

What children know about communication

*A language biographical approach of the
heterogeneity of plurilingual groups*

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Cover illustration: Camille, 9 years old: 'Y a une fille qui va en Chine. La maîtresse dit: 'Écris ton nom au tableau.' Ça lui fait peur parce qu'elle comprend pas.' [There is a girl who goes to China. The teacher says : 'Write your name on the blackboard.' She is afraid because she doesn't understand.]

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What children know about communication

A language biographical approach of the heterogeneity of plurilingual groups

Ce que les enfants savent de la communication

Approche contextuelle de l'hétérogénéité de groupes plurilingues
(avec un résumé en français)

Wat kinderen weten van communicatie

Contextuele benadering van de heterogeniteit van meertalige groepen
(met een samenvatting in het Nederlands)

Proefschrift

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geboren op 16 juni 1972 te Brest, Frankrijk

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Prof.dr. V. Castellotti

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CHAPTER 1

INTRODUCTION

Why study children's knowledge about communication?

Multilingualism and exolingual situations of communication

Because of the recent globalization, more and more people are put in situations in which they need to interact without having sufficient knowledge of the target language(s). These situations have been defined as exolingual situations of communication. They are characterized by an uneven proficiency of the language used and can lead to breakdowns in communication if there is not a sufficient willingness to bring forth the exchange and use of communication strategies. These situations of multilingualism constitute one of the major challenges of our contemporary world (among others Dewaele & van Oudenhoven, 2009; Pavlenko & Blackledge, 2004; Genesee, 2004; Bhatia & Ritchie, 2004; Lasagabaster, 2008).

Requirements to treat exolingual situations of communication

In fact, when the language used in an interaction is unknown or only partially known to one of the participants, means of communication other than the purely linguistic ones must be considered in order to continue the exchange. Otherwise, a rupture of communication will occur.

Exolingual situations of communication

This term is central to this thesis and refers to situations characterized by a discrepancy in the proficiency in the target language between the interlocutors ranging from a very slight difference (such as a non-native accent) to a condition in which the interlocutors do not share the same languages (Alber & Py, 1985; Le Pichon- Vorstman, 2008). This last 'extreme' situation, defined by the absence of a common language between the interlocutors, is the one being explored in the present thesis.

For example, I was once told of a linguistics professor who went to the supermarket to buy some lamb. He did not, however, know the language of that country and decided to bleat. People understood him and he left

with his piece of lamb. When analyzing this example, I infer that this professor chose to use a certain strategy to obtain what he wished for. I can also state for a fact that he could have chosen other strategies. For instance, he could have asked for assistance or he could have tried to find out if somebody else in the vicinity spoke his own language. He could have tried using another language from his repertoire. He could have tried showing the item or attempted to proceed by elimination. He also could have given up the attempt at communication altogether, thereby avoiding the problem and reorienting his choice to some kind of food which was more easily available. There are thus a number of different options/strategies to solve a communication problem that stems from a lack of words. These strategies are called communication strategies.

Communication strategies

A strategy has been defined as ‘a plan that is consciously aimed at meeting a goal’ (Oxford, 2003: 274). Oxford underlined the importance of the concepts of consciousness, control, goal targeted, and intention. As exemplified above, in order to solve a communication problem one has to be aware of a range of available strategies. According to Goldstein and Levin, problem solving occurs when a goal cannot be reached using solely automated processes, thus requiring strategic competence (Goldstein & Levin, 1987).

Communication strategies have been extensively studied in adult language learners. Numerous researchers have confirmed the strong relationship between communication strategies and a high degree of processing control (Tardif, 1992; Kasper & Kellerman, 1997; Wenden, 1998; Rubin & Thompson, 1994; Lüdi, 2005; Oxford, 1990, 2001, 2008; Grenfell & Macaro, 2007; White, 2008). The ability to retrieve strategies and subsequently the willingness to use these strategies constitute the strategic competence. While the willingness to communicate is a requirement for the exchange to take place, strategic competence is considered an essential component of the treatment of exolingual situations of communication.

Willingness to communicate

Just like the professor who was not afraid or ashamed to bleat in a supermarket to get his piece of lamb, the ‘intentional attempt’ to cope with the problem of the exolingual situation of communication is to achieve an interpersonal interaction (Dörnyei & Scott, 1997:179). Interlocutors with different linguistic and cultural backgrounds need a strong communicative target, which is identified as the willingness to communicate (see MacIntyre, Clément, Dörnyei, & Noel, 1998).

Conceived as an essential component of exolingual interactions, the willingness to communicate emphasizes the importance of the determination, or absence thereof, involved in the process of carrying forth an exolingual exchange. This determination is marked by the use of strategies used by the interlocutors to bring forth the exolingual exchange as well as by the outcome of the exchange. For instance, if the interlocutors are willing to communicate but renounce carrying out the exchange because of a lack of mutual understanding, the outcome will be unsuccessful. Thus, while the willingness to communicate is essential to the success of the interaction, the optimal choice and use of strategies is equally important and strategies must be carefully chosen depending on the situation.

European classrooms: the children’s need for strategic competence

Nowadays, as a result of immigration, multilingualism is present in the majority of primary schools across European countries (see for instance Dewaele & van Oudenhoven, 2009; Lasagabaster, 2008; Moore, D., 2006; Hanson, Boogaard & Herrlitz, 2003; Tuijl, Leseman & Rispen, 2001)). One consequence of the omnipresence of multilingualism is the appearance of more and more situations where the languages spoken by subgroups of school-going children are not included in the educational curriculum (Castellotti & Moore, 2008; Castellotti & Moore, 2006; Miller, 2004). The schooling of a child in a monolingual system that does not include the child's mother tongue is called ‘submersive’. The term submersive does not refer to a program at all but to the schooling of minority language children, so called because they belong to a group that speak another first language than the nation one, and therefore have no choice but to attend school in a language that they do not master.

Interestingly, the term 'submersive' refers to a sinking process and indeed, as shown by numerous studies, this form of schooling often results in poor educational achievement for minority language children (for instance Cummins, 2000; Benson, 2009; Mohanty, 2009; Jhingran, 2009).

Against this background, it is reasonable to assume that this particular group of children is likely to benefit from some kind of strategic competence in order to communicate, particularly in the school environment. They are continuously challenged to display communication strategies to express their thoughts or incomprehension during recess as well as during formal teaching. However, it is a hard task for a child that does not understand a text, an expression, a sentence, or even a word to manifest his or her incomprehension. In such a situation, the child will have to interrupt the course of an ongoing communication, for instance, to ask for assistance and/or for clarification, otherwise he/she will quickly lose track of what is being taught. Ultimately, such events may become a pattern that is likely to be highly prejudicial to the cognitive development of the child. Strategic competence is thus necessary in order to prevent this negative outcome. Strategic competence is a key concern of this thesis (see chapter 2-5).

Awareness of metacommunication

Metacommunication

In an extreme exolingual situation of communication, where, by definition, the purely linguistic information is not accessible because of an extreme discrepancy in the proficiency in the target language, contextual cues become all the more essential to the interaction. From the contextual clues, one can infer the meaning of a communicative exchange without a full understanding of the meaning of the words. Contextual clues include physical cues: all cues that contribute to the interpretation of the message conveyed (spatial, kinesic including the expression of the face, of the eyes, gestures, and prosodic cues) may lend to the meaning that each member takes away of the ongoing exchange. These cues are used by the participants to negotiate their way through the interaction depending on what they wish to express (Gumperz, 1983). The awareness of these contextual cues is usually referred to as an awareness of metacommunication.

In the case of an extreme exolingual situation of communication, i.e. when the interlocutors do not share the same language(s), strategic competence is even more necessary. In such a case, children and teachers need to be aware of metacommunication.

In an extreme exolingual situation of communication, a child needs to make use of contextual cues to negotiate his/her way through the interaction with the help of strategies.

The nine strategies evaluated in this thesis

In an exolingual situation of communication, children will have:

1. to focus their attention to identify the problem and to get back on track (strategy of directed attention),
2. to elaborate a plan of action (strategy of anticipation),
3. to control positively his/her emotions and to not be afraid to manifest his/her willingness to communicate (strategy of control of emotions).

Despite the lack of words the child will then possibly be able:

4. to propose an explicit action to communicate (strategy of cooperation),
5. to mime what he/she wishes to express (strategy of mime),
6. to propose another language (strategy of language switch),
7. to appeal to someone for help (strategy of ask for assistance),
8. to imitate the other interlocutor (strategy of imitation), or
9. to reassess the information source by asking for further explanation (strategy of clarification).

The willingness to communicate and these nine communication strategies are at the very heart of this thesis. Children's perceptions and treatment of exolingual situations of communication are measured through the identification of the children's willingness to communicate and of their strategy use. Thus, knowing how children perceive, understand, control and handle exolingual situations of communication is essential in order to help teachers and children cope with these situations and more specifically, in order to help all bilingual children have access to the

school's knowledge (see also, Lüdi, 2005). The concept of metacognition comprises both strategic competence and metacommunicative awareness.

Metacognition and children

Essentially, children have been found capable of displaying metacognitive awareness but information still lacks on metacognitive awareness in very young children and more specifically on strategic competence (Chamot & El'Dinary, 1999; Benson, 2009). Some researchers found what they called an enhanced communicative awareness in bilingual children when compared to monolingual children (see Cenoz & Jessner, 2000: 48, Genesee, Tucker & Lambert, 1975; Jessner, 1997; Jorda, 2005; Hoffmann, 2001). One particular skill that bilingual children (children that are raised bilingual) have is their ability from a very young age (2,5 years old) to switch languages depending on their interlocutor's linguistic background. Indeed, a monolingual child cannot switch languages knowing, by definition, only one language. Therefore, this particular skill does not provide insight into the question whether native bilingual children are really more aware of situations of communication than monolingual children.

Metacognition

This is the individual's awareness of his/her learning strategies and mental activities to self regulate the learning process. Strategies are central to the concept of metacognition, (e.g. Brown & Day, 1983, Beacco, 2007). Metacognition is crucial in the process of learning and in particular of learning an additional language since it involves cognitive processes such as memory, comprehension, learning and attention (e.g. Kemp, 2007; Stern, 1975; Oxford, 1990; Rubin, 1975).

In addition, not all studies report advantages for multilinguals (Nayak, Hansen, Krueger & McLaughlin, 1990) and/or bilingual children (for a review Cenoz & Jessner, 2000). For instance Bialystok, (2001), Bialystok, Majumder and Martin, (2003) report no difference between the groups. While Rubin and Turner (1989) noticed better performances in metalinguistic tasks by children exposed to bilingualism through recent schooling in an immersion program when compared to bilingual

Introduction

children in a monolingual program, Campbell and Sais (1995), Yelland, Pollard and Mercuri (1993) and Bruck and Genesee (1995) reported that these bilingual advantages disappeared at the end of the first grade. All in all, the inconsistency of the findings of these studies suggests the influence of factors other than bilingualism per se on the performance of the observed groups of participants.

