), Emily was most probably trying to prevent possible embarrassment of her German friend, rather than to talk behind her back (Harding-Esch et al., 2006: 65).

3.4 Summary

To summarize this chapter, we can say that the language development in simultaneous bilingual children is not different from that in monolingual children, but naturally bilinguals display specific linguistic behaviors (e.g. code-switching or language mixing), which can hardly be displayed in monolinguals, and follow specific developmental schedules than monolinguals do. Such differences in language acquisition should, by no means, worry parents or caregivers. A considerable amount of research in the field shows that, if they receive sufficient input in the language(s) in question, simultaneous bilingual children eventually catch up on their monolingual peers, as far as both morphosyntax and vocabulary is concerned. This is an important finding that leads me to conclude that both monolingual and bilingual children can attain the same competence in their language(s).

In this chapter I have looked into the distinction between monolingual vs. bilingual language acquisition. Special emphasis was placed on language development in simultaneous bilingual children. The following chapter addresses the ways in which early bilingualism can benefit cognitive development.

4. The consequences of bilingualism for cognitive development

Since the early 1960s, it has been argued that simultaneous acquisition of two languages benefits children in a variety of ways. Thus, for example, Bialystok (1988: 561) and Nicoladis (2008: 173) maintain that bilinguals show an advantage over monolinguals in separating the symbols from their referents and ideas from their means of expression. Other researchers who work with bilinguals have reported that bilingual children are more advanced than their monolingual peers in creativity and/or cognitive flexibility (Lambert, 1977: 16). As Nicoladis (2008: 173) points out, it used to be common for studies evaluating the relations between bilingualism and cognitive development (e.g. intelligence or creativity) to be based on results from standardized intelligence tests. However, more recent studies focus on investigating the effects bilingual language development in more specific areas. In this chapter, I focus on two areas: metalinguistic awareness and communicative competence (Nicoladis, 2008: 173, Ianco-Worrall, 1972: 1390).

4.1 Metalinguistic awareness

Studies investigating the consequences of bilingual language acquisition for cognitive development have traditionally reported inconsistent results. Most of the early research concluded that bilingual development has disastrous consequences for the academic achievement as well as for the social and cognitive development of the child. However, these early studies received a considerable amount of criticism because they did not take into account important variables, such as the socio-economic status or the degree of language proficiency of the bilingual children studied. Later studies have documented a more positive outcome as for the intellectual development of simultaneous bilingual children (for further information see 1. 3) (Hamers et al., 1993: 48, Bialystok, 1988: 560, Ben-Zeev, 1977: 29).

As can be seen from the studies of the relation between bilingualism and intelligence, proper selection of bilingual participants is necessary in order for the researchers to obtain valid data. According to Bialystok (1988: 560), in studying the relation between bilingualism and metalinguistic awareness, the bilingual participants need to be selected with regard to two factors in particular. The first factor is *level of bilingualism,* where the level of bilingual linguistic proficiency determines the impact of bilingualism on cognition. The second factor is

degree of linguistic awareness, which is defined by Bialystok (1988: 561) as "part of the processing requirements for metalinguistic (and other language) tasks […]".

Let me now examine in more detail these two factors.

As for the *level of bilingualism*, it is a crucial element of a theory about the influence of bilingualism on cognition first proposed by Cummins in 1976. This theory has been commonly referred to as the *Threshold hypothesis*. It is based on the assumption that the positive effects of bilingualism on cognition are not obvious before the bilingual child has attained the upper threshold level in the bilingual development (in either language). At this level, the child is a "balanced bilingual" and experiences what Bialystok (1988: 560) calls "acceleration in cognition". The upper threshold level is preceded by the lower threshold level which provides the bilingual speaker with necessary linguistic competence to avoid possible negative cognitive effects. Between the upper and the lower threshold level, the child is a "non-balanced bilingual". This means that one of the child's two languages is more developed and dominates over the other (Jørgensen et al., 2007: 155, Bialystok, 1988: 560).

However, the threshold hypothesis has been criticized on the grounds that it does not explain why some children never attain the lower threshold and consequently do not show any cognitive advantages, while others reach the upper threshold and experience cognitive growth (Hamers et al., 1993: 55). Nonetheless, Cummins's hypothesis is useful in so far as it stresses the degree of balance between a bilingual's two languages as a strong predictor of the positive effects bilingualism will have on the child's cognitive growth. Thus, if cognitive advantages are experienced by a non-balanced bilingual child, it can be assumed that her or his linguistic competence is at least above the lower (minimal) threshold level in both languages (Bialystok, 1988: 560).

As far as the *degree of linguistic awareness* is concerned, it can be identified and assessed on the basis of differences in the processing of various metalinguistic tasks, which require the bilingual to attend to different language forms, make comments about language, think about language and be aware of her or his ability to modify language in general. Bialystok (1988: 561) claims that, in order for the metalinguistic (and other) tasks (e.g. conversational tasks, literacy tasks of reading and/or writing) to be processed, two skill components are required. These are the *analysis of linguistic knowledge (analyzed knowledge)* and the *control of linguistic processing (cognitive conrol)* (cf. Bialystok, 1988: 561, Hamers et al., 1993: 68).

As Hamers et al. (1993: 68) emphasize, a child's linguistic and cognitive development is characterized by gradual progress from unanalyzed knowledge and limited control over linguistic processing to more analyzed knowledge and greater cognitive control exercised over her or his attention as well as the selection and integration of information. Obviously, different types of tasks demand different degree of analyzed knowledge and cognitive control. Simple conversational tasks, for instance, can be supported by implicit, rather little-analyzed knowledge and a low degree of control of linguistic processing, while metalinguistic and literacy tasks are more demanding in terms of both the need for analyzed knowledge and the level of cognitive control (Bialystok, 1988: 561, Hamers et al., 1993: 68).

To illustrate the gradual development of the ability to analyze linguistic knowledge, we can take the case of young children, who produce grammatically correct utterances without having any explicit knowledge of specific grammatical rules. Once they start writing, however, the knowledge of the same rules will gradually become explicit. The control of linguistic processing is a crucial skill component in learning how to read. Moreover, cognitive control is much needed in solving metalinguistic tasks which usually demand separation of meanings from their forms (Bialystok, 1988: 561, Hamers et al., 1993: 68).

Ben-Zeev's (1972) study of Hebrew/English balanced bilingual and monolingual children from middle-class families shows that bilinguals perform better on word substitution tasks that demand a violation of selectional restrictions. In order to solve the following task, a high degree of cognitive control and analyzed knowledge is required from children in order to ignore the usual use of the noun *spaghetti* and to suppress the concord governing rules (Ben-Zeev, 1977: 34):

> (17)   For this game the way we say *they* is to say *spaghetti.*
> How do we say: *They* are good children?
> (Correct answer: <u>*Spaghetti*</u> are good children.)
> What do we mean when we say *spaghetti*?
> (Correct answer: *They.*)   (cf. Ben-Zeev, 1977: 34)

Another task used by Ben-Zeev (1972) to assess the children's ability to analyze language is even more difficult than the task in the preceding example. The task (18) requires the children to ignore the rules for strict subcategorization. In other words, the children are asked to substitute one part of speech for another, even though this replacement results in ill-formed constructions. (Ben-Zeev, 1977: 34):

(18)   For this game the way we say *in* or *into* is to say the word *clean* … See this doll? See this
        house? Tell me where the doll is going (experimenter pushes doll inside of house).
        (Correct answer: *The doll is going <u>clean the house</u>.*)
        Does the dollhouse get cleaner, dirtier, or does it stay the same when the doll does that?
        (Correct answer: *It stays the same.*)   (cf. Ben-Zeev, 1977: 34)

Both Ben-Zeev (1972) and Bialystok (1988), who compared metalinguistic skills of French/English balanced and partially bilingual children of middle-class background and monolingual children of the same socioeconomic background, report significantly better performance by bilinguals and a positive effect of bilingualism on cognition. In order to assess the children's awareness of the abstract nature of the word, Bialystok (1988) administered a *concept of the word* task to all three groups of children. This task consists of two parts. The first part is *judge,* in which the participants were administered a list of 10 concrete words and phrases. The children were then asked whether each of them is a word and justify her or his answer. The other part is *define*, in which children are asked following questions: "What is a word?" "How can you tell if something is a word?" Children are then assessed with respect to the formality of their response (cf. Bialystok, 1988: 562).

The *concept of the word* task reveals that balanced bilingual children outperform partial bilinguals and monolinguals in both parts of the task, with the superiority of balanced bilinguals being most obvious in the *word-definition* problem. Balanced bilingual children provided the most sophisticated answers, showing more advanced levels of analyzed knowledge than their monolingual and partially bilingual peers. Bialystok (1988: 564) gives the following examples of definitions produced by the three groups of children:

(19)   Balanced bilingual children:
        "Words are combinations of letters that mean something."
        "A sound that always means the same thing."
        "The names for something that you could read, write, or say."

        Partially bilingual children:
        "A word is something you can say."
        "*Chair* is a word because you can sit on it."

        Monolingual children:
        "Don't know."   (cf. Bialystok, 1988: 564)

As far as the two latter groups, Bialystok (1988: 564) has found that they performed similar to balanced bilinguals on the *judge* problem but had difficulties coping with the *define* part of the task as is shown in (19). Bialystok (1988: 564) and Hamers (1993: 68) agree that this outcome might be related to the gradual development of the analyzed knowledge on which the groups had to rely in solving the *concept of the word* task. In the process of language development, children are typically able to discriminate between the units of language at

around 4 years of age. Nevertheless, it should be understood that speaking about the properties of those units increases the need for explicit knowledge of language and metalinguistic knowledge. The monolingual children appear not to have developed their analyzed knowledge to such extent yet. The partial bilinguals do display some explicit knowledge, but have not provided answers as formal as the balanced bilinguals (Hamers, 1993: 68, Bialystok, 1988: 564).

To summarize, the two bilingual studies outlined in this section have provided valuable evidence for the positive impact of bilingualism on the development of metalinguistic awareness. However, the positive cognitive effects are only confined to those bilingual children who have attained certain degree of balance between their languages (Bialystok, 1988: 561, 567, Ben-Zeev, 1977: 38).

4.2 Communicative competence

Before discussing the influence of bilingualism on the communication skills of simultaneous bilingual children, let me briefly define 'communicative competence'. Nicoladis (2008: 173) and Comeau et al. (2001: 231) point out that communicative competence is a set of skills acquired by both monolingual and bilingual children that enables them to participate in communication. They learn how to choose different styles to fit particular contexts and how to communicate as effectively as possible. In addition to these general communication skills, bilingual children, who interact with both monolingual and bilingual speakers, have to learn how to make appropriate choices about which language to use in a particular pragmatic context. The point I am trying to make here is that appropriateness varies across languages and bilinguals have to learn the differences. Consequently, bilingual children might develop higher degree of sensitivity to the communicative needs of their interlocutors than monolingual children (Comeau et al., 2001: 231, Kroll et al., 2004: 339, Nicoladis, 2008: 173).

To explore the relationship between bilingualism and advances in communicative competence, Genesee and Comeau (1995) researched 2 years old French/English bilingual children and their parents. The five families under study used the 'one person, one language' strategy, which means that each of the parents spoke his or her native language to the child. Even though some language mixing took place during the interaction of parents with their children, Genesee et al. have reported that "the children used their languages differentially and appropriately with their parents" (cf. Comeau et al., 2001: 233). These findings show that

already at the age of 2, simultaneous bilingual children are capable of distinguishing between different pragmatic contexts (Comeau et al., 2001: 233, Harding-Esch et al., 2006: 52).

Nicoladis (2008: 174) points to another study by Genesee (2003), in which he investigates bilingual communicative competence in French/English bilingual 2-year-olds in Montreal. Genesee and his colleagues paid several visits to bilingual children to observe them when interacting with unfamiliar speakers. Again, the children's use of language resonated with that of their conversational partner. If the rate of language mixing was high in the interlocutor's speech, it was also high in the speech of the bilingual child, and vice-versa for the low rate of language mixing. The research reveals bilingual children's ability to make 'on-line adjustments' of their language choice to meet the communicative needs of both familiar and unfamiliar interlocutors (Nicoladis, 2008: 174, Comeau et al., 2001: 233).

Like balanced bilingual children, who are able to adjust their language, depending on the interlocutor's linguistic proficiency, monolingual children have also shown sensitivity towards the linguistic skills of their conversational partners. Comeau et al. (2001: 234) refers to the research conducted by Gelman and Shatz (1977) that reveals that monolingual 4-year-olds take into consideration the limited linguistic ability of younger children – they speak in a simpler way, using shorter sentences, slow articulation and attention-getting devices more frequently when interacting with 2-year-olds than when interacting with their age-mates or adults (Comeau et al., 2001: 234).

The two bilingual and one monolingual study reviewed clearly show that both monolingual and bilingual children have a good grasp of their communicative skills well before they develop their language(s) fully (Comeau et al., 2001: 237). But how can we determine the extent to which both groups of children are sensitive towards the linguistic knowledge of their conversational partners? Nicoladis (2008: 174) claims that one way of assessing children's communicative competence is to test how they cope with languages they do not understand. Together with her colleagues, Nicoladis (2005) tested French/English bilingual and English monolingual children to see whether or not they realize that they are not able to understand the meaning of what the Chinese interlocutor says. The major assumption behind this study was that bilingual children might show more sensitivity than their monolingual age mates towards their conversational partner's knowledge when he or she speaks a language that the children do not know (cf. Nicoladis, 2008: 174).

Nicoladis et al. (2005) based their study on the result of another research that suggests that when children come across a new word, they typically assume that it denotes concepts or objects they have not encountered before. Both monolingual and English/French bilingual 2 and 3-year-olds were asked to indicate whether a word uttered by an interlocutor who only used Chinese denoted a familiar or unfamiliar object or concept. The children were expected to choose randomly between known and unknown objects if they understood that the new word could stand for an object for which they already have a word in their mother tongue (English, French, or both). As Nicoladis et al. (2005) have reported this was exactly what bilingual children did. Monolingual children, on the other hand, were more likely to choose objects unknown to them. These results serve as an evidence that monolingual children treat the foreign words in the same manner as the novel words in their mother tongue, while bilingual children are more willing to respond to their conversational partner's feedback, allowing for the possibility that they already have a name for the foreign word in their own language(s) (cf. Nicoladis, 2008: 174, Comeau et al., 2001: 232).

As noted earlier, communicative competence does not only refer to responsivity to the specific linguistic needs of one's conversational partner but also to the effectiveness and smoothness of communication. However, it is often the case that a breakdown occurs during language negotiation. This happens to all children and even adults for a variety of reasons (e.g. speaking in a low voice, inaccurate pronunciation). Communication breakdowns caused by these factors typically trigger feedback from the interlocutor that seeks to repair the communication process as quickly as possible. Such feedback is seldom clear or explicit, which means that children often have to deduce what caused the breakdown in communication in order to choose relevant repair strategy. Unlike monolingual children, who typically experience breakdowns caused by factors similar to those mentioned above, bilingual children also encounter breakdowns caused by language choice or language mismatch. Therefore, it is of utmost importance for bilingual children to distinguish between such breakdowns and breakdowns caused by other factors (Comeau et al., 2001: 232ff, Bhatia et al., 2004: 340).

The ability of young bilingual children to repair breakdowns in dyadic communication has been the object of study by Comeau and Genesee (2001). This research was run with 3 years old French/English simultaneous bilingual children, who were visited in their homes on two occasions. During the first visit, a bilingual research assistant administered the receptive vocabulary tests to the children in order to assess their proficiency in both languages. During

the second visit, children played freely with an unfamiliar bilingual researcher, while being video-recorded for about one hour by his colleague. Comeau et al. (2001) chose the language, in which the child was least proficient (henceforth LB), to be the language of interaction in order to increase the chance for communication breakdown (Comeau et al., 2001: 240f).

The bilingual researchers who interacted with the children pretended not to understand when the child spoke her or his dominant language (henceforth LA), nor did they speak that language to anybody if the child was present in the room. Each time the child picked the LA, the researcher attempted to initiate the process of repair (Comeau et al., 2001: 241, Bhatia et al., 2004: 340):

> (20) a) *What?* (Non-specific feedback - no indication is provided that language mismatch caused the breakdown.)
> b) *I don't understand* (This non-specific feedback indicates that the child's first attempt to repair the breakdown was not successful, but no clue is provided as to the cause of the breakdown).
> c) *Can you tell me that so I can understand?* (Some reformulating of the original utterance is required.)
> d) *I don't speak French.* (The reason for communication breakdown is provided.)
> e) *Can you tell me that in English?* (The researcher states in an explicit way how to fix the breakdown in communication.)
> (adapted from Comeau et al., 2001: 241f and Bhatia et al., 2004: 340)

The questions were asked in the same order as is illustrated in (20) until the child either (a) fixed the breakdown, (b) shifted the topic of conversation, or (c) did something else that made it impossible to continue the process of repair (e.g. get noticeably irritated by the researcher's questions etc.). The children's repairs of breakdowns caused by language mismatch were then compared to repairs of breakdowns caused by other factors in order to see whether the child is able to deduce the intent of the researcher's attempts to fix the communication breakdown. Some of the breakdowns that were caused by other factors than language mismatch occurred naturally, others were reinforced by the researcher if the situation allowed it (e.g. if the child's pronunciation was inaccurate etc.). A similar set of clarification requests was then made as for the language-based breakdowns (Comeau et al., 2001: 243):

> (21) a) *What?*
> b) *I don't understand.*
> c) *Can you tell me that so I can understand?*
> d) *I can't hear you.*
> e) *Can you speak more loudly?* (c.f. Comeau et al., 2001: 243)

The study by Comeau and Genesee (2001) reveals that 3-year-old simultaneous bilingual children experience many communication breakdowns, but appear to be able to fix them with varying degree of precision using the appropriate language in ¼ of all instances. Moreover, it

is worth mentioning that almost all of those correct repairs were triggered by a non-specific feedback (see (a) and (b) in (20) and (21)). Thus, it is not the precision of the repair that matters as much as the fact that the children are actually able to identify the language mismatch as the cause of the breakdown without any particular difficulties. In fact, bilingual children often provide a translation or reformulation if the breakdown is due to the language mismatch but they almost never switch into the other language when trying to fix other types of communication breakdowns (cf. Comeau et al., 2001: 253).

In summary of this section, the investigation of simultaneous bilingual children has provided evidence for the same communicative competence on the part of both bilinguals and monolinguals, with the former showing additional skills that are specific to bilingual discourse, including the higher degree of sensitivity towards the linguistic needs of their interlocutors and the ability to deduce the cause of a communication breakdown even from non-specific feedback.

4.3 Summary

In this chapter I explored the relation between bilingualism and cognition. In particular, I was interested in the effect of bilingual language development on metalinguistic awareness and communicative competence. In Section 4.1, I gave examples of two studies exploring metalinguistic skills in balanced bilingual and monolingual children. As these studies indicate, there are many benefits to early bilingual language development. Bilingual children are more advanced than monolingual children in their ability to selectively attend to different forms of language, make comments about language and/or modify their language. However, according to the *Threshold hypothesis* bilingual children will only show these advantages if they have passed the upper threshold in their bilingual language development. In Section 4.2, I explored the relationship between bilingualism and communicative competence. My review revealed that bilingual children acquire the same communication skills as their monolingual peers in addition to the skills that are necessary for communication with other bilinguals. For example, bilingual children have shown the ability to make correct language choices when interacting with monolinguals and bilinguals. Moreover, we have seen that bilingual speakers are able to repair communication breakdowns by correctly determining whether the breakdown was caused by language mismatch or other factors such as inaccurate pronunciation (cf. Comeau et al., 2001: 231f, Jørgensen et al., 2007: 155, Bialystok, 1988: 561, Hamers et al., 1993: 68).

II. EMPIRICAL PART

1. Introduction

Linguists and educators have studied the relationship between childhood bilingualism and cognitive advancement for almost one hundred years. The research has typically focused on language differentiation in bilingual individuals and on the impact of bilingualism on linguistic and intellectual abilities. As Hakuta et al. (2000: 141) and Milroy et al. (1995: 2f) agree, both these issues grew out of the assumption that the monolingual speaker represents the cognitive-linguistic norm or unmarked case. This monolingual tradition has given rise to the fears concerning the outcome of bilingual language development, namely that bilingualism causes the linguistic, intellectual, emotional and social damage to the child, as discussed in chapter 1.2 (cf. Hakuta et al., 2000: 141, Hakuta et al., 1985: 320f).

Recent studies, however, have not replicated the findings about the negative effects of bilingual language acquisition. On the contrary, a considerable amount of research on balanced bilinguals has shown that early bilingualism benefits the children in a variety of ways, especially if the literacy skills are developed in both languages (cf. Chapters 2.3 and 4). Moreover, the way in which bilingualism is viewed by the society also determines whether the bilingual experience will enhance the child's cognitive development (see Chapter 2). Recall that in Chapter 4, I specifically focused on the positive outcomes of early bilingual language development in two specific areas: metalinguistic awareness and communicative competence (see also Hakuta et al., 2000: 141, Cummins, 2001).