Therefore, it is essential to examine which factors may particularly develop or hinder the child's metacognitive awareness, which allows them to handle situations of communication. In the present thesis, the potential influence of the four following factors is addressed: native bilingualism, the explicit learning of a new language, the age of the child, a child's cognitive orientation.

In order to examine the possible influence of these factors on the communicative competence of the children, data are examined through a language biographical approach.

Language biographical approach

The language biographical approach consists of gathering a detailed linguistic history of each child for each language. The researcher investigates the child's language learning experiences with regard to variety and types of contexts of acquisition. Results obtained include the social context of language acquisition, the nature of the family language related history, the perception that the child has of his/her languages and the timing or order of acquisition (see for instance Castellotti & Moore, 2006; Molinié, 2006; Lüdi, 2005; Franceschini, Zappatore, Lüdi, Radü, Wattendorf & Nitsch, 2001; Porquier & Py, 2006).

This thesis: a study of the heterogeneity of plurilingual groups

Plurilingual groups of children

The term ‘plurilingual,’ that my automatic English correction software still does not accept and underlines in red, embodies language, culture, development and vitality, an approach which goes beyond the strictly linguistic one. As proposed by Coste, Moore and Zarate in 1997, in this thesis, ‘plurilingualism’ points to a somehow more flexible content of competences, as opposed to the concept of bilingualism (Coste, Moore & Zarate, 1997:12). My thesis is based on this concept. This means that all children that have been exposed to more than one language are considered plurilingual even if their proficiency in the foreign language may be very limited.

Effects of learning a foreign language

As proposed by Bialystok in 2003, the heterogeneity of the linguistic curriculum in bilingual children may explain the absence of bilingual advantages. Indeed, a number of factors may intervene in the process of plurilingual education that may significantly influence the outcomes, including the learning of a foreign language. In 2002 the European Council adopted active linguistic educational politics to ensure that one, or ideally two, foreign languages would be taught from grade one and onwards in every primary school in Europe. This policy, which aims at improving ‘the mastery of basic skills, in particular by teaching at least two foreign languages from a very early age,’ seems to complicate the situation for minority language children enrolled in monolingual educative systems, (European Council, 2002: 3). One wants these children to be more proficient in the school language but instead of improving their target language skills, an additional language is introduced in their school curriculum. This may sound contradictory. However, research conducted so far suggests that the introduction of an additional language in the curriculum of very young plurilingual children does not present any disadvantage in terms of academic achievement (Genesee, 2007; Goorhuis & De Bot, 2005). For instance, Demont found that the learning of a new language may enhance the reading proficiency

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of very young learners (Demont, 2001). Moreover, in a Dutch pilot experiment, the language proficiency of minority children in Dutch (the school language) even seemed to be secured by the experience of learning a new language (Goorhuis-Brouwer & de Bot, 2005). These findings strongly suggest that there are benefits associated to the learning of a new language from a very young age in a school context which appear to go beyond the acquisition of the new language itself. How is this possible?

Foreign language courses embody the creation of artificial situations of communication in which a learner is asked to communicate in a foreign language that he/she does not already master. According to Vygotsky, confrontation with new languages may facilitate the emergence of the awareness of language itself and the control over its development in the individual (Vygotsky, 1962). Learning becomes, in his words, a conscious process, particularly developed by explicit and formal instruction. When learning our first languages, none of us started with the alphabet. On the contrary, learning a foreign language in a formal context usually involves a reflection on the situation before it happens, and after it has happened. There is a process of reasoning, involving several steps, which is part of the communicative process in a language course thereby potentially generating an awareness of situations of communication where a lack of understanding occurs. Based on the assumption that learning a new language at school may bring advantages to the overall cognitive development of the young child, I chose to investigate the children's awareness of communication in exolingual situations of communication.

The concept of Language Learning Experience

In this thesis the language learning experience in a formal/school context is called Language Learning Experience, abbreviated LLE. The “Language Learning Experience” presents a direct contrast to “without a Language Learning Experience”, abbreviated nLLE.

LLE

Children in the LLE group have learned or are in the process of learning a second or a third language in a formal context. For instance, a child that lived in France with French speaking parents who moved to the U.S.A. after age four and was enrolled in the French International School where he/she is exposed for the first time to English courses is considered LLE.

nLLE

Children in the nLLE group were exposed to the second language before the age of four. If they were not subsequently (after the age of four) involved in learning a foreign language, they are considered nLLE. For instance, a child whose parents speak French and English at home and who is enrolled in the French International School in the United States of America is considered nLLE.

In this thesis I compare the reactions of the LLE children to the exolingual situations of communication with the reactions of the nLLE children. This is in line with the idea that learning a new language may present advantages in terms of metacognition. Thus, while the general assumption holds that bilingualism in itself may generate metacognitive advantages in comparison to monolingualism through the enhancement of metalinguistic awareness (for a review see Cenoz & Jessner, 2000), I hypothesize that these metacognitive advantages arise from one particular aspect that of some bilingual children and which is not restricted, strictly speaking, to bilingual children only: the conscious experience of learning a new language. Based on a very precise description of the linguistic repertoire of the children, the language biographical approach (see explanatory box), when studying the reactions to exolingual communication I not only compare monolingual with bilingual children, but also LLE children with nLLE children.

Hypothesis

The Language Learning Experience generates advantages beyond the purely linguistic advantage of knowing an additional language. More specifically, LLE may be a more relevant factor for the development of certain aspects of metacognitive awareness in young children than bilingualism per se, such as:

- The ability to think about communication beyond the linguistic level (metacommunicative awareness).
- The willingness to communicate in exolingual situations of communication.
- The capacity to consider strategies to carry out an exolingual exchange (strategic competence).

Description and methods of the studies of this thesis

General approach

In order to test the hypothesis of a positive effect of LLE on aspects of metacognitive awareness a sample of 101 children was collected and studied in using a semi-standardized series of tests.

In essence, the findings of the studies in this thesis extensively describe the reactions of 101 children in different exolingual situations of communication. To understand the perceptions that children had of these exolingual situations and how they handled them, I visited three schools in three different countries: the Netherlands, the United States of America and Switzerland. In all cases the children were happy to escape the classroom for a few moments. They agreed to reflect upon the exolingual situations of communication that I presented them with, and to answer my questions about their linguistic repertoire.

Features that distinguish my study from previous research

First of all, my research includes groups of plurilingual children that differ in age, country of schooling, sex, language repertoire and linguistic background (including monolingual children in the process of learning a new language, bilingual children and bilingual children in the process of learning a third language). This variety and a precise description of the language biography of each child at the moment of the test allow for a comparison of the children's answers by taking each of these variables into account as proposed by Véronique (2005).

Second, the **data collection** between September 2004 and September 2006 was limited to three **French (International) schools**, one in each country. In each school, LLE and nLLE children came from the same classrooms. This allowed me to assume that the LLE children and nLLE were facing comparable communicative challenges as well as benefiting from comparable educational approaches.

International schools are characterized by an application of various methods of teaching and serve a population of students with very diverse linguistic backgrounds. The major variation between schools is the repartition of the amount of time allowed for each of the school languages. However, all these schools tend to aim for each child to have a near native linguistic competence in the school's language(s).

This means that these schools offer:

- A sufficient amount of exposure to each of the school languages.
- A main focus on comprehension as opposed to a focus on structure (the structure of the languages being taught naturally when the input is understood).

It also means that there is little explicit instruction as to the languages, although, when needed, explicit instruction may be added to a child's curriculum. In the United States for instance, half an hour of French or English was offered in the morning (before the start of school) to the children from grade 1.

Among the three schools from which I collected the data, two were primarily French speaking schools and one divided its time between two languages, English and French. This meant that, in each school, some of the children involved were already speakers of the target languages (monolingual or bilingual children) while others were not (monolingual or bilingual children in other language(s)). In the Netherlands, in Switzerland and in the United States of America, the three schools

Introduction

offered courses in other languages (respectively Dutch, German, and Spanish) from grade one and onwards.

The **protocol** used is a semi-standardized interview constituted of open questions. As proposed by Hurd and Lewis, answering open questions and solving problems while thinking aloud offer new opportunities to raise innovative data with regard to communication strategies (Hurd & Lewis, 2008). Additionally, given the age of the children (4-11), a written test like a questionnaire would have cognitively disadvantaged the children with lower writing/reading competences. In the end, I also wanted to give the child the opportunity to switch to another language, if he/she felt more comfortable doing so. It is easier to adjust the language within a dialogue than on paper.

I chose to create **test situations** in which the children's understanding of exolingual situations of communication could be assessed. One of the reasons why I opted for the exolingual test instead of the many other tests available is that learners of foreign languages are constantly confronted with exolingual situations of communication. They start learning a new language with no prior knowledge of the language in particular but have to communicate with speakers of that language anyway, both within formal contexts, such as in the classroom, and within informal contexts, such as while on vacation. Therefore, I believed that testing an exolingual situation would be more informative with regard to communicative skills because it forces the participant to make use of their communicative resources.

Outline of this thesis

The main factor that is explored in this thesis is the Language Learning Experience, abbreviated LLE. The underlying goal is to understand to which extent the context in which a language is learned may influence the communicative competence of the children.

CHAPTER 2

Language Learning Experience in school context and metacognitive awareness of multilingual children.

In this chapter, I first examine how children perceive exolingual situations of communication, what they understand of it and how they treat these situations. The hypothesis is that LLE children will outperform nLLE children in their ability to understand a message within the exolingual situation of communication. I also hypothesize that the differences observed might be due to the fact that LLE children are more aware of contextual cues than nLLE children. To test these hypotheses, I present each child with two short movie clips: one with sound in which a situation is enacted in a language they cannot understand, and one without sound in which a similar situation is enacted. The movie presents an actor in the process of cutting a fruit or filling a glass with water. He/she presents it (the fruit, the glass) to the camera while talking in a foreign language. The monologue ends with a question form as revealed by explicit prosodic (a rising voice) and kinesic cues (the glass is explicitly presented to the camera). After each version of the movie clips, I ask the children 3 questions: (1) What would you answer her/him? (2) What did you see in the movie? (3) Did you understand? How did you do that, to understand? I analyze the children's reactions to the exolingual (sound) version and to the silent situations of communication acted in the movie. How do the children attempt to solve the communication problem? The children's answers firmly back-up the hypothesis that children that have an experience of learning a language at school (LLE children) display more metacommunicative awareness than nLLE children (i.e. without that specific experience).

CHAPTER 3

Effect of learning a new language on the willingness to communicate.