To date, most studies on bilinguals have compared bilingual cognitive-linguistic performance to monolingual performance and this study is no exception. I compare the cognitive-linguistic performance of balanced Norwegian/English bilingual children, Norwegian/English non-balanced children, and Norwegian monolingual children. I have chosen this design because I consider the three populations perfectly comparable for two reasons, at least. First, all participants in my study have had both Norwegian and English as a compulsory subject since they entered school at the age of five or six. Second, I have chosen the participants with the help of their teachers, thereby minimizing the differences between them, such as the level of school performance or socioeconomic status, for example (cf. Altarriba et al., 2008:, Hakuta et al.,2000: 141 for discussion).

Moreover, it should also be mentioned that I am aware of the major difference between bilinguals and monolinguals that cannot be minimized: bilingual children experience the reality of everyday life through two languages. As Hakuta et al. (2000: 142) point out, this is most obvious in two types of linguistic behaviour performed by bilinguals: 'code-switching', as discussed in chapter 3.3, and 'natural translation'. While the empirical literature on code-switching is extensive, there are few empirical studies that investigate natural translation as a linguistic skill. Yet, Malakoff (1992: 517) and Harding-Esch et al. (2006: 67) argue that translating is something that all children throughout the world can do from the time they achieve certain level of proficiency in more than one language. However, only bilingual children can translate spontaneously at an early age, and they do that without having received any formal instruction in translation. Natural translation thus seems to be an innate skill concomitant to bilingual language development (cf. Hakuta et al., 2000: 142ff, Malakoff, 1992: 517, Harding-Esch et al., 2006: 67 for discussion).

As noted earlier, it is the aim of this study to evaluate the cognitive-linguistic performance of Norwegian/English bilingual children and Norwegian monolingual children. Even though some attention is paid to such variables as the age, at which the children started to acquire their languages or the context of language development, the major focus in this study is on the outcomes and, most importantly, on the benefits of the entire acquisition process in two areas: metalinguistic awareness and communicative competence (cf. Chapter 4). As the above discussion suggests, translation seems to be both a natural outcome and a benefit of the bilingual language development. As Harding-Esch et al. (2006: 67) and Hakuta et al. (2000: 144) point out, many minority-language children have to routinely interpret for their parents. Malakoff (1992) has documented that these children show low error rates and a high degree of sensitiveness to the communicative needs of their interlocutors. It would be wrong to assume, however, that translation skills are limited to bilingual children. It has been a common method in L2 teaching since Roman times, which means that not only balanced bilingual but also monolingual children gain this linguistic skill early in life. It is for these reasons that I have chosen translation as a means of testing the cognitive-linguistic abilities of the participants in this study (Malakoff, 1992: 517, Presas, 2000: 21, Romaine, 1995: 115, Nicoladis, 2008: 173).

In the following, I discuss translation in connection to the metalinguistic awareness and communicative competence.

2. Natural translation and metalinguistic awareness

According to Hakuta et al. (2000: 148), bilingual language competence and metalinguistic awareness are linguistic skills that are likely to be correlated, especially in the case of primary and lower secondary school children. This correlation is a direct consequence of the impact of literacy experience on both bilingual language competence and metalinguistic awareness: L1 and L2 are an essential part of all primary and lower secondary school curricula. Research shows that children who continue to develop their linguistic competence in both languages at school gain a higher degree of metalinguistic awareness and also a deeper understanding of language than monolingual children of the same age (Hakuta et al., 2000: 148, Cummins, 2001).

Hakuta et al. (2000: 148) suggest that proficiency in translation might be described as "the product of an interplay between metalinguistic maturity and (bilingual) language proficiency." The translation proficiency would eventually be enhanced by learned translation strategies but only to a limited extent. Hakuta et al. (2000: 149) give an example of a simple translation strategy: "Always start by reversing the order of the adjective and noun, when translating from English to Spanish." However, since adjectives in Spanish can also occur pronominally, this strategy would result in an ill-formed Spanish construction unless accompanied by sensitivity to specific semantic differences of the English syntax (bilingual proficiency), and a control over the resulting Spanish word order and meaning (metalinguistic skill). This example shows that translation strategy can improve performance, but not beyond a limit determined by the two linguistic skills of (bilingual) language proficiency and metalinguistic awareness (Hakuta et al., 2000: 145, 149).

It is rarely the case that word-by-word or phrase-by-phrase translation is possible from one language to another. Even in languages as similar as Norwegian and Swedish, or Czech and Slovakian, there are subtle differences in structure, colloquial and idiomatic expressions etc. Therefore, some lexical and syntactic restructuring is always necessary in translating from the source-language to the target-language. Moreover, the translator must not ignore the communicative function of an utterance. The ability to convey the meaning embedded in the source-language sentence structure to another person requires more than a good understanding of language. It is this communicative aspect of translation that makes it a "metalinguistic skill, *par excellence*" (cf. Hakuta et al., 2000: 150, Presas, : 21, Hakuta et al., 2000: 145, 149f, Harding-Esch et al., 2006: 66).

On the basis of the assumption that natural translation is "a composite of metalinguistic and communicative skill" (Hakuta et al., 2000: 150), I propose the two following hypotheses. First, balanced bilingual children perform better than non-balanced bilingual and monolingual children on capturing and communicating the meaning of the source-language text. Second, balanced bilinguals are superior in conveying this meaning in an appropriate target-language sentence structure. Having extensive experience of two linguistic systems, bilingual children create weaker connections between forms and meanings and, moreover, develop a better ability to selectively attend to specific linguistic features (i.e. the meaning, the syntax etc.), which results in a coherent translation with fewer literal translation errors (cf. Bialystok, 1988: 561f, Nicoladis, 2008: 173, Hakuta et al., 2000: 149f).

I am now going to move on to test the above hypotheses.

3. Method

The method of this study includes the analysis of data that have been gained from questionnaires and individually administered translation tasks. For reasons of respect to personal data, names of all the participants in this study have been changed.

3.1. Participants

A total of 16 children[8] aged 9-16 (mean = 12 ¼ years) participated in the study. The sample included 6 monolingual Norwegian children, 4 non-balanced Norwegian/English bilingual children and 6 balanced Norwegian/English bilingual children. Most participants in the study were recruited by means of letters and e-mails posted to the principals and/or English teachers at primary and lower secondary schools in the Kristiansand area. For an overview over the sex distribution in the study, see the Table 1(Hoff et al., 2006: 33):

Table 1: The overview over the participants in the study

	girls	boys	sum total
Monolinguals	2	4	6
balanced bilinguals	5	1	6
non-balanced bilinguals	1	3	4
	8	8	16

The balanced bilingual children (G1) had one Norwegian parent and one parent who was of either British or American origin and they were all educated in Norwegian schools. While Norwegian was the language of the playground, both English and Norwegian were spoken in the home.

The non-balanced bilingual children (G2) had one Norwegian and one British or American parent, with the exception of one boy, whose parents were of Indian origin. Two out of four non-balanced bilingual children were enrolled in the English immersion programme[9] and therefore received their education in English for most of the time[10]. English was also the primary means of communication among the children during the school breaks or in the lunch

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[8] The original research sample constituted of 20 monolingual and bilingual children, out of which only 16 agreed to take part in the project.

[9] Language immersion is a way of teaching an L2 in which the second language serves as a major medium of instruction. This means that all subjects, including science, history, music etc. are taught in an L2.

[10] The Norwegian language classes represent the only exception.

time. Their use of Norwegian was, therefore, largely restricted to the interaction with their Norwegian mothers or fathers at home. The other two non-balanced bilingual subjects were attending a Norwegian school and were taught primarily in Norwegian. Their exposure to English was through the English classes at school and the daily phone calls to their American father, who at the time of interview lived in the U.S. (Bialystok, 1988: 562).

The main feature of both G1 and G2 was the high degree of support for bilingualism in all the families. All parents reported a substantial amount of means of support available in their homes to foster bilingualism (e.g. books, movies, newspapers etc.).

The type of bilingual experience and language competence of all bilingual children was assessed by administering the simplified version of the standardized *Language and Experience Proficiency Questionnaire* (henceforth LEAP-Q), on the basis of which the bilingual sample was divided into G1 (non-balanced bilinguals) and G2 (balanced bilinguals) . The standardized English version of the LEAP-Q has been translated into Norwegian for two reasons. First, Norwegian is the majority language and the language of instruction in most schools in Norway. Second, all Norwegian/English bilingual children who participated in my study spent a substantial part of their lives in Norway and had one Norwegian-speaking parent. In addition, I administered the *Language Background Questionnaire* to the parents in order to get a more detailed picture about the language history, language proficiency, and patterns of language use of the participants in my study (Hakuta et al., 2000: 153).

3.1.1 Participant selection process

The criteria governing the selection of balanced and non-balanced bilingual participants (henceforth G1 and G2) were:

1. the children's both languages have been acquired simultaneously from the birth onwards or before the age of 3 years

2. the children have mastered the basic literacy skills of reading and writing in both their languages to be able to fill in the LEAP-Q (Altarriba, 2008: 29)

The criteria governing the selection of monolingual participants (henceforth G3) were the following:

1. the children must have grown up in a monolingual environment

2. they must not have been enrolled in any other than Norwegian school system

3. they only started acquiring English after they entered school at the age of five or six

3.1.2   Description of participants[11]

3.1.2.1 George

George is 15 years old, has an older sister, and is currently studying in an English immersion programme. George's parents are a Norwegian/English couple living in Norway where they moved five years ago. Before that, the whole family lived in the UK.

Both parents are very supportive towards bilingualism and are happy to see their son growing up speaking both English and Norwegian. However, they admit that George has not yet mastered Norwegian to the same extent as English. Occasionally, he produces mixed utterances and sometimes forgets to address his parents in the 'correct' language. The parents found it rather difficult to say under which circumstances this happens, but agreed that there has been more mixing 'since coming to live in Norway'. 'Mostly because of father's poor Norwegian', the parents continue to converse in English, but the mother seems to be aware of her role as the 'source of Norwegian' in the family and she tries to speak Norwegian with her children as much as possible when the father is not around. To get a better idea over the family's pattern of language choice, see (1):

(1)
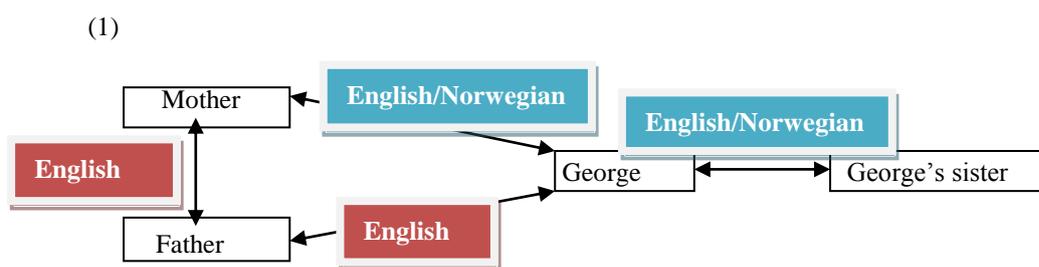
Although he spent most of his life in the UK, George identifies with the Norwegian culture and, in his opinion, is equally competent in English and Norwegian. Nevertheless, he still prefers English to Norwegian when reading, surfing on the internet or chatting with his class

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[11] In describing the participants in my study, I took the case studies carried out by and published in Harding-Esch et al. (2006) as a point of departure.

mates. As I see it, there are at least two reasons why George chooses to read or speak English in his free time. First, he began acquiring the basic literacy skills of reading and writing in English while in the UK, where he lived up to the age of ten. He only started learning to read Norwegian on his arrival to Norway. Second, George's parents reported that he has dyslexia. Thus, it might be the case that reading Norwegian texts costs him more effort than reading in English. The fact that he has dyslexia might also account for his shy and reserved behaviour during in the course of the interview and subsequent testing.

3.1.2.2 Anil

Anil (aged 12) is a son of an Indian couple living in Norway. It had been quite obvious to the parents from the beginning that they would bring up their son bilingually. As none of them could speak Norwegian on their arrival to Norway, they addressed Anil in English or Hindi at first. However, as the parents were keen on learning Norwegian as quickly as possible, they began to use it when addressing their son very early in the second year of his life. Gradually, a shift in dominance occurred as Norwegian and English were spoken more and more often than Hindi. Therefore, the linguistic pattern in this family is:

(2)
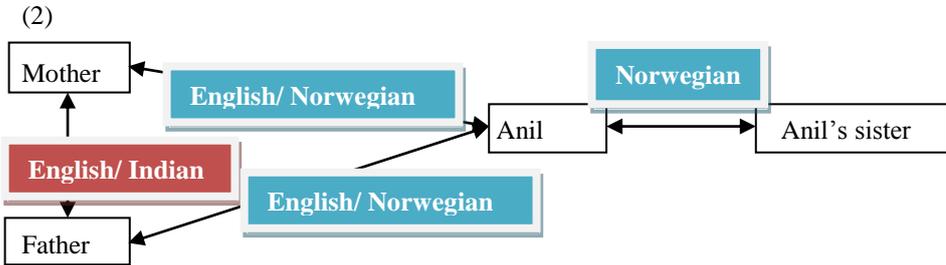
Anil switches between English and Norwegian without difficulty and he claims that these are the languages he needs and uses most. He also feels that his Hindi is not developing at the same rate as his Norwegian or English. This seems to be a direct consequence of Anil's schooling experience. At the time of the interview, he had been enrolled in an English immersion programme for three years. Before that, Anil went to primary school where he received his education exclusively in Norwegian. Nevertheless, he seems to be committed to his Indian social identity rather than the Norwegian one.

3.1.2.3 Elizabeth & Sebastian

Elizabeth (aged 12) and Sebastian (aged 9) are siblings and they attend the same Norwegian school in the suburban area in Kristiansand. They moved to Norway, the mother's country,

approximately five years ago. Both children were born in the USA, the father's country, and had been living there continuously until their departure to Norway. The father still lives in the USA but calls his children on weekly basis. The entire family reunites once a year.

The mother, who has an MA degree in English philology, has a very positive attitude towards bilingualism. Although Norwegian is the major means of communication between her and the children, she finds it completely natural to speak both English and Norwegian at home and so do Elizabeth and Sebastian. She also points to the fact that one of the languages always dominates, depending whether the children are at home in Norway or on the visit in the USA. At the moment it is Norwegian, because they use and need it most. Once in the USA, however, all the English words that they seemed to have forgotten come back very quickly. Neither Elizabeth nor Sebastian seems to produce mixed utterances, unless a word works better in one of the languages (e.g. 'cereal'). For the bilingual pattern of this family see (3):

(3)
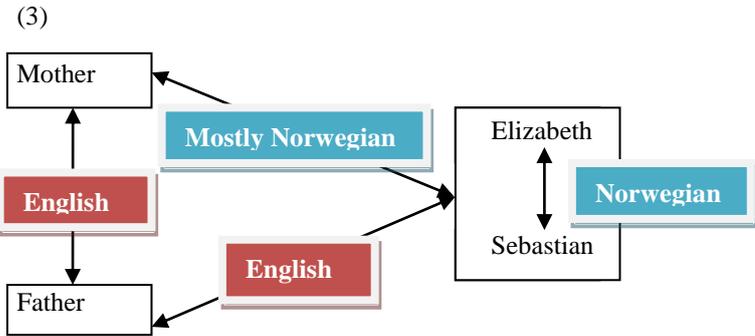
Both Elizabeth and Sebastian enjoyed talking about their bilingualism. Like many other bilingual children, they seem to have an extensive experience with two different linguistic environments. In the USA, English is their dominant language, with Norwegian following. This pattern mirrors the relative use and amount of input in each language.

Elizabeth had been enrolled in an American school for two years, which might also be one of the main reasons why she still feels more American than Norwegian. She enjoys reading both in English and Norwegian and occasionally watches BBC news on television with her mother. However, Elizabeth admits that there is some interference from Norwegian in her English pronunciation.

Unlike his sister, Sebastian has never attended an American school and prioritizes Norwegian when reading, but he likes to watch animated movies in English. Asked which culture he identifies with most, he replied: "I guess I am half American and half Norwegian."

3.1.2.4 Kristine & Thomas

Kristine (9 years) and Thomas (12 years) were born in England and have been living in Norway for five years at the time of the study. Their mother is of Norwegian origin and speaks Norwegian to her children when the English-speaking father is not around. When the family is together, they all speak English. Kristine and Thomas attend the same school in the suburban area in Kristiansand, where Norwegian is the major medium of instruction.

The parents have made a conscious decision to bring up their children bilingually and they started doing so already in the UK. From the very beginning, the mother spoke Norwegian to her children and was delighted when they chose to speak Norwegian with one another. "They decided to do that in England and it's impossible to change now", she says. The bilingual pattern of this family has remained practically the same even after they moved to Norway:

(4)