Having explored how the children perceive the exolingual situation of communication, this paper describes the children's willingness to communicate or lack thereof to challenge the homogeneity of bilingual groups of children. Based on the literature, I first hypothesize that bilingual children will be more willing to communicate than monolinguals. Then, based on the results from chapter 2, I hypothesize that, due to an enhanced metacommunicative awareness, the LLE children will be more willing to communicate than the nLLE children. To test these hypotheses, I confront the children with an extreme exolingual situation of communication. I ask them: 'You are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?' Success or failure of the interactions is evaluated on the level of determination in the willingness to communicate, in other words, the children's decision whether or not to engage in the play date. Findings point to a lack of differences between the reactions of bilingual children when compared to monolingual children. The results also show that LLE children are more willing to communicate than their nLLE peers.

CHAPTER 4

Influence of the context of learning a language on the strategic competence of children.

In this paper, the answers of the children to the same question are observed from a strategic point of view. LLE children have proved to be more willing to communicate in such a situation (chapter 3). Will LLE children also display more strategic competence than their nLLE peers? In other words, to what extent does LLE influence the strategic competence of children? I hypothesize that LLE children will not only outperform nLLE children in terms of their willingness to communicate but also in their awareness of and willingness to use communicative strategies, (competence possibly brought on by the awareness of learning a new language). Again, findings confirm the absence of differences between monolingual children and plurilingual children but a strong strategic advantage in favor of LLE children with regard to the test situation.

CHAPTER 5

Speaker, Hearer and External orientations: the influence of the context of acquisition and age on the strategic competence.

In the previous study, LLE children are found to display more strategies in an exolingual situation in comparison to nLLE children and to access a broader range of strategies. However, a variety of strategies is used for the same task and the distribution seems to be only partly explained by LLE. Indeed, for certain strategies no differences have been found between the strategic competence of LLE and nLLE children. This finding suggests that the nine observed strategies can perhaps be explained in terms of a smaller number of cognitive orientations. Therefore, I expand the analyses of the observations of the children to examine two hypotheses. First, I hypothesize that the strategies reported by the children will group into a limited number of strategic clusters. Second, I hypothesize that the children's strategic competence will depend not only on LLE but also on age. Three cognitive orientations emerge from the analyses that I call 'Speaker, Hearer and External orientations'. Analyses also show a strong influence of age on the three identified factors.

CHAPTER 6

The relationship between perceived communication, the willingness to communicate, strategic competence and cognitive orientations.

In this last chapter, rationale and findings of each of the four studies are summarized. In particular, the nature of LLE and of the strategic competence is considered in relation to the results of the four preceding studies. Many researchers have argued that willingness to communicate and strategic competence have an important positive impact on learning a language. However, few have explored the children's communicative awareness of strategies qualitatively and quantitatively and with regard to their linguistic repertoire, i.e. the context in which a language has been learned, with whom, and at what age (see for instance Takeuchi, Griffiths & Coyle, 2007). The identification of the way children treat exolingual situations of communication and of the factors that influence their treatment is essential to understanding how to better direct our teaching methods. I believe that the findings of my research highly contribute to our understanding of the interrelationships between social interactions and the learning of the languages.

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CHAPTER 2

LANGUAGE LEARNING EXPERIENCE IN SCHOOL CONTEXT AND METACOGNITIVE AWARENESS OF MULTILINGUAL CHILDREN

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ABSTRACT

What is the influence of a language learning experience in a school context on the metacognitive development of children? To answer that question we examined reactions of 54 multilingual preschoolers confronted to an exolingual situation of communication. We focused on the receptive component of communication. We observed how young children aged four and a half to six and a half years old treated the reception of information during situations of communication in which they did not share the same language as their interlocutor. We hypothesized that children with a Language Learning Experience in a formal context (abbreviated LLE) would outperform children without that specific experience (abbreviated nLLE) with respect to their communicative abilities in this test paradigm. Further, we hypothesized that differences observed could be explained by the fact that LLE children would be more aware of all contextual cues than nLLE children. In contrast, we expected nLLE children to focus more on the linguistic cues. Reactions to two short movie clips were audio recorded for subsequent analysis.

Our results confirm that the context of foreign language learning significantly affects the metacognitive awareness being a potential facilitating factor for the treatment of communicative interactions.

Introduction

Many European countries have made educational changes due to the growing globalization trend that has increased the necessity to raise children multilingually. In 2002, the European Council asked ‘for further actions (...) to improve the mastery of basic skills, in particular by teaching at least two foreign languages from a very early age’, (2002: 3). For instance, in the Netherlands the introduction of an additional language was officially introduced in 2008 at (pre)kindergarten level following a successful trial of what was dubbed an ‘early bird’ experience (Goorhuis-Brouwer & de Bot, 2005). In 2005, an early exposure to a foreign language in a school context was made possible in France from grade one and onwards. In addition, since 2006, French postulant teachers of elementary education are required to pass a foreign language test in order to be allowed to teach (Éducation Nationale, 2006). Altogether, these examples show changes which appear to reveal a growing and urgent awareness that everyone should speak more than one language in order to be able to match the language and intercultural skills which are required to integrate optimally in today’s society (e.g. Lasagabaster, 2008).

Numerous studies have explored the effects of potential factors of variations on the acquisition of a new language (e.g. attitudes and motivation as cited in Bernaus, Masgoret, Gardner, & Reyes, 2004, or multilingualism, see Cenoz, Hufeison, & Jessner, 2001a, 2001b, Cenoz & Hoffmann, 2003). However, to our knowledge study on the effects of learning a new language in a school context versus in a natural context on the metacognitive awareness of the children is still limited.

A better understanding of the specific effects of a foreign language course on the metacognitive development of children would help find ways in which learners can be taught to better apply their metacognitive resources.

The main objective of this paper is to examine the effect of the context in which multilingual children acquired their languages on several aspects of metacognitive awareness.

First, a review of reported consequences of learning a new language at a very young age will be outlined. This will provide the background against which the concept of metacognitive awareness will be introduced.

Second, we will motivate our hypothesis that the context of language acquisition is a highly relevant factor of influence on the level of metacognitive awareness in multilingual children.

The linguistic competence and the context of learning

The introduction of foreign language education in elementary schools offers great opportunities to explore its effects on the metacognitive development of the child. It also raises many questions such as:

- What results should we expect in terms of competences?
- What type of education provides the best results (book based, language awareness model, partial immersion)?

Most of these questions have not yet been answered adequately and/or are associated with contradictory research findings.

It is important to note that studies into the potential advantages of multilingualism (i.e. the concept of having acquired or being in the process of acquiring a new language), may be complicated by several factors. These factors all point out the heterogeneous character of multilingual (study) populations (e.g. Genesee and Nicoladis, 2006). An important factor contributing to heterogeneity may be the variables relating to the linguistic curriculum of the child. Such variables might include the context of learning and starting age of the language learning experience among many others. While the importance of the conditions of learning environments has been put forward by researchers (e.g. Patterson & Rodriguez, 2005; Cenoz, et al., 2001b), a large amount of studies have not sufficiently considered the language acquisition contexts as potential factors of heterogeneity. For instance, the difference between learning an additional language in a formal setting versus in a natural setting may be a relevant factor.

In 2006, Muñoz gathered nine studies that focused on the effect of age and exposure to foreign language learning acquired in formal settings on linguistic competences. Overall, the results of these studies indicated that students that started a foreign language later, had an advantage (at least in the short term) with regard to perception (Fullana, 2006), oral fluency (Mora, 2006), lexical acquisition (Miralpeix, 2006) and morphological acquisition (Muñoz, 2006). Given the large differences in age range of the queried groups from the different studies, it would be unwise to draw general conclusions (e.g. in one study children aged eight were compared

to eleven year olds, while another study compared children aged twelve to adults).

Nevertheless, as already claimed by Singleton and Lengyel (1995) it seems to be safe to say that the results appear to indicate no particular advantages associated with exposure to a foreign language learning course at a younger age.

If learning a language at an early age at school does not appear to enhance the linguistics competence more than exposure at an advanced age, then why do European educational policies overwhelmingly opt for earlier language learning exposure in formal contexts?

Metacognitive awareness

An important benefit of multilingualism resides in the fact that it provides the child *non-linguistic* advantages which may in turn directly enhance his/her chances of becoming more competent in applying their cognitive resources. As numerous studies (e.g. Jessner, 2008; Cubukcu, 2008; Chamot, 2004, 2005; Francis, 2004; Bialystok, 2001) which observed very young multilingual speakers have shown, one of the possible benefits of early exposure to a foreign language may be an enhanced metacognitive awareness.

First defined by Flavell in 1978, metacognition refers to an individuals' awareness of his/her learning strategies and mental activities to self regulate the learning process.

In 1987 Van Kleeck added to the definition of metacognitive awareness the involvement of cognitive processes such as memory, comprehension, learning and attention (Van Kleeck, & Schuele, 1987). This addition enlightens the important role played by metacognition in the process of learning in general and in particular of learning an additional language (Kemp, 2007; Stern, 1975; Oxford, 1990; Rubin, 1975).

It draws attention to the enhancement of cognitive strategies, a somewhat different target than the purely linguistic one. It is about the 'learning how to' which is now being considered as important as the 'learning to'. Within their enhanced metacognitive awareness, multilingual learners/speakers have been found to be particularly skilled in their metalinguistic awareness. This is defined as the ability to think about languages (Bialystok, 2001). It would allow multilingual speakers to be more adept at learning an additional language (Kemp, 2007; Herdina &

Jessner, 2002; Jessner, 1999; Cook, 1993; Malakoff, 1992; McLaughlin & Nayak, 1989).

However, can we expect from the experience of learning a new language at school the same effects as from simultaneous bilingualism?

Awareness of (meta) communication

The process of learning an additional language also requires the acquisition of an awareness of communication (Le Pair, 2006) (i.g. an awareness of how to communicate in a target language/culture which accounts for mutual understanding). Every foreign language student is familiar with the struggle of trying to communicate despite a lack of words, especially at the very first stages of acquisition. This uncomfortable and unbalanced situation of communication was pointed out by Porquier (1984). He called it 'exolingual situation of communication'. He characterized it as an asymmetry of the linguistic competencies of the speakers (Porquier, 1984; Alber & Py, 1986; Py, 1986).

This situation implies a necessary co-construction of the interaction (for a review, see de Pietro, Matthey & Py, 1988) and necessitates a high degree of cognitive investment, i.e. anticipation of the participation. It involves an in depth analysis of the interaction prior to the intervention and requires readjustment depending on the analysis from a receptive point of view.

The analysis of the situation can be described with the help of the following questions:

- How can I interpret what I just saw or heard?
- How can I reply to it in order to be understood?