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Mother
              Norwegian/English              Kristine
                                                        Norwegian
English
                                             Thomas
              English
Father
```
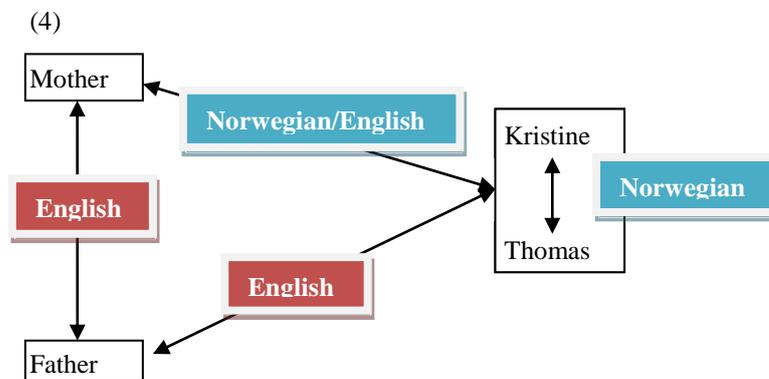
Thomas, an open and sociable boy, seems to be very popular among his class mates. Since he lives in constant contact with both English and Norwegian, he is capable of functioning equally well in both languages and can, therefore, aid his monolingual peers during the English lessons when necessary. Thomas feels equally Norwegian and British and enjoys listening to the music, reading literary texts and watching movies in either language. By now, he seems to be perfectly fluent in both languages. Thomas's English teacher admits, however, that there is some interference from Norwegian in his English spelling (e.g. double consonants after short vowels) and his mother says that very occasionally he will use Norwegian sentence structure when speaking English and he 'anglofies' Norwegian words.

Kristine has the same linguistic background as her brother and displays a very similar linguistic behaviour. Both children perform well at school and have very good communicative abilities.

3.1.2.5 Maren

Maren is 13 years old and lives together with her parents and her brother in a suburban area in Kristiansand. Maren's mother is Norwegian and tries to speak her language to the children as much as possible, especially when the English-speaking father is not around. The father, who is American, speaks English to his daughter. When the family is together, both English and Norwegian are spoken. Both parents have been encouraging and maintaining the bilingual and bicultural development of their children. There is Norwegian and American literature around, movies, magazines etc. Each year, the entire family goes to the USA for holidays. For the bilingual pattern of this family see (5):

(5)
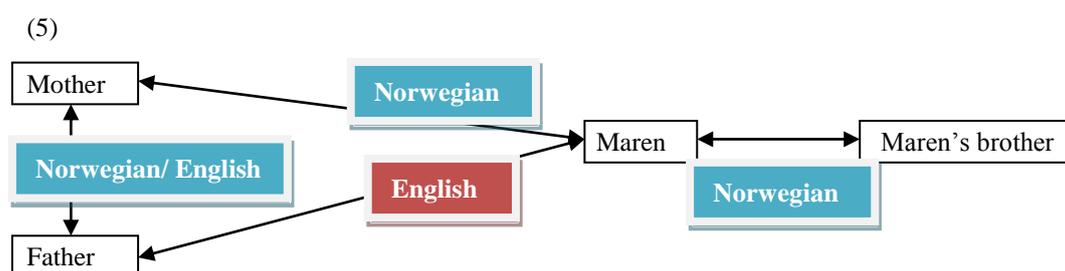
Maren was born and has been living her entire life in Norway. At the time of the interview, she went to lower secondary school and received her education (almost) exclusively on Norwegian. She considers herself equally Norwegian and American and finds it natural to read or listen to the music in either language. Moreover, she speaks both languages without difficulty and only occasionally needs help with English spelling. This is not only possible because of the effective teaching of both languages in her school but also because of the positive attitude towards bilingualism in her home.

3.1.2.6 Therese, Kathrin & Jenny

Jenny (aged 16), Therese (aged 13), and Kathrin (aged 10) are the daughters of an American/Norwegian couple. At first, the family settled in Norway, where they lived for three years and where the oldest daughter, Jenny, was born. Therese and Kathrin were born in the USA, where the family stayed for seven years with an exception of two breaks during which they lived in Norway (each lasted for about one year). They moved to Norway in 2007 and have lived there continuously since then.

Although the parents took a conscious decision to establish a bilingual home, they have always been very relaxed in their attitude about it. They have adopted the 'one person, one language strategy', which means that the Norwegian-speaking father addresses the children

on Norwegian, while the American mother speaks English to them. In family situations, everybody speaks English most of the time. For the bilingual pattern of this family, see (6):

(6)

Mother — English — Therese
English — Jenny — English → Kathrin
Norwegian
Father
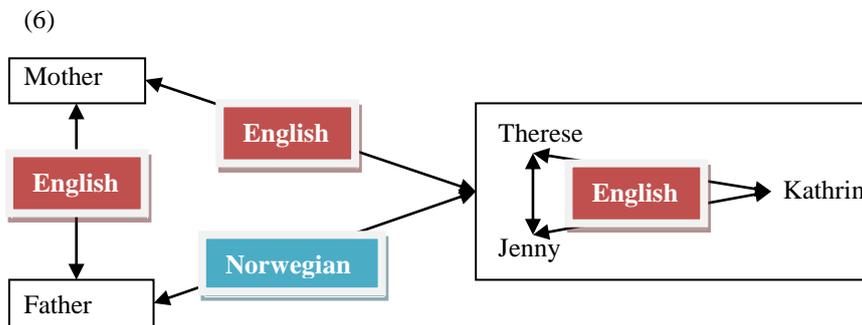
During my visit to the family, all girls were switching automatically between Norwegian and English, depending on whether they spoke to the mother or the father. It should also be mentioned that they were very sensitive to my linguistic needs. It did not take them long to realize which of the two languages I felt most comfortable with and they kept addressing me in that language.

Jenny, a lively and sociable girl, was happy to talk about her bilingual language experience and did so in perfectly fluent American English. She had been enrolled in the American school for six years whilst in the USA, which has helped her develop a high level of linguistic skills of speaking, writing, and reading in English. Once back in Norway, however, she had minimal difficulties adapting to the Norwegian linguistic environment. As her mother points out, at the early stage of her linguistic development (0-3 yrs), Jenny was more fluent in Norwegian than her sisters at the same age. At the time of the study, Jenny offered a balanced bilingual pattern, claiming that her English was only slightly better than her Norwegian. Nonetheless, she enjoys reading both American/British and Norwegian literature and does not mind watching movies in either language.

As for Therese, she identifies with both cultures, which might be a direct consequence of her schooling experience. She had been enrolled in both American and Norwegian school for approximately three years. When I interviewed her, Therese attended a Norwegian school in the Kristiansand area. She does not have any language preferences when it comes to reading, but English tends to be the language of choice when she listens to the music or watches TV.

Kathrin is the youngest of the three sisters. Even though most of her schooling (4 ½ yrs) has taken place in Norway, she still feels more American than Norwegian. Otherwise, she displays a linguistic behaviour that is very similar to that of the older sisters.

All monolingual children (Jonas, Marianne, Mari, Petter, Mathias and Trond) fulfil the criteria governing the selection of monolingual participants (see 3.1.1). The results I have obtained from this comparison group (G3) will be presented in 3.4.3.

3.2 Tasks

3.2.1 'Robinson Crusoe' translation task

This translation task involved as translation stimulus a fragment of the novel *Robinson Crusoe* by the English author Daniel Defoe. All children aged 12 years and older were asked to translate in both directions, that is, from Norwegian to English and from English to Norwegian. In the Norwegian-English translation direction, the task was conducted with the Norwegian translation of the original English text by Tor E. Dahl. The task was administered in the form of power point presentation with 1-2 sentences on 7 slides.

3.2.2 'George's marvelous medicine' translation task

This translation task involved a fragment of the novel George's marvellous medicine by the English/Norwegian author Roald Dahl. In the Norwegian-English translation direction, the task was conducted with the Norwegian translation of the original English text by Ragnar Hovland. This text was chosen to assess the linguistic-cognitive performance of children aged 9-11 years. The task was administered in the form of power point presentation with 1-2 sentences on 6 slides.

In choosing the texts for these tasks, attention was paid to the vocabulary complexity to avoid confounding knowledge of vocabulary with the translation skill. In both translation tasks, the child was instructed to read the text first and then to translate into the language in question when she or he was ready. The text remained visible on the pc screen until the subject was finished translating the particular slide. Each session was recorded on iPod and analyzed by me (Hakuta et al., 2000: 153f).

3.3 Procedure

The children were tested individually. Testing started with translating from Norwegian to English end ended with translating from English to Norwegian. The main reason why I administered the translation tasks in this order was to ensure comparability of data from all three focus groups. It would be interesting to vary the procedure with respect to language dominance of the participants in this study to see whether or not there would a positive effect on performance.

3.4 Results and discussion

In the following, I will present and discuss the results I obtained when comparing the linguistic-cognitive performance of G1, G2, and G3. Some of the results are highly interesting. First, all children appeared to be very good translators. Second, the balanced bilingual children performed better than the non-balanced bilinguals and monolinguals in both source-target directions and on all measures. Third, well developed reading skill and equally good communication abilities in both languages appeared to be essential in the translation process.

In evaluating the quality of translations, I used the following criteria as they were formulated by Hakuta et al. (2000):

1. I was interested in the frequency of *source-word intrusion errors* and the *source-word order intrusion errors.* The first error type was defined by Hakuta et al. (2000: 155) "as one where a word from the source language worked its way into the translation." In the second error type, "the word order of the source language works its way into the translation" (Hakuta et al., 2000: 155).

2. I focused on whether the children provided *literal* or *non-literal* translations. Translations were considered non-literal when the source language sentence structure was reformulated in order for the meaning to be conveyed in a more appropriate way. If the source sentence was translated sequentially, translation was defined as literal (Hakuta et al., 2000: 145, 155).

3. Finally, I divided the translations into three categories according to whether it was *correct* (the meaning was communicated in a well formed target sentence structure), *incorrect* (where an essential word or an idea was missing in the translation), or *wrong* (where there were several flaws in the translation) (Hakute et al., 2000: 155).

3.4.1 Results for G1

Table 2 Literal translations and intrusion errors in both directions

Thomas

Literal translations

[...] eller for dem som virkelig hadde hell med seg	[...] or those who really *had luck with them*
[...] or for those who really had luck with them	
[...] but to settle at home	[...] men å *sette meg ned* hjemme

Maren

Literal translations

[...] men jeg kunne ikke tenke meg noe annet enn å dra til sjøs

[...] I *could not think myself* working with anything else than going out to sea

Subjects in this group showed the highest level of translation competence, scoring higher than both G2 and G3. The subjects provided fewer literal translations and made no intrusion errors in either translation direction (see Table 2). The results bore out the hypothesis that balanced bilingual children are more advanced in capturing the source-language meaning in correct target-language syntax. G1 better resisted the temptation of focusing on the meaning of individual words. Rather, they treated the source-language sentence as a whole and tried to understand the meaning of the passage on the slide before they started translating. As a result, they provided more coherent and grammatically correct translations than G2 and G3. Although I did not take particular interest in phonology, it might also be relevant to stress the native pronunciation of the balanced bilingual sample (Hakuta et al., 2000: 145).

The extremely low proportion of literal translations and intrusion errors in translations by balanced bilingual children can be accounted for by their ability to selectively attend to specific parts of the language(s), including syntax, phonology and meaning, and high degree of sensitiveness to the differences between the two languages. Moreover, Norwegian/English balanced bilinguals in my study have been developing literacy skills in both their languages, which is a necessary step on the way towards metalinguistic maturity and bilingual proficiency (Bialystok, 1988: 561, Hakuta et al., 2000: 149).

Table 3 The percentage of *correct, incorrect* or *wrong* translations in the Norwegian-English direction

N→ E	correct (%)	incorrect (%)	wrong (%)
Thomas	80	20	0
Kristine	100	0	0
Maren	60	40	0
Therese	100	0	0
Kathrin	100	0	0
Jenny	100	0	0
mean %	**90**	**10**	**0**

Table 4 The percentage of *correct, incorrect* or *wrong* translations in the English-Norwegian direction

E→ N	correct (%)	incorrect (%)	wrong (%)
Thomas	100	0	0
Kristine	100	0	0
Maren	100	0	0
Therese	75	25	0
Kathrin	100	0	0
Jenny	100	0	0
mean %	**95, 8**	**4, 2**	**0**

As can be seen from Tables 3 and 4, balanced bilingual children have performed extremely well on communicating the major meaning embedded in the translation tasks. In the Norwegian-English direction, 10% were incorrect; in the English-Norwegian direction only 4,2% were incorrect. No translations were coded as 'wrong' in either direction.

The data have confirmed the hypothesis that balanced bilingual children would outperform non-balanced bilingual and monolingual children in capturing and conveying the meaning of the source-language text. Although G3 has scored close to G1 on communicating the major meaning in the English-Norwegian direction (see Tables 4 and 10), there was a significant difference between the two groups in the Norwegian-English direction (see Tables 3 and 9). Moreover, the between-group comparison of the translations coded as 'correct' revealed that G1 provided more accurate translations going from Norwegian to English than did both G2 and G3. For illustration, see (6):

> (6)   Jenny (G1): One morning he called me and explained to me that travelling to strange countries on adventure is either something for people who are desperate or people who are very lucky.
>
> Elizabeth (G2): One morning he called me and …eh… explained me that to travel to …eh… for an country on adventure it was something for someone who was very desperate or for them who really had luck with them.
>
> Mathias (G3): One morning he …eh… called me …eh… to come and he explained me how …eh… how it was to travel to other countries on adventure. But it was …eh… it was for those who was, who were desperate or for those who was, were lucky.[12]

The reason why the balanced bilingual children provided more efficient translations than their peers from the other two groups might be strongly related to the positive attitude of their families towards bilingualism. The parents of all balanced bilingual participants have fostered bilingualism in their children, trying to ensure a solid foundation in both English and Norwegian. This effort included telling stories, singing songs, reading books and discussing

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[12] See appendix 1 for the original texts in English and in Norwegian.

various issues with the children in both languages. This good grounding in both languages then resulted in the higher levels of metalinguistic awareness, which appeared to be essential in analyzing and lexical and syntactic restructuring the source-language text (Cummins, 2001: 17).

According to Hakuta et al. (2000: 148), "children who have a more developed sense of metalinguistic awareness are likely also to have more developed language skills in general […]". If this is true, than it might well be the case that the balance bilingual children, who are in contact with their languages both at home and in the classroom, have achieved approximately the same level of proficiency in all four language skills of listening, reading, speaking, and writing in both their languages, while their monolingual and partially bilingual peers still have only a limited access to the language skills in either Norwegian or English. Having an equally good command over the language skills of listening and reading in both languages, the balanced bilinguals can better comprehend the meaning in both source-target directions. Simply put, a good comprehension can only be achieved through good listening and reading abilities. Similarly, being proficient speakers in both English and Norwegian, the balanced bilingual children could exploit their communicative abilities in a more efficient way in both their languages than the monolingual and non-balanced bilingual children. This might serve as an explanation for G3 scoring about the same as G1 in the English-Norwegian direction but not when going from Norwegian to English.

3.4.2   Results for G2

Table 5 Literal translations and intrusion errors in both directions

George

Source-word intrusion errors

Der var noe [...] for dem som virkelig hadde hell med seg.	It was something for someone [...] who had really *hell* with themselves.
[...] to settle at home according to my father's desire.	[...] jeg satt meg ned hjemme *according til hva faren min ønsket seg*.

Literal translations

[...] og ble ikke oplært i noe yrke	[...] and was not *trained up for a job*
[...] men jeg kunne ikke tenke meg noe annet enn å dra til sjøs anything else than to go to sea	[...] I *could not think myself* to do

Der var noe [...] for dem som virkelig hadde hell med seg *hell with themselves*	It was something for someone [...] who had really
[...] but to settle at home according to my father's desire	[...] jeg *satt meg ned* hjemme

Anil

Source-word intrusion errors

I was sincerely affected with this discourse [...]	Jeg var *prepared* min beste problemet [...]

Literal translations

[...] I decided to run quite away from him	[...] *jeg løpte ganske veg fra ham*

Elizabeth

Source-word intrusion errors

[...] derfor var hodet mitt svært tidlig fylt av alskens drømmer	That's why my head quite early was filled up of *alskens* dreams

Literal translations

[...] eller for dem som virkelig hadde hell med seg	[...] or for them who really *had luck with them*
[...] og han mente å ha erfart at det i grunnen var [...]	[...] and he meant that to have experienced that *in the bottom* was [...]
[...] but to settle at home	[...] men til å *sette seg* hjemme

Seabastian

Literal translations

[...] en liten gutt ville straks begynne å tenke på hva galt han kunne gjøre [...]	A small boy want to begin now to think what wrong he can do [...]
[...] try to behave for yourself for once [...]	[...] prøv å oppfør deg selv *for en stund* [...]

The subjects in this group made very few source-word intrusion errors and no source-word order intrusion errors (see Table 5). However, they did provide the highest proportion of literal translations of the three focus groups (see Tables 2, 5 and 8). As is also possible to see from Tables 2, 5, and 8, there were some intriguing differences in the quality of translations by the partially bilingual children and the other two groups. As for the non-balanced bilinguals (G2), they were more likely to make an intrusion error or provide a literal

70

translation in either direction. All monolingual participants (G3), on the other hand, made (almost) all their mistakes when translating from Norwegian into English. This asymmetry reflects the Norwegian dominance in the monolingual sample as well as the varying degrees of bilingual competence within the non-balanced bilingual sample.

The results show that the non-balanced bilingual children do not seem to have attained the same level in the development of their linguistic proficiency in either language as the balanced bilinguals and therefore cannot enjoy the same bilingual advantages (cf. Chapter 4.1). Sebastian and Elizabeth, for instance, appear to have about the same 'insight' into the Norwegian and English language systems as the monolingual children. However, they provide an interesting example of bilingual flexibility. Once in the English-speaking environment, they can recall all English words they seemed to have forgotten while in Norway. From this we can see that language acquisition is a continuous process, which means that if non-balanced bilingual children receive sufficient amount of input in both their languages, they can eventually reach the same level of bilingual proficiency as their balanced bilingual peers and benefit from the same cognitive advantages (Bialystok, 1988: 564, Hakuta et al., 2000: 148).

Table 6 The percentage of *correct, incorrect* or *wrong* translations in the Norwegian-English direction

N→ E	correct (%)	incorrect (%)	wrong (%)
George	60	0	40
Anil	20	60	20
Elizabeth	60	40	0
Sebastian	100	0	0
mean (%)	**60**	**25**	**15**

Table 7 The percentage of *correct, incorrect* or *wrong* translations in the English-Norwegian direction

E→ N	correct (%)	incorrect (%)	wrong (%)
George	25	50	25
Anil	50	25	25
Elizabeth	75	25	0
Sebastian	100	0	0
mean (%)	**62, 5**	**25**	**12, 5**

In communicating the meaning of the source-language text, the non-balanced bilingual children scored lowest of the three focus groups. In the Norwegian-English direction, 15% were wrong and 25% incorrect; in the English-Norwegian direction 12,5% were wrong, while

25% were incorrect (see Tables 6 and 7). Even though this group performed about the same on this measure as G3 in the Norwegian-English direction, there was a considerable difference between the groups in the opposite translation direction. While G3 provided 91,6% correct translations, G2 provided 62,5% correct English-Norwegian translations (see Tables 7 and 10).

As the 'Language Background Questionnaire' reveals, one reason might be the inconsistent pattern of language usage in the families of non-balanced bilingual children. George, for example, had lived in the UK for ten years before his parents decided to move to Norway. While in the UK, English was a dominant language for George both at home and at school (see 3.1.2). This pattern has begun to change only recently, which resulted in higher proportion of language mixing in George's utterances (see Table 5). This transition period has also been characterized by an uneven level of proficiency in the four language skills of listening, reading, speaking and writing in either language (Harding-Esch et al., 2006: 103).

Since George has not been developing these skills simultaneously in English and Norwegian, he has not yet achieved the same level of metalinguistic competence as his balanced bilingual peers. As a result, he provided sequential translations with a correct syntax, but with the absence of a coherent target-language sentence structure and/or meaning. This also seems to be the case for other non-balanced bilinguals and some of the monolinguals[13] (for illustration see (7)) (see Hakuta et al., 2000: 145 for discussion):

> (7)   Kathrin (G1): That was a quite silly thing to say. Any little boy could … eh … once think about which silly things he could do.
>
> Sebastian (G2): It was a stupid, it was a really stupid thing to say. A small boy want to begin now to think what wrong he can do.
>
> Marianne (G3): That was a very stupid thing to say. An ordinary …little boy will … eh… just do something wrong if he could … not.[14]

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[13] This was especially common in the Norwegian-English translation direction.

[14] See appendix 2 for the original texts in English and in Norwegian.

3.4.3 Results for G3

Table 8 Literal translations and intrusion errors in both directions

Jonas

Source-word order intrusion errors

Lørdag morgen sa Georgs mor til Georg [...]	Saturday morning said George's mother to George [...]

Source-word intrusion errors

[...] finn ikke på noe galt mens jeg er borte.	[...] do not make any trouble *mens* I am gone.

Literal translations

[...] en liten gutt ville straks begynne å tenke på [...]	A boy should *begin to think about* [...]

Mari

Source-word order intrusion errors

[...] å reise til fremmede land på eventyr, det var noe enten for slike [...]	[...] to leave to other country on adventure *it was* either for them [...]

Source-word intrusion errors

[...] jeg burde studere juss [...]	[...] I should start studying *juss* [...]
Der var noe [...] for dem som virkelig hadde hell med seg.	[...] for them who really had *hell* with they.

Literal translations

[...] men jeg kunne ikke tenke meg noe annet enn [...]	[...] I *could not think me* something else than [...]

Mathias

Literal translations

[...] og ble ikke oplært i noe yrke	[...] and was not *learned up* to any job

Marianne

Literal translations

[...] behave yourself for once [...]	[...] kontrolere deg selv *for en stund* [...]

As Tables 2 and 8 reveal, G3 provided less sophisticated translations in the Norwegian-English translation direction than G1. However, they performed very close to balanced

bilinguals when translating from English into Norwegian. In this direction, no intrusion errors occurred and the proportion of literal translations was extremely low.

These results show that G3 has not yet developed the same linguistic competence in the English language as G1. Nevertheless, even the limited experience with English literacy helped G3 to achieve a slightly higher level of performance than G2. It would be interesting to explore the linguistic background of the monolingual subjects to see whether their parents were concerned with enhancing the linguistic abilities of their children by reading and telling stories, singing songs, etc. (Bialystok, 1988: 564).

Table 9 The percentage of *correct, incorrect* or *wrong* translations in the Norwegian-English direction[15]