In the case of an extreme exolingual situation of communication, the interlocutors do not share any common spoken language. In such a situation the personal investment needs to be even more significant. In order to communicate, one is forced to look for and to use other semiotic systems. The recognition of contextual cues seems essential for the adequate interpretation of a given situation. From the contextual clues and the prosodic cues, one can infer the meaning of a communicative exchange without a full understanding of the meaning of the words. Contextual clues include physical cues: spatial, kinesic (including the expression of the face, the eyes, and gestures) and/or prosodic cues. Beyond the explicit message, the interpretation of metacommunication

can be considered as an essential component of the process of acquisition of the communicative competence (Guidetti & Nicoladis, 2008).

In this exolingual context, to be competent means to find an answer adapted to the situation with or without words, i.e. knowing 'how to' (O'Malley & Chamot, 1990). The level of the efficiency of the answer depends on the degree of understanding of the particular situation.

As pointed out by Porquier (1984) this asymmetry of the situation of communication potentially engenders metacommunication through the cooperation of the interlocutors. According to Bateson, metacommunication occurs when "the subject of discourse is the relationship between the speakers" (1972: 178).

Young children may engage in peer interactive play by the exchange of metacommunicative signals. More specifically, bilingual children have been found to use gesture to compensate for a lack of words in their weaker language (Nicoladis, 2002). Moreover, in very young children, the need for words usually seems to be treated more as tool than a finality (e.g. Danby, 2002, Guidetti & al, 2008), while most of us (out of a fear of being incompetent and/ or not understood) need at least some basic lexical knowledge to communicate in a targeted language.

However, with regard to that unusual but very common exolingual situation of communication, why is it that one person turns out to be more efficient than another?

Does a multilingual child automatically develop the necessary resources to understand and to handle the exolingual situation of communication better than a monolingual child?

Are there other significant factors of development of the (meta)communicative awareness within the context of learning?

Communicative competence in multilingual children

Researchers often describe bilingual children as more sensitive to communication needs than monolingual children. This claim is based on several studies (e.g. Comeau, Genesee & Lapaquette, 2003; Comeau & Genesee, 2001; Lanza, 2001; Kasuya, 1998; Nicoladis & Genesee, 1998; Genesee & Nicoladis, 2006) and is measured through their increased ability to switch between the codes. The authors argue that code switching may be indicative of an increased communicative awareness. It would form a major contribution to an overall better communicative

competence in multilingual children naturally exposed to two or more languages.

However, we suggest that factors other than multilingualism per se (e.g. the context of acquisition of the languages) significantly influence the development of communicative competence.

We propose that an increased communicative awareness may not only become apparent through enhanced code switching and/or the mastery of spoken languages, but also through a better, more comprehensive awareness of metacommunication.

The context of acquisition

Despite the observation of heterogeneity of the multilingual population numerous studies on multilingual education to date, have compared monolingual to multilingual children, thereby implicitly assuming a certain degree of homogeneity in these groups.

In our study we chose to explore the heterogeneity of the multilingual groups taking into account the context of learning as a relevant factor. Instead of comparing multilingual to monolingual groups, we compared children with a conscious experience of learning a new language in a formal context (abbreviated 'LLE', i.e. with Language Learning Experience) versus children without that specific experience (abbreviated 'nLLE', i.e. without Language Learning Experience).

The classification of the linguistic experiences of the children into LLE versus nLLE was made possible by the elaboration of precise questionnaires to which teachers and children were required to answer, the latter during the interview as described below.

The current study was set up to explore the relevance of LLE. We focused on the metacognitive component of communication. We defined a task which would assess the child's awareness of metacommunication without being directly dependent on the development of the spoken languages. We did not consider the children's attained level of language in L1, L2, and L3.

The results showed an increased metacommunicative awareness in LLE children. To explain these results, we investigated how the children perceived the situation of communication and what they understood of it.

54 children enrolled in the same international school were presented with a movie clip that depicted a situation of communication in which they could not understand the spoken language. We observed the children's perceptions and reactions to the movie clip to better understand the metacognitive processes underlying their reactions.

We hypothesized that LLE children would outperform nLLE children in their ability to understand a message within the exolingual situation of communication.

More specifically, we hypothesized that the differences observed would be explained by the fact that LLE children would be more aware of the contextual cues than nLLE children. Consequently, they might be more inclined to answer the actor and less inclined to give up the exchange. The better performance in the LLE group would consist of a greater willingness to communicate, a more integrated view of the contextual cues and an enhanced awareness of metacommunication.

We also hypothesized that the underperformance of nLLE children would be caused by their greater inclination to listen to the linguistic cues of the message, thereby missing the contextual cues.

Method

Participants

54 children, (32 girls and 22 boys) aged four and a half to six and a half (mean age= 5, 5) all issued from the same school and attending pre-kindergarten or kindergarten were tested in a room situated in a French International School in the United States of America. We chose not to select older children because beginning in first grade, children are confronted to success and failure in terms of grades. In (pre)kindergarten this is not yet the case.

According to the school, its student body is composed of one third English speaking families, one third French speaking families and one third international and bilingual families. 48 nationalities are represented in the school.

When enrolling in pre-kindergarten or kindergarten, it is not necessary for children to have been previously exposed to one of the two languages of schooling (French and English). For that reason, the abilities of the children in each language when entering school range from monolingual in French or English, bilingual in the same two languages, monolingual in another language or bilingual in French or in English and another language (Spanish, Italian, Dutch, German, and Farsi were all amongst the additional languages represented in our study sample).

The school provides an early immersion program and all the children are confronted daily to 80% French and 20% English at Pre-kindergarten level (e.g. an hour a day with an American teacher) and 75% French and 25% English at Kindergarten level (e.g. an hour and a half a day with an American teacher). Both grades receive an additional hour per week of music classes in English.

Procedure

In terms of the linguistic curriculum of the learner, we differentiated between the children that had been exposed to their languages without any schooling and before the age of four, and the children that had learned a language after the age of four in a formal context of schooling (school or specific language course). We named the first group 'nLLE' and the second 'LLE'.

We chose the age of four taking into account a cut-off point based on several claims. McLaughlin (1984) chose three as cut-off age for the introduction of the difference between sequential versus simultaneous acquisition. According to Farver, three is the age at which children are already capable of engaging in coherent discourse (Farver, 1992) and play with peers (Garvey & Berndt, 1977), while at four, essential grammatical concepts are supposed to be acquired (Unsworth, 2005). Choosing four and a half, we assumed a certain maturation of the aforementioned concepts.

We classified data according to the context of acquisition for each language that the child had been exposed to, such as the social environments (home, schools, communities) and the method of acquisition (formal versus natural). Because all the children were in the

same international school, it allowed us to assume a certain degree of homogeneity in the defined assessments, hence in the type of schooling. We gathered a detailed linguistic history of each child for each language through their teachers and the childrens' interviews using open-ended questions to investigate the child's language learning experiences with regard to variety and types of contexts of acquisition.

The results that we obtained included the proportion of input for each language with regard to the context of use, (where, with whom). That is, the social context of language acquisition (communication situations or events), the nature of the family language related history (moving, before the birth, after, mixed families), the perception that the child had of his/her languages and the timing or order of acquisition.

The latter allowed us to make a distinction between simultaneous and sequential acquisition (McLaughlin, 1978; Lambert, 1974). For instance, some children acquired two languages simultaneously beginning at birth and were also acquiring a third language sequentially through their education. This distinction may be highly relevant with regard to verbal willingness to communicate (Roseberry-McKibben, 1995).

In summary, in order to classify the children's linguistic experiences we formed two different groups LLE or nLLE:

- LLE: Monolingual children in the process of learning a second language and bilingual children in the process of learning a third language.
- nLLE: Bilingual children (nLLE).

Table 1. Demographic characteristics of the study sample

	N	Mean age (range 4 to 6)	Gender
LLE	31	5,5	61% girls
nLLE	23	5,5	52% girls
LLE+nLLE	54	5,5	59% girls

Test administration

The data consists of audio records of the 54 interviews of multilingual children (LLE, n=31; nLLE, n=23). Given the young age of the children we conducted short interviews (max. 12 minutes in total).

The situation enacted in the movies confronted the child with a problem to solve, and was designed to provoke reactions. We tried to incite the children to draw on their emotions and to externalize their reasoning.

We designed four short movie clips. Each child watched two sequences:

- One with sound in which a situation was enacted in a language they could not understand, and,
- One without sound in which a similar situation was enacted.

Considering possible effects of the order of exposure, (the one version possibly facilitating more easily the understanding of other semiotic cues than the other), the order in which the sound and the silent version were presented to each child was randomized.

To ensure that the children could not understand the language of the sound version, the researcher chose one of the four clips taking into account the data collected through the questionnaires enlightening the linguistics experiences of the children.

The choice of the languages of the movie clips included Pakistani, Dutch, German and Polish. For instance, a bilingual child in Spanish and English in the process of learning French could be presented with either of the four versions while a bilingual child in Farsi and English in the process of learning French would not be presented to the Pakistani one, assuming a possible recognition of the language. If a child mentioned a language in the interview even if no mention had been made of it by the teacher, this language was excluded of the list of possibilities for that particular child.

We analyzed their reactions to the exolingual (sound) version and to the silent situations of communication acted in the movie and how they attempted to solve the communication problem. The movie presented an actor in the process of cutting a fruit or filling a glass with water. He/she presented it (the fruit, the glass) to the camera while talking in a foreign language. The monologue ended with a question form as revealed by explicit prosodic and kinesic cues.

To facilitate the interaction, we conceived three questions.

1. What would you answer her/him?
2. What did you see in the movie?
3. Did you understand? How did you do that, to understand?

Guided by the three questions of the researcher, each child proposed one or more explanations. As some questions may be more difficult to answer than others, if a child showed any trouble with answering and/ or understanding a question, (for instance stayed silent for more than 10 seconds), the question was repeated and if necessary in another language (English, French, Italian being the three languages known by the researcher).

Immediately after the test, each child was asked about his/her languages. The researcher asked which language(s) he/she spoke and with whom, (with their neighbors, at school, during recess, at home, with the father, with the mother, brothers and sisters, with their grandparents, in their dreams).

Extensive information concerning the language learning experience of the children had been collected prior to the interview from the teachers.

Statistical methods

To test the hypothesis that LLE children would outperform nLLE children with respect to their communicative abilities in the test paradigm we calculated Z-scores. We used a contrast analysis (Fienberg, 1985; van den Bergh, 1990) to test the following hypotheses:

1. LLE children would be more inclined to answer the actor than nLLE children.
2. LLE children would be more aware of all contextual cues than nLLE children.
3. LLE children would be less inclined to give up the exchange than nLLE children.

Finally, in an attempt to explain the difference in communicative awareness between LLE and nLLE children we examined the differences between the children's reactions to the sound versus their reaction to the silent version.

In contrast analysis, different cells in a crosstable can be compared using a priori contrasts. The resulting testing statistic is a z-score.

RESULTS

First, to clarify the characterization of the answers, we present examples provided by the participants for each of the three questions of the researcher. Each of these examples is then classified in a table (2). Results classified are consecutively analyzed and in the second section the results of our statistical analysis is presented. Each outcome measure is illustrated through a figure (respectively 1, 2, or 3).

Examples of selected answers

The examples presented are extracted from the interview. They are meant to illustrate the answers to the related question.

The children were interviewed in the language that they preferred according to the languages known by the researcher. A switch of language initiated by the examiner could occur when lack of spontaneity was detected, such as expressed through hesitations, silences, or a switch of language initiated by the child. For this reason, some of the interviews were conducted in more than one language (English, French or Italian).

For each question, two answers of each child's answers are presented, corresponding to the sound and to the silent version and followed by an analysis.

Each answer is then classified and presented in appendix 1.

1. Answers to the first question:

What would you answer her/him? (appendix 1 and figure 1)

Example 2

Thomas, nLLE, first version (silent)

Child: Non, je veux pas.

[No, I don't want to].

Researcher: Pourquoi pas?

[Why not?]

Child: Je sais pas qui c'est.

[I don't know who she is?]

Second version (sound):

Child: Pas encore. [Not yet.]

Researcher: Pourquoi pas encore? [Why not yet?]

Child: Je sais pas encore qui c'est son nom. [I don't know what her name is yet.]

Example 1

Sebastian, nLLE, first version (sound)

Researcher: Qu'est ce que tu lui répondrais? [What would you answer her?]

Child: Je sais pas. [I don't know.]

R: Tu sais pas? [You don't know?]

C: Non. [no]

Second version (silent):

Child: [inaudible] She speaks **so quietly**, I guess whether she speaks the same [...] as me.

Researcher: What would you answer her?

C: Ya.

R: What do you want to say?

C: NO!

We first review and analyze the answers of two nLLE children and two LLE children separately. Subsequently, we compare the LLE versus the nLLE answers.

Analysis examples 1 and 2

Both children are bilingual and exposed to English and French from their parents since birth. They are classified nLLE. After having watched the first version, they claim not to be able to answer. Thomas argues that this is due to the fact that he doesn't know the actor. The redundant questions

of the researcher do not have any effect on them. The situation seems to be blocked.

However, the second time, Sebastian (example 1) first makes some comments about the absence of sound and he appears not to be fully aware of the fact that the movie that he just saw was completely silent. He first describes what he thinks he heard and he develops a hypothesis that relates the absence of sound to the foreign language. Despite the fact that the version he just heard is silent, he wonders if he shares his languages with the actor. He looks for an explanation which would justify the fact that he did not understand the words.

The child's comments are expressing his focus of attention on the linguistic cues of the message ['I guess whether she speaks the same [...] as me'; 'I didn't hear her']. However the second time, he operates a change of cognitive attitude: he consents to answer and his answer shows that he understood the situation, using the contextual cues provided in the movie.

On the other hand, Thomas does not change his mind; he refuses to answer the actress and he claims that he cannot answer without knowing the name of his potential interlocutor.

Both children are nLLE.

Analysis example 3

Hayden is monolingual. Her family is English speaking and she has been raised in an English speaking environment. Since her fifth birthday, she learns French at school.

In this example, she appears to not even pay attention to the linguistic cues. She does not make a difference between the silent and the sound version. She is directly involved in the situation proposed in the movie and reacts to it. She feels free to let us know her feelings, tastes...

Example 3

Hayden, LLE, first version (sound)

Researcher: What would you answer her?

Child: I just like everything, and I like my mum and my daddy, and I like my baby and I like my sister.

Second version (silent)

Researcher: What would you answer this woman?

Child: Yes. She eats, she is saying, we eat bananas everyday and we like them. I don't like them because I don't like them.

R: What don't you like?

C: I don't like bananas or grand beans.

In summary, the LLE child answers the actor the first and the second time without expressing any difficulties, while the nLLE children are more inclined to refuse to answer.

Sebastian responds the second time. But it is interesting to note that his answer ['NO!'] may express rather a rupture of communication than the desire to initiate an exchange.

2. Answers to the second question: What did you see in the movie?

A classification is shown in appendix 1.

Analysis example 4

Kayla, nLLE, has an English speaking father and a French speaking mother. Consequently, she is in contact with both languages since birth. Like the other children, she is enrolled in the French International School.

In this example after seeing the first version, she designed the referent and the referee but did not link them together; she mentions a woman and apples.

After the second version (silent), she does not show a more integrated view of the situation ['oranges']. She does not give any description of the expressive function of the message.

Example 4

Kayla, nLLE, first version (silent)

Researcher: Qu' est ce que tu as vu sur le film? [What did you see in the movie?]

Child: Une dame, des pommes. [A woman, apples]

Second version (sound)

Researcher: Qu' est ce que tu as vu sur le film? [What did you see in the movie?]

Child: Des oranges. [Oranges].

Example 5

Myel, LLE, first version, sound

Child: Hum, she gets ready to eat something?

Second version, silent

Child: I saw her give a little drink, some water.

Analysis example 5

Myel's parents are both English speaking. She is LLE. She started to learn French at the French International School when she was five years old.

To the first version, Myel sees the action but hesitates about the finality of the act [she gets ready to eat

something?]. While after the second version, she points out the conative function of the message (in that situation, the act of offering something to somebody).

In fact, the second time, she refers to the actor who makes a request as revealed by the intonation and the movement of offering water to the camera. In sum, her reasoning clearly progresses during the interview until she is able to have an integrated view of the communicative situation which includes the act of giving water to the camera. In contrast Kayla, nLLE, only mentions the referee both times.

To sum up, again, we observe that the LLE child is not only able to describe more of the situation than the nLLE but she is also more easily inclined to modify her thoughts.

3. Answers to the third question:

Did you understand? How did you do that, to understand?

This question is probably the one which is the most difficult to answer given the high degree of (meta) communicative awareness that it necessitates. To answer that question adequately children had to be aware of the exolingual and of the silent situations of communication.

Example 6

Vance, nLLE, first version, sound

Researcher: Did you understand?

Child: Understand what? What she was saying? I understand words but if you can't hear something you can't understand!

Second version, silent

Researcher: How did you do that, to understand?

Child: I saw her moving.

R: Thank you!

Furthermore, they had to reflect on what strategies they had used to understand the situation, e.g. to point out the contextual cues.

Thus, this task required an awareness of the process of how he/she had solved the problem. It necessitates a high degree of metacognition. To illustrate the answer to that question we present two nLLE children and two LLE. We analyze the answers and compare nLLE versus LLE answers.

Analyses examples 6 and 7:

Vance's mother is French speaking and his father is English speaking.

Maxime's parents are both French speaking but the family immigrated to

America when he was two. By the age of two and a half he entered an English speaking daycare. Both are nLLE.

In the first example, Vance is pointing out the apparent contradiction between the exolingual situation of communication and the question of the researcher: he is asked to react to a question he did not exactly understand while what he knows about communication is that a usual interaction is filled in with words which carry the meaning of the message.

In the movie the exolingual interaction forces the child to elaborate an argumentation. [ex.6: Understand what? What she was saying? I understand words but if you can't hear something you can't understand!].

Example 7

Maxime, nLLE, first version, silent

Researcher: Tu as compris?
[Did you understand ?]

Child: Non. [No.]

Second version, sound

Researcher: Tu as compris
alors. [So, you understood.]

Child: Oui. [Yes]

R: Comment tu as fait pour
comprendre? [How did you
do that, to understand ?]

C: Parce que. [Because]

First of all, he establishes a statement claiming his incapacity to solve the problem given the foreign language: I did not understand the words so I cannot answer. This statement is coupled with a feeling of personal displeasure as revealed by the intonation, the short sentences, and the justification that he gives.

To the first version, he argues that he cannot hear, a statement which seems contradictory given the fact that Vance refers to the sound version. His declaration reveals his effort to concentrate his attention on the linguistic cues, irrelevant strategy due to the fact that the language is unknown to the children. After the second version, Vance does not see the problem as an obstacle to understanding the situation anymore. He agrees to consider the situation and he discovers that although the semiotic cues of the verbal message are not understandable, he understands. This change of cognitive state is paired with the fact that the second time, he accepts to answer the actor.

Apparently, the production of arguments sustaining his point of view pushes him to restructure his background knowledge about the mentioned problem.

This process has been described as a 'self-explanation effect' by Chi, Bassok, Lewis, Reimann, and Glaser (1989). The production of arguments is generated by an intense negotiation of the meaning of the referents. The negotiation is first initiated by the pressure of the interaction which is introduced by the question: 'What would you answer him/her?' It results in new knowledge elaborated by the combination of solutions.

As opposed to Vance's reaction, Maxime (example 7, nLLE) declares after the first version that he did not understand. Interestingly, after the second version he realizes that he understood but he is not yet ready to look for a plausible explanation.

Analysis example 8 and 9

Sofia is bilingual learning a third language, classified LLE. Her mother is Spanish speaking and her father French speaking. She mostly talks Spanish with her family (grand-parents included) and grew up with Spanish speaking baby-sitters. By the age of four, she entered the French International School.

Her reasoning testifies of a particularly well-developed awareness of what an exolingual interaction is and how it works. She talked the whole time in French on a monochord tone and without interruption.

Example 8

**Sofia, second version,
sound**

Researcher : Comment tu as fait pour comprendre ?

[How did you do that, to understand?]

Child: J'ai bien écouté comme elle parlait même si je savais même pas c'était difficile de comprendre, c'était un langage je savais même pas ce qu'elle disait mais j'ai écouté bien ce qu'elle disait. J'ai regardé et j'ai vu qu'elle m'offrait à moi un verre d'eau alors j'ai compris.

[I listened carefully how she talked even if I did not even know it was difficult to understand, it was a language I did not even know what she said but I listened carefully. I watched and I saw that she was offering me a glass of water so I understood.]

Example 8

**Sofia, LLE, first version,
silent**

Researcher: Comment tu as fait pour la comprendre?

[How did you do that, to understand?]

Child: J'ai vu qu'elle faisait les gestes avec la bouche et pour parler, je comprenais qu'elle parlait quand elle faisait ça avec la bouche. Je comprenais ce qu'elle disait elle faisait les gestes comme [*elle montre*] j'ai compris.

[I saw that she was making some gesture with her mouth to talk, and I understood that she was talking when she was doing like that with the mouth. I understood what she said she made the gesture like [*she shows*] I understood.]