N→ E	correct (%)	incorrect (%)	wrong (%)
Jonas	60	40	0
Mari	40	40	20
Mathias	100	0	0
Marianne	60	0	40
mean %	**65**	**20**	**15**

Table 10 The percentage of *correct, incorrect* or *wrong* translations in the English-Norwegian direction

E→ N	correct (%)	incorrect (%)	wrong (%)
Jonas	100	0	0
Mari	100	0	0
Trond	75	25	0
Mathias	100	0	0
Marianne	100	0	0
Petter	75	0	25
mean %	**91, 6**	**4, 2**	**4, 2**

Monolingual children managed to communicate well the original source-language meaning in both directions. In the Norwegian-English direction, 15% were wrong and 25% incorrect; in the English-Norwegian direction only 4, 2 % were wrong and 4, 2 incorrect (see Tables 9 and 10).

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[15] Because of a technical mistake that occurred in the recording process of two subjects (Trond and Petter), I did not obtain sufficient amount of data in the Norwegian-English direction. Therefore, I have decided to exclude these subjects from the comparison group.

The results reveal that the monolingual children have a better command over the language skills in their mother tongue than in English. As a result, they cannot comprehend and convey the source-language meaning equally well in both translation directions.

Conclusion

The main goal of my master thesis was to investigate and highlight the positive relation between bilingualism and cognition. This was mainly achieved in Chapter 4 and in the empirical part of my thesis.

In Chapter 1, I provided a necessary introduction to the field of bilingualism. I argued that, in studying bilingualism, it is crucial to keep in mind that it is not only linguistic factors (e.g. the degree of bilingualism) that characterize a bilingual person. In order to develop a more precise profile of a bilingual individual, we need to consider the non-linguistic factors (e.g. the socio-cultural or educational background) as well. Taking the discussion of the complexities of defining bilingualism and bilinguals as a point of departure, I turned to highlight the significance of bilingual research and its role to inform bilingual families, L2 teachers and/or educational authorities. I point out that there is more work needed to help the parents and the teachers to bring up and educate successful bilingual speakers (cf. Chapter 1) (Chin et al., 2007: 18, 39).

Chapter 2 was dedicated to the effects of the attitudes, ideologies, norms and stereotypes on the ways, in which a society responds to bilingualism and bilingual language education. The point I made was that bilingualism tends to be viewed positively by a society if the majority language-speakers (in-group) are on good terms with the speakers of a minority language variety (out-group). In order to ensure the mutual respect between the in-group and out-group, promotion of the positive attitudes towards bilingualism becomes necessary both within families and in the schools. The Dual Language (DL) programmes suffice to serve as an example of an innovative approach applied towards the minority language-speaking children in the U.S. These programmes seek to help these children to accomplish their educational goals by providing the instruction in the minority languages. Moreover, it is the goal of DL programmes to help the majority language-speaking students and their families to respond to the linguistic and cultural variety in a positive way (cf. Chapter 2).

The aim of Chapter 3 was to compare bilingual vs. monolingual language acquisition. The review in this chapter based on Barret (1999), O'Grady (2007), Uccelli (2009), Harding-Esch et al. (2006) and others reveals that language develops in the same way in monolingual and bilingual children. Both groups of children go through the same developmental stages and

eventually attain the same linguistic competence. The only difference lies in the specific linguistic behaviours (e.g. code-switching or language mixing) that are only displayed by bilinguals. However, it is important for the parents not to interpret these differences as evidence of confusion. On the contrary, code-switching is a meaningful communication strategy that is limited to bilingual discourse. As far as the language mixing, it is only a question of time before the child gets the languages sorted out. In conclusion, bilingual children acquire their two languages in a similar manner as monolingual children acquire one (cf. Chapter 3) (Harding-Esch et al., 2006: 56, 63).

I concluded the theoretical part of my thesis with Chapter 4, in which I show that bilingualism can have positive consequences for cognition. I discussed several studies focusing on the role played by bilingualism on metalinguistic awareness and communicative competence. These studies have indicated that balanced bilingual children are more advanced than their monolingual peers in their ability to modify the language, make comments about language or selectively attend to different language forms. Moreover, balanced bilingual children have a considerable command over the general communication skills and the skills that are typical of bilingual discourse, showing higher degree of sensitivity towards the communicative needs of their interlocutors (Vega, 2008: 186).

In the empirical part of my thesis, I compared the cognitive-linguistic performance of 6 balanced Norwegian/English bilingual children, 4 Norwegian/English non-balanced children, and 6 Norwegian monolingual children. The method included the analysis of data I gained from questionnaires and translation tasks. I have chosen translation to test the cognitive-linguistic abilities, because it requires a high level of linguistic proficiency in either language, but also the ability to communicate the meaning embedded in the source language sentence structure. I assessed the quality of translations according to: (1) the frequency of *source-word intrusion errors* and the *source-word order intrusion errors* (2) whether the *literal* or *non-literal* translation was provided (3) whether the translation was *correct*, *incorrect*, or *wrong,* depending on how well the children managed to communicate the intended meaning (cf. Chapter 3, Part II).

The results of my study confirmed the hypotheses that balanced bilingual children would outperform the non-balanced bilingual and monolingual children on capturing and communicating the meaning of the source-language text, and that balanced bilingual children

would be more advanced than the other two focus groups in conveying this meaning in a correct target-language sentence structure (cf. Chapter 2, Part II).

These results can be accounted for by the fact that all balanced-bilinguals in this study have been developing their literacy in both English and Norwegian. Moreover, the parents to balanced-bilingual participants have all reported that they have encouraged bilingual language development in their children, trying to ensure a solid foundation in both English and Norwegian. A systematic effort was made in these families to foster bilingualism in the children by telling stories and singing songs in both languages. Consequently, the children developed higher level of metalinguistic awareness, which was much needed in analyzing and restructuring the source-language text (cf. 3.4.1) (Harding-Esch et al., 2006: 123).

As Hakuta et al. (2000: 148) points out, a more developed sense of metalinguistic awareness goes hand in hand with more developed language skills of reading, writing, speaking, and listening. Therefore, it might be the case that the balanced bilingual children, who have attained approximately the same level of proficiency in the language skills in both their languages, could better comprehend the text in both source-target directions. Moreover, having native control over the speaking ability in both their languages, they could better communicate the meaning of the source-language text (cf. 3.4.1).

Bibliography

Altarriba, Jeanette & Jennifer L. Gianico. 2008. The psycholinguistics of bilingualism.
    In Altarriba & Heredia (eds.), 71-103.

Altarriba, Jeanette & Roberto R. Heredia (eds.). 2008. *An introduction to bilingualism: principles and processes.* London: Lawrence Erlbaum Associates.

Auer, Peter & Li Wei (eds.). 2007. *Handbook of multilingualism and multilingual communication.* Berlin: Mouton de Gruyter.

Baker, Colin. 2007. Becoming bilingual through bilingual education.
    In Auer & Wei (eds.), 131-152.

Barbour, Stephen & Cathie Carmichael (eds.). 2002. *Language and nationalism in Europe.*
    Oxford: Oxford University Press.

Barbour, Stephen. 2002. Nationalism, language, Europe.
    In Barbour & Carmichael (eds.), 1-17.

Barrett, Martyn (ed.). 1999. *The development of language.*
    Hove: Psychology Press Ltd.

Barrett, Martyn. 2004. Early lexical development.
    In Fletcher & MacWhinney (eds.), 362-392.

Beardsmore, Hugo, Baetens. 2003. Who's afraid of bilingualism?
    In Dewaele, Housen & Wei (eds.), 10-27.

Beardsmore, Hugo, Baetens. 1986. *Bilingualism: basic principles.*
    Clevedon: Multilingual Matters Ltd.

Ben-Zeev, Sandra. 1977. The influence of bilingualism on cognitive strategy and cognitive development. *Child Development* 48 (3), 1009-1018.

Ben-Zeev, Sandra. 1977. Mechanisms by which childhood bilingualism affects understanding of language and cognitive structure. In Hornby (ed.), 29-55.

Bhatia, Tej K. & William C. Ritchie (eds.). 2004. *The handbook of bilingualism.*
    Oxford: Blackwell Publishing Ltd.

Bhatia, Tej K. & William C. Ritchie. 2004. Social and psychological factors in language mixing. In Bhatia & Ritchie (eds.), 336-352.

Bialystok, Ellen. 1988. Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology* 24 (4), 560-567.

Bialystok, Ellen (ed.). 2000. *Language processing in bilingual children.* Cambridge: Cambridge University Press.

Bloomfield, Leonard. 1933. *Language.* New York: Holt.

Blumenfeld, Marian & Kaushanskaya. 2007. The Language Experience and Proficiency Questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech Language and Hearing Research, 50* (4), 940-967.

Bucken-Knapp, Gregg. 2003. *Elites, language, and the politics of identity: the Norwegian case in comparative perspective.* New York: State University of New York Press.

Burke, Peter J. (ed.). 2006. *Contemporary social psychological theories.* Stanford: Stanford University Press.

Callahan, Rebecca M. & Patricia Gándara. 2004. On nobody's agenda: improving English language learners' access to higher education. In Sadowski (ed.), 107-127.

Chin, Ng, Bee & Gillian Wigglesworth. 2007. *Bilingualism: an advanced resource book.* Oxon: Routledge.

Cenoz, Jasone & Fred Genesee (eds.). 2001. *Trends in bilingual acquisition.* Amsterdam: John Benjamins Publishing Company.

Comeau, Liane & Fred Genesee. 2001. Bilingual children's repair strategies during dyadic communication. In Cenoz & Genesee (eds.), 231-256.

Cummins, Jim. 1977. Cognitive factors associated with the attainment of intermediate levels of bilingual skills. *The Modern Language Journal* 61 (1/2), 3-12.

Cummins, Jim. 2001. Bilingual children's mother tongue: Why is it important for education? www.fiplv.org/Issues/CumminsENG.pdf (last accessed 03.05.2011).

Cummins, Jim. 2006. *Language, power and pedagogy: bilingual children in the crossfire.*
Clevedon: Multilingual Matters Ltd.

Dahl, Roald. 1994. *Georgs magiske medisin.* Trans. Ragnar Hovland.
Oslo: Bokklubens barn.

Dahl, Roald. 2001. *George's marvellous medicine*.
London: Puffin Books.

Defoe, Daniel. 1999. *Robinson Crusoe.* Trans. Thor E. Dahl.
Oslo: Gyldendal Tiden.

Defoe, Daniel. 1985. *Robinson Crusoe.*
London: Penguin Books Ltd.

Dewaele, Jean-Marc, Alex Housen & Li Wei (eds.). 2003. *Bilingualism: beyond basic principles.* Clevedon: Multilingual Matters Ltd.

Downes, William. 1998. *Language and society.*
Cambridge: Cambridge University Press.

Dromi, Esther. 1999. Early lexical development.
In Barrett (ed.), 99-11?.

Fletcher, Paul & Brian MacWhinney. 2004. *The handbook of child language.*
Oxford: Blackwell Publishing Ltd.

Freeman, Donald. 2004. Teaching in the context of English-language learners: What do we need to know? In Sadowski (ed.)., 7-20.

Garcia, Eugene E. 2008. Bilingual education in the United States.
In Altarriba & Heredia (eds.), 321-343.

Gleason, Jean, Berko & Nan Bernstein Ratner (eds.). 2009. *The development of language.*
London: Pearson Education Ltd.

Gleason, Jean, Berko. 2009. The development of language: an overview and a preview.
In Gleason & Ratner (eds.), 1-36.