For both versions she is aware of the problems that need to be solved (silence and exolingual situations) and analyzes all cues related to them. She does not mix them up as the other children did. When there was sound, she listened 'carefully' and when the situation was silent she watched.

She demonstrated an integrated comprehension of the communicative exchange which is revealed by her explanation: 'I saw that she was offering ME a glass of water,[...]'. Her comprehension of the situation was so clearly detailed that the researcher omitted to ask her whether she

understood or not. Thus, in both versions (sound and silent) her reasoning was considered adequate and indicative of sufficient understanding of the situations.

Mickael is monolingual learning French as a second language, classified LLE.

Just like Sofia, Mickael makes a clear difference between the silent and the sound version. This is shown by the fact that he mentions 'listening' when explaining his understanding of the sound version while for the silent version he 'paid attention' and 'looked' at the actor.

Just before in the interview reacting to the sound version he mentioned: 'I don't understand what she said. She speaks a different language.' However, to the question whether he understood or not, he answered that he understood.

With those four examples illustrating the last question, it is easier to understand how a better awareness of (meta) communication may produce a stronger inclination to communicate. The LLE children not only appear to be more aware of the situation than the two nLLE children but they are also more inclined to cooperate.

Example 9

Mickael, LLE, first version, silent

Researcher : Did you understand?

Child : Oui. [Yes].

R: How did you do that, to understand?

C: I was looking at him and I paid attention.

Second version, sound

Researcher : Did you understand?

Child : Oui. [Yes].

Researcher : How did you do that, to understand ?

Child: I was paying attention and I was listening to what she said.

Statistical analyses

1. Answer to the first question: What would you answer him/her?

To answer the first question, we compared the proportions of those who answered to the actor in the LLE group versus the nLLE group.

Figure 1. What would you answer her/him?

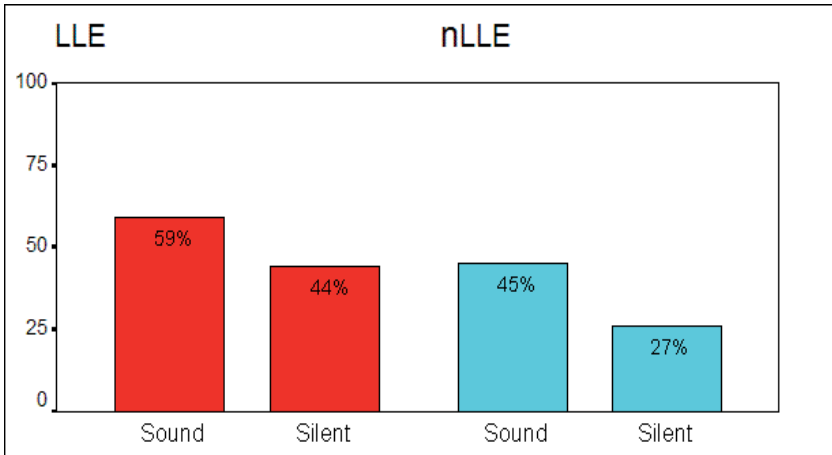


Figure 1 This diagram depicts the differences in the proportion of children who accepted to answer the actor (‘What would you answer her/him?’). The differences are expressed as percentages on the Y-axis. The bars in dark grey refer to the LLE children, the bars in light grey to the nLLE children. In each group (LLE and nLLE), the with sound and silent versions are provided separately.

Overall, children of the nLLE group were less willing to answer than LLE children, ($z = 2.376$; $p = 0.016$). However, there was no significant difference between the two versions (silent versus with sound) with regard to the child’s willingness to answer ($z = .453$; $p = 0.64$). LLE-children were more willing to answer in both the silent condition ($z = 2.361$; $p = 0.018$), and the sound condition ($z = 2.688$; $p = 0.006$).

Table 2. Number of children willing to answer broken down by LLE/nLLE in the two conditions

	Willingness to answer			
	Silent		Sound	
	No	Yes	No	Yes
LLE	18	14	13	19
nLLE	16	6	12	10

2. Answers to the second question:

What did you see in the movie?

Results of analyses (see fig. 2) to the second question show which of the contextual cues or the phonetic cues drew the children's attention. We classified the answers into three categories:

1. No answer / 'I do not know' answer.
2. Description of a part of the situation, (the referent and/or the addresser).
3. Integrated view of the situation.

The proportion of children that gave an answer which reflects an integrated view of the situation (category 3), that is of the recognition of both the actor giving the camera something and the naming of that object, was much larger in the LLE group than in the nLLE group, whereas the proportion of children that only pointed out part of the situation (category 2) was larger in the nLLE-group ($z=2.289$; $p=0.008$).

Neither the LLE-group nor the nLLE-group showed significant differences in reaction when shown the silent clip as opposed to the sound clip (respectively: ($z= 0.215$; $p= 0.83$; $z=0.322$; $p= 0.75$)).

Figure 2. What did you see in the movie?

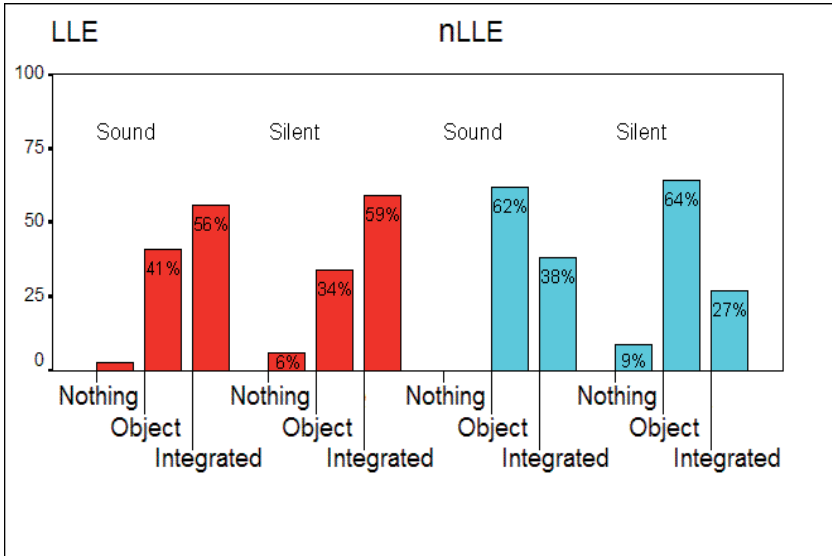


Figure 2 The bars in this diagram represent the three categories of answers to the question ‘What did you see in the movie?’. The three categories are respectively ‘nothing’ (no answer / ‘I do not know’), ‘Object’ (description of a part of the situation) and ‘integrated’ (the child’s answer represents an integrated view of the situation). For the LLE children the proportions within each category are presented in dark grey, for the nLLE children in light grey.

3. Answers to the third question: Did you understand? How did you do that, to understand?

Results of this analysis (see fig. 3) show the child’s level of awareness of the process and the strategies used to solve the exolingual/silent problem of communication.

Again, we classified the answers into three categories:

1. The child does not comment or says that he/she does not know.
2. The child tries to find an answer.
3. The child points out the silent and the exolingual situations of communication.

The outcome measure derived from the third question, (Did you understand? How did you do that, to understand?), is the only one that displays a clear difference between the silent and the sound version.

Figure 3. How did you do that, to understand?

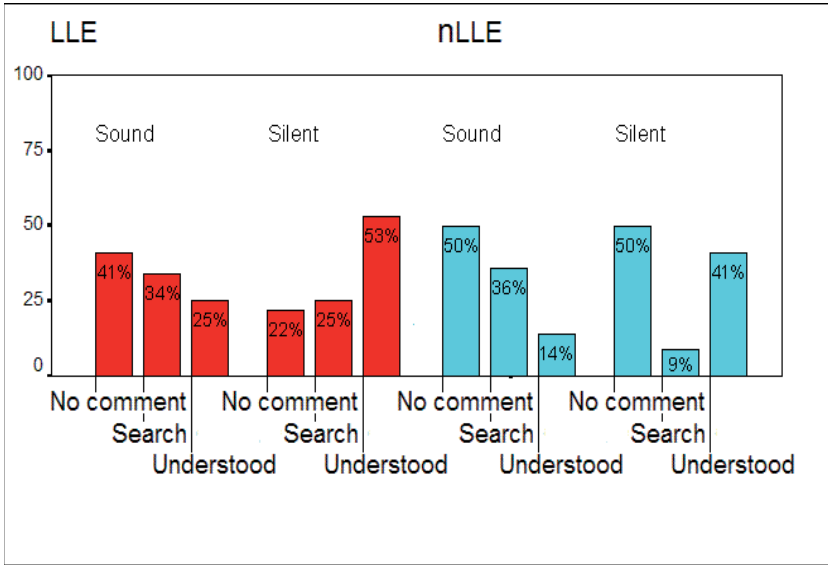


Figure 3 The bars in this diagram represent the three categories of answers to the question ‘How did you do that, to understand?’ The three categories are respectively, no comment, search (the child tries to find an answer) and, understood (the child points out the silent and the exolingual situations of communication). For the LLE group the proportions within each category are presented in dark grey, for the nLLE group in light grey.

Intragroup analyses LLE / nLLE

First the distribution of answers in the LLE and nLLE groups in the sound and silent version were analyzed.

Silent version:

A relatively large proportion of LLE children fully understood the situation (category 3) as compared to the proportions of LLE children

who tried to find an answer (category 2) or who did not make any comment (category 1) ($z= 2.314$; $p= 0.020$). For nLLE children, the distribution of answers appeared to be equal over the three categories in the silent version ($z= 0.98$; $p= 0.33$).

Sound version:

In the sound version no differences between answering categories could be shown for either LLE ($z=0.984$; $p=0.343$) or nLLE children ($z= 1.816$; $p= 0.068$).

Intragroup analyses LLE/ nLLE, sound versus silent version

Second, within each subgroup (LLE and nLLE) the distribution of answer categories was compared between the sound and the silent version. Although for LLE children no significant difference between the silent and the sound version could be shown ($z= 1.696$; $p= 0.088$), LLE children understood the silent version better than the sound version. In the nLLE group, however, the difference between the silent and the sound version proved significant. nLLE children were more inclined to try to find an answer in the sound version than to fully understand (pointing out to the silent/ exolingual situation of communication), while in the silent version a greater proportion of the nLLE children displayed a full understanding of the situation compared to nLLE children who tried to find an answer ($z= 2.403$; $p= 0.016$).

Intergroup analyses LLE versus nLLE

Differences between the two groups (nLLE versus LLE children) appeared in the silent version in the proportion of children trying to find an answer (category 2) when children who did not comment or did not know (category 1) were compared to children who tried to find an explanation ($z= 1.984$; $p= 0.046$).