Genesee, Fred. 2004. What do we know about bilingual education for majority-language students? In Bhatia & Ritchie (eds.), 547-576.

Grosjean, François. 1992. Another view of bilingualism. In Harris (ed.), 51-62.

Grosjean, François. 1998. Studying bilinguals: methodological and conceptual issues. *Language and cognition I,* 131-149.

Gubbins, Paul & Mike Holt (eds.). 2002. *Beyond boundaries: language and identity in contemporary Europe.* Clevedon: Multilingual Matters Ltd.

Hakuta, Kenji & Rafael M. Diaz. 1985. The relationship between the degree of bilingualism and cognitive ability: a critical discussion and some new longitudinal data. In Keith E.Nelson (ed.), *Children's language: volume 5*, 319-344. Hillsdale: Lawrence Erlbaum Associates.

Hakuta, Kenji & Marguerite Malakoff. 2000. Translation skill and metalinguistic awareness in bilinguals. In Bilalystok (ed.), 141-166.

Hamers, Josiane F. & Michel H. A. Blanc. 1993. *Bilinguality & Bilingualism.* Cambridge: Cambridge University Press.

Harding-Esch, Edith & Philip Riley. 2006. *The bilingual family: A handbook for parents.* Cambridge: Cambridge University Press.

Harris, Richard, Jackson. (ed.). 1992. *Cognitive processing in bilinguals.* Amsterdam: Elsevier Science Publishers B. V.

Haugen, Einar. 1969. *The Norwegian language in America*. Bloomington: Indiana University Press

Hogg, Michael A. 2006. Social identity theory. In Burke (ed.), 111-136.

Hornby, Peter A. (ed.). 1977. *Bilingualism: psychological, social, and educational implications.* London: Academic Press Ltd.

Hudson, Grover. 2008. *Essential introductory linguistics.* Oxford: Blackwell Publishing.

Ianco-Worrall, Anita D. 1972. Bilingualism and cognitive development.
    Child Development 43 (4), 1390-1400.

Joseph, John, Earl. 2004. *Language and identity: national, ethnic, religious.*
    Basingstoke: Palgrave Macmillan.

Jørgensen, Normann J. & Pia Quist. 2007. Bilingual children in monolingual schools.
    In Auer & Wei (eds.), 155-173.

Kroll, Judith F. & Paola E. Dussias. 2004. The comprehension of words and sentences in two
    languages. In Bhatia & Ritchie (eds.), 169-200.

Lanza, Elizabeth. 2004. *Language mixing in infant bilingualism: a sociolinguistic perspective.*
    Oxford: Oxford University Press.

Li, David C. S. 2007. Multilingualism and commerce.
    In Auer & Wei (eds.), 423-443.

Mackey, William, Francis. 2000. The description of bilingualism.
    In Wei (ed.), 26-55.

MacSwan, Jeff. 2004. Code switching and grammatical theory.
    In Bhatia & Ritchie (eds.), 283-311.

Meisel, Jürgen M. 2001. The simultaneous acquisition of two first languages: early
    differentiation and subsequent development of grammars.
    In Cenoz & Genesee (eds.), 11-41.

Milroy, Lesley & Pieter Muysken. 1995. *One speaker, two languages: cross-disciplinary
    perspectives on code-switching.* Cambridge: Cambridge University Press.

Myers-Scotton, Carol. 2006. *Multiple voices: an introduction to bilingualism.*
    Oxford: Blackwell Publishing.

Nicoladis, Elena. 2008. Bilingualism and language cognitive development.
    In Altarriba & Heredia (eds.), 167-181.

O'Grady, William. 2007. *How children learn language.*
    Cambridge: Cambridge University Press.

Paradis, Johanne. 2007. Early bilingual and multilingual acquisition.
      In Auer & Wei (eds.), 15-44.

Pearson, Barbara. 2009. Children with two languages.
      In Bavin (ed.). 397-397.

Peccei, Jean, Stilwell. 2008. *Child language: a resource book for students.*
      Oxon: Routledge.

Pedagogisk psykologisk senter in Karmøy. 2006. Teaching bilingual/multilingual minorities
      in Norway: development, organizing and experiences of teaching Norwegian as a
      second language and mother tongue and bilingual teaching in primary and secondary
      education. www.karmoyped.no/terra/materials/teachingbilingual.pdf (last accessed
      03.05.2011).

Presas, Marisa. 2000. Bilingual competence and translation competence.
      In Schäffner & Adab (eds.), 19-32.

Romaine, Suzanne. 1995. *Bilingualism.*
      Oxford: Blackwell Publishers Ltd.

Rosenberg, Marsha. 1996. Raising bilingual children. *The Internet TESL Journal* 6 (2),
      http://iteslj.org/Articles/Rosenberg-Bilingual.html (last accessed: 04.05. 2011).

Reyes, Iliana. 2004. Functions of code switching in schoolchildren's conversations.
      Bilingual Research Journal 28 (1), 77-98.

Sadovski, Michael. 2004. *Teaching immigrant and second-language students: strategies for
      success.* Cambridge: Harvard Education Press.

Serratrice, Ludovica. 2001. The emergence of verbal morphology and the lead-lag pattern
      issue in bilingual acquisition. In Cenoz & Genesee (eds.), 43-70.

Schäffner, Christina & Beverly Adab (eds.). 2000. *Developing translation competence.*
      Amsterdam: John Benjamins Publishing Company.

Schlesinger, Arthur Jr. 1991. *The disuniting of America.*
      London: W. W. Norton.

Schmid, Monika, S. 2011. Development of linguistic incompetence? On L1attrition and the
    linguistic system, Rijksunversiteit Groningen, 58 pp.
    http://blog.univ-provence.fr/gallery/10/MSchmid.pdf (last accessed 04.05. 2011).

Skutnabb-Kangas, Tove. 1981. *Bilingualism or not: the education of minorities*.
    Clevedon: Multilingual Matters Ltd.

Stránská, Lucie. 2008. Vývoj řeči u bilingvních a multilingvních dětí. M.A.diss.
    Brno: Masaryk University.

Tomasello, Michael. 2005. *Constructing the language: a usage-based theory of language
    acquisition.* London: Harvard University Press.

Uccelli, Paola & Barbara Alexander Paul. 2009. Semantic development.
    In Gleason & Ratner (eds.), 104-138.

Vega, Luis A. 2008. Social psychological approaches to bilingualism.
    In Altarriba & Heredia (eds.), 185-198.

Wei, Li (ed.). 2000. *The bilingualism reader.*
    London: Routledge.

Zukowski, Andrea & Helen Tager-Flusberg. 2009. Putting words together: morphology and
    syntax in the preschool years. In Gleason & Ratner (eds.), 139-191.

Appendix 1

'Robinson Crusoe' translation task

Jeg ble født i 1632 i byen York og kom fra en god familie. Men jeg var tredje sønn og ble ikke opplært i noe yrke, derfor var hodet mitt svært tidlig fylt av alskens drømmer. Faren min mente jeg burde studere juss, men jeg kunne ikke tenke meg noe annet enn å dra til sjøs. En morgen tilkalte han meg og forklarte meg at det å reise til fremmede land på eventyr, det var noe enten for slike som var helt desperate, eller for dem som virkelig hadde hell med seg. Min situasjon var noe midt imellom, og han mente å ha erfart at det i grunnen var det beste i verden, the most suited to human happiness.

I was sincerely affected with this discourse and decided not to think of going abroad anymore, but to settle at home according to my father's desire. However, in a few weeks after, I decided to run quite away from him. I told my mother that I was now 18 years old and ask her if she could ask my father to let me go but one voyage abroad. I promised that if I came home again and did not like it, I would go no more.

Appendix 2

'George's marvellous medicine' translation task

Lørdag morgen sa Georgs mor til Georg: "Jeg drar til byen for å handle. "Vær nå snill gutt og finn ikke på noe galt mens jeg er borte." Det var en meget dum ting å si. En hvilken som helst liten gutt ville straks begynne å tenke på hva galt han kunne gjøre. "Ikke glem å gi bestemor medisinen hennes klokka elleve," la moren til. Og så gikk hun, closing the back door behind her.

Grandma, who was dozing in her chair by the window, opened one wicked little eye and said: "Now you heard what your mother said, George, Don't forget my medicine. " "No, Grandma, "George said. "And just try to behave yourself for once while your mother is away. " "Yes, Grandma, "George said.

Appendix 3

Language Background Questionnaire

To whom it may concern

Bilingual children can be different depending on their language history, language proficiency, language use etc. They acquire and use their languages in different situations, with different people and for different purposes. Therefore, I would like to ask you to fill in this questionnaire, so that I can learn more about the language background of my participants.

The data will be treated confidentially.

Thank you for your time and help!

Kind regards,

Jana Fornůsková

Language Background Questionnaire[16]

1) What language does the mother speak to the child?

2) What language does the father speak to the child?

3) What language(s) do you (parents) speak to one another? If you use both your languages, what is it that determines your choice or makes you shift from one to the other?

4) Has your child always lived in Norway? (If yes, continue with the 8. If the child lived in a country other than Norway, please continue with 5.)

5) In which country/countries (other than Norway) did you live?

[16] Based on the questionnaires by Harding-Esch et al., 2006: 91 and Strásnká, 2008: 110.

6) How long did you live there?

7) How old was your child when you arrived to/left that country?

8) Do you have contact with your English-speaking family/friends? (If yes, proceed to the 9th question. If not, please continue with question 10.)

9) How often do your children meet them?

10) What is the language of instruction in your child's school?

11) Does your child have any siblings? (If yes, continue with question 12. If not, proceed to question13.)

12) What language(s) do they speak to one another?

13) Does one of your child's languages seem to be dominant over the other? (If yes, continue with the 14th question. If not, please proceed to question 16.)

14) Which language is it and why?

15) Has it always been like that? If not, what do you think caused the shift in dominance?

16) Are there any means of support available in your home for maintaining the language(s) (i.e. books, magazines, movies etc.)?

17) Does the child produce mixed utterances? (If the child uses the 'correct' language in most instances, you finish with the 18th question.)

18) Has it always been like that or have there been any changes in the course of the child's linguistic development?

19) How often does the child mix the two (or more) languages and under which circumstances do you think this happens?

20) Does the child use the 'correct' language when speaking to you (parents)?

Appendix 4

Spørreskjema om språkerfaring og språkkompetanse[17]

(Language experience and proficiency questionnaire (LEAP-Q))

Del 1[18]

(1) Ranger språkene du kan etter hvilke du kan best (1-5).

(Arrange your languages in order of proficiency.)

(2) Nevn rekkefølgen av språkene du kan etter når du lærte dem (1-5).

(Arrange your languages in order of acquisition.)

(3) I løpet av en dag, hvor mye er du i kontakt med språkene du kan?

(How much are you in contact with each language every day?)

Velg en farge for hvert språk og fargelegg i sirkelen.

(Choose one colour for each language.)
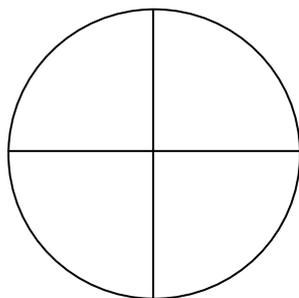
Sirkelen utgjør en dag.

**(4)** Med tanke på alle språkene du kan, ranger hvilke språk du helst vil lese favoritttegneserien din på.

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[17] Blumenfeld, Marian & Kaushanskaya. 2007. The Language Experience and Proficiency Questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech Language and Hearing Research, 50* (4), 940-967.

[18] The children were administered the same set of questions for each of their languages

(Think about the languages you know. In which language would you like to read your favorite comics?)

(5) Forestill deg at du møter en person som snakker de samme språkene som du. Hvor mye vil du snakke de forskjellige språkene? (Imagine that you meet a person who is equally proficient in all your languages. How much of the conversation is spent in each language?)

Velg en farge for hvert språk og fargelegg i sirkelen.
(Choose one colour for each language.)
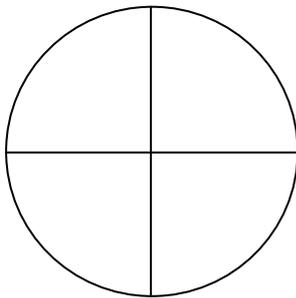
(6) Vennligst nevn kulturene du identifiserer deg med. Ut i fra følgende skala **(ingen identifisering (no identification), liten identifisering (low degree of identification), moderat identifisering (middle degree of identification) og komplett/total identifisering (complete identification),** skriv i hvilken grad du identifiserer deg med hver kultur. (Please, list the cultures you identify with. To what degree do you identify with each culture?

Eksempler på kulturer er: norsk, engelsk, pakistansk og så videre.
(Examples of cultures: Norwegian, English, Pakistani etc.)

(7) Hvor lenge har du vært bosatt i Norge?
(For how long have you been living in Norway?)