The proportion of children that did not give any comment was much higher in the nLLE group than in the LLE group. This difference was significant (silent version, $z= 4.091$ $p < 0.001$).

Inter-rater agreement

All movie-clips were rated by two independent raters.

In the majority of responses there was a clear correspondence between raters ($k=0.72$; $se=0.041$; $p < 0.001$).

CONCLUSION

This study demonstrates that regardless of the used outcome measure, LLE children outperformed nLLE children:

1. LLE children were more inclined to answer the actor, (see fig. 1).
2. LLE children were more aware of all contextual cues in both sound and silent situations of communication, (see fig. 2).
3. LLE children were less inclined to give up the exchange than nLLE children, (see fig. 3).

In the literature, multilingualism is usually considered as an advantage in the communicative awareness (as cited by Gass & Selinker, 2008: 28). Hence, in most linguistic studies communicative abilities are compared between multilingual and monolingual children, thereby assuming a certain level of homogeneity within these groups.

However, for young children this last assumption is questionable, since other factors, such as LLE versus nLLE, can significantly affect the level of metacognitive awareness.

Results of the present study support the notion of the relevant role of LLE in enhancing metacommunicative awareness as well as metacognitive awareness. As related to the specific experience of learning a new language, the involvement of LLE in the development of metacognitive awareness diminishes the role traditionally accorded to multilingualism per se. This greater level of metacognitive awareness implies the reception/ interpretation of the communicative exchange (input) as well as the treatment of the information (output).

LLE children were more inclined:

1. to restructure their knowledge according to the contextual cues.
2. to look for a compromise between all cues and the meaning of the exchange.
3. to dissociate the different notions (silent version or foreign language input).

Some attempts have been made to describe different levels of metacognitive awareness. In 1989, Swartz and Perkins described four levels scaling from a tacit use (acting without being aware of it) to a reflective use (being aware of one's own thinking and being able to improve the efficiency of the strategic attitude).

In our study, the first (tacit) level can be illustrated by the children who tried to answer the actor without being aware of the silent or exolingual situation. Some children explained the fact that they understood the silent version by ‘using their ears’. A higher level, marked by the reflective use of the metacognitive awareness was fully illustrated by Sofia’s answer to the third question. She was perfectly aware of what she had done, and of why she had done it that way. She was not only able to perceive, to understand, and to react to the situation but she was also able to measure the effect of her strategic attitude.

In 1998, Fisher described three levels of children’s metacognition (respectively called ‘cognitive description’; ‘cognitive extension’ and ‘metacognitive thinking’) which can again in a certain way be related to our three outcome measures (the willingness to communicate, the perceived cues of the situation, and the metacognitive awareness questions 1, 2, 3). Each of these levels proved to be globally more enhanced in LLE children than in nLLE children (see fig. 1, 2, and 3). Fischer (1998) agreed with Swarts and Perkins (1989) in presuming the third level to be the highest. The self-reflective awareness of one’s own thinking processes which is the hallmark of the highest level of metacognition is illustrated in our test by the question: ‘How did you do that, to understand?’

According to these classifications, results of the current study showed that compared to nLLE, LLE children displayed an enhanced metacognitive awareness.

They interpreted the communication problem more effectively (fig. 2 and 3) and they overcame the problem more easily. This was translated by a stronger inclination to communicate (fig. 1). More precisely, they had a fuller understanding of the situation. For instance, the fact that Mickael (example 8, monolingual in the process of learning French at school, classified LLE) explicitly mentioned his effort to ‘pay attention to’ the situation as a whole, could suggest that following Krashen’s distinction between learning and acquisition (Krashen, 1981), a language learning experience possibly induces an awareness of the situation of communication which may allow the learner to understand the message conveyed beyond the spoken language.

As mentioned above in Mickael’s case it included a full understanding of the exolingual and of the silent situations. He was also able to exclude irrelevant elements like the absence of sound or the foreign language and to catch up with the meaning guided by other contextual cues.

However, our results do not support our second, explanatory hypothesis, in which we anticipated a difference between the sound and silent versions of the movie as a result of an interference of the audible foreign language. Except for the third outcome measure (see fig. 3), there was no significant difference when comparing the children's reactions to the silent and the sound versions of the movie clip. We anticipated that the underperformance of nLLE children could be related to their tendency to be more bothered by the sound version than by the silent version. Results did not confirm this hypothesis.

DISCUSSION

With regard to the observed metacommunicative advantage of LLE children, we speculate that the exposure to an exolingual situation of communication, such as in the current study test paradigm, generates in LLE children, but not in nLLE children, an awareness of metacommunication.

Given that LLE implies previous conscious and guided experiences of exposure to a foreign language, we speculate that precisely this conscious Language Learning Experience is a major factor leading to the observed metacommunicative advantage of LLE children.

Plausibly, this experience allows children with LLE to be more able to identify themselves with the exolingual situation. They recognize the communication problem in the test paradigm more easily and are therefore better equipped and more inclined to look for solutions. Since Van Lier (1996) already suggested that one can only solve a problem if he/she is aware of its existence, we may see LLE as a potential provider of an increased awareness of the problems associated with exolingual communication.

According to Wells 'collaborative activity is both the setting and the motivator for the interactions through which learning and development occur' (2002:3). In the same line of reasoning, we can speculate that through the presence of a teacher and the guided exposure to an exolingual situation of communication, multilingual children may be able to learn to understand and to react more adequately to an exolingual situation of communication.

In 2001, Bialystok claimed that the increased need of interpersonal comprehension due to the necessary adaptation to language switch should result in an increased communicative competence and cognitive abilities of young multilingual children (Bialystok, 2001) implicitly linking the notions of competence and of awareness.

Our results seem to add a condition to that claim: this necessary adaptation seems to operate more adequately when a child has been or is exposed to a conscious Language Learning Experience.

We believe that we have established that the context of learning determines the evolution of the plurilingual competence profile and that the presence or absence of LLE enlarges the notion of multilingualism as a competence in construction which depends on many more factors than a natural exposure to two or more languages.

One may say that the current policies of stimulating early language exposure are advantageous, but not for the reasons that are generally assumed. Results of the current study clearly demonstrate that LLE children are more proficient than nLLE children in understanding, treating and solving an exolingual communication problem. It suggests once more that the group of multilingual children may be far less homogeneous than is generally assumed at least with regard to the communicative competence.

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CHAPTER 3

EFFECT OF LEARNING A NEW LANGUAGE ON CHILDREN'S WILLINGNESS TO COMMUNICATE

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ABSTRACT

The present study was set up to evaluate to what extent multilingual study groups can be considered homogeneous. A series of interviews were conducted to investigate the metacommunicative awareness of 101 children. We compared children who have learned an additional language in a formal context (abbreviated LLE, i.e. Language Learning Experience) to those who have not (abbreviated nLLE, i.e. without a Language Learning Experience). The primary outcome measure consisted of the reactions to an imaginary situation of communication. The results of the current study suggest that LLE children were more inclined to carry out the exchange than the nLLE children. Studying the same outcome measure, no such difference was identified when comparing monolingual to multilingual children. These findings indicate that with regard to the present tasks, the presence or absence of LLE may be a more relevant factor than mono- or multilingualism.

Introduction

Studies concerned with multilingualism often point out differences between monolingual and multilingual children. In most of these studies the reported metacognitive advantages associated to multilingualism are attributed to an enhanced metalinguistic awareness in bilingual children as opposed to monolingual children.

Our study was set up to address the role of the conscious experience of learning a new language in a formal context with regard to children's metacognitive development.

Metacognition and multilingualism

Metacognition is an important factor in the improvement of learning abilities and its development is crucial in education (Fernandez-Duque, Baird & Posner, 2000). Metacognition includes the presence of knowledge, awareness and control of strategies (see Moses & Baird, 1999; Biggs & Moore, 1993).

Studies of multilingualism have embraced insights in the role of metacognition in children's linguistic development. In 1989, McLaughlin and Nayak depicted one of its components, the metalinguistic awareness, as a capacity that distinguishes the expert learners from the novice learners. The expert learner was supposed to be somebody who had learned how to learn (see for instance, McLaughlin & Nayak, 1989; Malakoff, 1992; Cook, 1993; Jessner, 1999; Herdina & Jessner, 2002).

Multilingual versus monolingual

To date, many researchers have compared multilingual groups of children to monolingual groups under the assumption that the knowledge of more than one language may enhance metacognition through the development of some aspects of metalinguistic awareness (e.g. Rubin & Turner, 1989; Yelland, Pollard, & Mercuri, 1993; Merriman & Kutlesic, 1993; Klein, 1995; Francis, 1999; Lasagabaster, 2001, Jessner, 2008).

Indeed in early studies, bilingual children proved to display more metacognitive awareness as compared to their monolingual peers (for a review Cenoz & Jessner, 2000). However some studies noticed a disappearance of the initial metalinguistic advantages of bilingual

children (phonological awareness) when the children approached the end of first grade (Campbell & Sais, 1995; Yelland et al., 1993; Bruck & Genesee, 1995).

Furthermore, in more recent studies multilingual children did not always display more metalinguistic advantages than monolingual children. For instance, Bialystok (Bialystok, 2001; Bialystok, Majumder & Martin, 2003) investigated possible positive effects of bilingualism on metalinguistic awareness in young children, focusing on phonological awareness (word and syntactic awareness). She found significant similarities and differences in the metalinguistic performances between monolingual and bilingual groups of children, however, not always to the advantage of bilingual children. She concluded that bilingualism per se does not enhance the development of phonological awareness with respect to her test paradigm. Therefore she suggested the influence of other factors on the performance of the observed groups of participants. In other words, she concluded that multilingualism may not be the (only) source of the observed differences in metalinguistic awareness (Bialystok et al., 2003).

Factors of influence

One way to improve the accuracy of the research in the study of multilingualism is to increase our insight into other factors within monolingual populations which influence children's metacognitive awareness, thus causing certain heterogeneity in the multilingual population. Once identified, future studies can take into account these factors in order to increase the reliability of their results.

One potentially relevant factor of influence of the metacognitive development of children may be the context in which a new language is acquired/ learned. This notion is supported among others by Rolstad, (1997) and Rubin and Turner (1989). Rolstad's results showed that children's metalinguistic and interactional skills were influenced positively by the experience of learning a language in a formal context. Moreover, Rubin and Turner (1989) noticed better performances in metalinguistic tasks by children exposed to bilingualism through recent schooling in an immersion program when compared to bilingual children involved in monolingual programs.

Results of the studies cited above suggest the possible influence of formal education as a relevant factor in the study of children's metacognitive

development. The context in which the languages have been learned/acquired could explain some of the differences observed in the metacognitive development of the studied populations.

The current study

The current study is set up to examine the role of the experience of learning a new language in a formal versus informal context (abbreviated LLE and nLLE respectively, i.e. with Language Learning Experience versus without Language Learning Experience).

We propose that LLE contributes to the observed heterogeneity in metacognitive abilities in multilingual children because of its influence on the development of metacognitive awareness. More specifically, we propose that the experience of learning a new language in a formal context might be a more relevant factor for the development of certain aspects of metacognitive awareness in young children than multilingualism *per se*.

Based on the definitions of metacognition cited above, metacommunicative awareness was conceptualized as a set of abilities. These abilities involve the awareness of and the control over communication variables, in other words, the ability to think of communication beyond the linguistic level as well as the capacity to contemplate different strategies to carry out an exchange.

Conceptual framework

The exolingual situation of communication

We placed the children in situations of communication in which interlocutors do not share the same languages. Those situations were verbally presented in an individual interview. Children's reactions were then registered for subsequent analysis. Results presented here concern the answers to the following and last question of the questionnaire: 'Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?'

We qualified that situation as exolingual. This term has been introduced by Porquier in 1979. According to Alber and Py (1985: 3), it can be defined as 'all face to face verbal interactions characterized by significant differences in the linguistic repertoires of the participants to the exchange.'

In the present study the exolingual situation was extreme. Indeed participants were presented with an imaginary scenario in which they could not understand the language of their interlocutor. The intentional processes involved in the monitoring of the exchange were all considered as an indication of the presence of the subject's metacommunicative awareness.

Learning versus acquisition context

A potentially relevant differentiating factor could be whether a second or third language is acquired in a natural context and before the age of four (spontaneous acquisition) or alternatively in a formal setting and after the age of four (a conscious learning context).

We propose that LLE (i.e. formal instruction of a foreign language after the age of four) generates a language learning experience.

As stated above, we hypothesized that this experience might be a more relevant factor for the development of metacommunicative awareness in young children than multilingualism *per se*.

Research methods

Setting and participants

The metacommunicative awareness of 101 children, ($n=101$, mean age: 6.7; SD : 1.9; girls: 47%) aged four to eleven years was evaluated. Given the inequality in the developmental stage of the linguistic competences of the children, the test was designed so that the children's performances could be evaluated regardless of their acquired linguistic abilities.

The data were collected in three different countries between April 2004 and September 2005. Different locations were included to allow first a comparison between and then, a generalisation over countries. In all three countries the comparable immersion systems and the same main teaching language (French) were used.

The schools were frequented by French native speakers, English native speakers, bilingual children of both languages and native speakers of diverse other languages (a.o. Dutch for the Netherlands and Swiss-German for Switzerland).

In all three locations the interview was administrated by the same researcher with similar test conditions. In the Netherlands (Amsterdam), we observed 28 children aged seven to eleven (mean age= 9,4); in Switzerland (Zurich) 19 participants between five and six years of age were included (mean age= 5,5); in The United States of America (Philadelphia) 54 children were selected between the ages of four and six years old (pre- kindergarten and kindergarten, mean age= 5,5).

Participants were tested during school time. They were not instructed prior to the test, apart from being told by the teacher that they were going to play with an adult. Before starting the researcher instructed each subject that there were no wrong answers to the tasks. Sessions were digitally recorded and transcribed for the purpose of subsequent analyses.

Participants were asked to react to problematic situations of communication which were set up to help the children to externalize their thoughts about it, (think aloud protocols).

The interview consisted of tasks tapping into exolingual situations of communication (Le Pichon, De Swart, Ceginskas, van den Bergh, 2009; Le Pichon, 2006). Each child was asked about his/her languages. Then,

we gathered a detailed linguistic history of each child for each language using open-ended questions to investigate the child's language learning experiences with regard to variety and types of contexts of acquisition.

The results that we obtained included the proportion of input for each language with regard to the context of use, (where, with whom). That is the social context of language acquisition (communication situations or events), the nature of the family language related history (moving, before the birth, after, mixed families), and the perception that the child had of his/her languages and the timing or order of acquisition. The latter allowed us to make a distinction between simultaneous and sequential acquisition (Mc Laughlin, 1978; Lambert, 1974).

This distinction may be highly relevant with regard to verbal willingness to communicate (Le Pichon et al., 2009).

Extensive information concerning the language learning experience of the children had been collected prior to the interview from the teachers. Finally the interview ended up with the task reported in the current paper, i.g. "Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?"

Total interview time did not exceed thirteen minutes per child. The children's responses were welcomed with expressions like "good job", "how smart of you"... At the end of the interview, all participants were rewarded with a sticker.

Test administration

Children were observed taking into account a precise description of the linguistic curriculum of each child and in which circumstances they had acquired their languages, also named 'language biographical' approach, (Franceschini, Zappatore, Lüdi, Radu, Wattendorf & Nitsch, 2001). As mentioned above, information about the language repertoire was provided by the teacher in a questionnaire before the enquiry and by the children during the inquiry.

Children were considered as 'nLLE' i.e. without formal Language Learning Experience when they had not been exposed to a new language in a formal context (school) from the age of four and onwards. Children were considered as 'LLE' when they had been exposed to a new language

in a formal setting from the age of four and onwards. Importantly, this distinction was considered more central than the actual degree to which the linguistic knowledge was developed. In other words, if a new language had been introduced, the age of introduction was taken into consideration as was the setting (formal or informal).

Accordingly, all the nLLE participants (n=29) were bilingual (55% girls). The LLE participants (n=72; 52% girls) consisted of monolinguals (n=44) and bilinguals (n=28), all of which were in the process of learning or had learned a second/third language in a formal setting. Based on the responses of the children the following outcome measure was blindly analyzed: whether or not participants attempted to communicate (categorical variable).

Interrater reliability

In order to increase the objectivity of the classification, responses of all children were categorized by two independent raters. The k statistic was calculated to assess the level of agreement between raters (interrater reliability). A high level of agreement (91%) was observed between raters, ($k= 0.83$; $se= 0.09$; $p < 0.001$).

Statistical methods

For every child, we sought to evaluate the level of willingness to carry out the exchange. It was determined by the outcome of the imaginary playful interaction. Success or failure of the interactions was not evaluated based on the type of strategy used, but rather on the level of determination in the willingness to communicate, i.e. the outcome of the play date.

Do the children choose to continue the (playful) interaction or do they renounce their determination to the play date? If yes, the child was considered as willing to communicate (he/she received a 1). If not he/she was classified accordingly (he/she received a 0).

All statistical analyses were conducted with SPSS version 11.5 statistical software. Because there was variation of the mean age between the three countries, the relation between willingness to communicate and age was analysed.

For both the LLE and nLLE subgroups, the willingness to communicate increases with age ($\beta = 0.37$; $se = 0.015$; $p = 0.019$). However this relation does not vary between LLE and nLLE children ($\beta = 0.18$; $se = 0.17$; $p = 0.27$), nor between countries ($z \leq 0.36$; $p \geq 0.55$).

Based on these results we concluded that the relation between willingness to communicate and LLE/nLLE can be generalized over countries and analyses for each country separately are unnecessary.

The influence of LLE (versus nLLE) and country on willingness to communicate was analyzed by means of a logit model. The goal of the analysis is to identify the model which fits best to the data and which has as few parameters as possible. The fit of a model to the observed data is expressed in a χ^2 testing statistic. Two different (nested) models can be compared as the difference in fit between these models is χ^2 distributed as well. In table 1 the testing statistics for four competing models are presented.

Table 1: Four models to estimate the influence of nLLE and country on the willingness to communicate

Models	Fit			Comparison			
	χ^2	<i>df</i>	<i>p</i>	Models	χ^2	<i>df</i>	<i>p</i>
1. Constant	12.85	5	.03	1 vs 2	7.25	1	.007
2. Constant + (n)LLE	5.59	4	.20	2 vs 3	4.88	2	.09
3. Constant + (n)LLE + country	0.71	2	.70	3 vs 4	0.71	2	.70
4. Constant + (n)LLE + country + (n)LLE * country	0	0					

In the first model it is assumed that there is neither an effect of country or LLE/nLLE. Hence it is assumed that the frequency of students willing to communicate is proportionally equal. This model fits poorly to the observed data ($\chi^2 = 12.85$; $df = 5$; $p = 0.03$).

In the second model an effect of LLE/nLLE is added. This results fits to the data much better ($\chi^2 = 5.59$; $df = 4$; $p = 0.20$). The difference with the previous model is significant as well ($\chi^2 = 7.25$; $df = 1$; $p = 0.007$).

Therefore LLE/nLLE has an influence on the willingness to communicate. LLE children are more willing to communicate than nLLE children.

In the third and fourth models effects of country and the interaction between nLLE and country were added respectively. This does not result in an increase of fit ($\chi^2 = 4.88$; $df = 2$; $p = 0.09$ and $\chi^2 = .071$; $df = 2$; $p = 0.70$ respectively). Therefore, neither country nor the interaction between country and LLE/nLLE explain differences in willingness to communicate.

To conclude data only show an effect of LLE.

Given the equal repartition of proportion of children willing to communicate between countries taking the LLE/nLLE variable into account, data were combined. Thus, in total, 101 participants aged four to eleven years, were included in the final analyses.

LLE children were slightly older than nLLE (mean age LLE: 6.92, SD: 2.04; mean age nLLE: 6.08, SD: 1.57).

Subgroups

Two divisions of the study sample were made for two separate comparisons.

First, the sample was divided in a traditional way into monolingual and multilingual children.

Second, the study sample was divided again into a subgroup LLE and a subgroup nLLE.

Types of multilingualism, genders and ages were carefully described.

Results

Monolingual versus multilingual, LLE versus nLLE

Comparing monolingual ($n= 44$) with multilingual ($n= 57$) children, we found that 77% of the monolingual participants attempted to communicate while 66% of the multilingual children attempted to do so. This difference is not significant ($\chi^2= 1.09$; $df= 1$; $p= 0.3$).

In contrast, when comparing LLE ($n= 72$) to nLLE participants ($n= 29$), the difference was significant; 79% of the LLE children attempted to communicate in comparison with 52% of the nLLE children ($\chi^2 = 7.61$; $df= 1$; $p < 0.01$).

Figure 1: Percentage of the children willing to communicate for monolingual versus multilingual groups

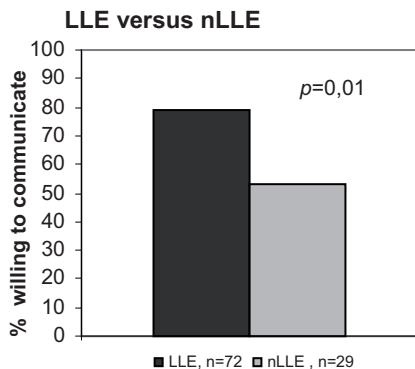
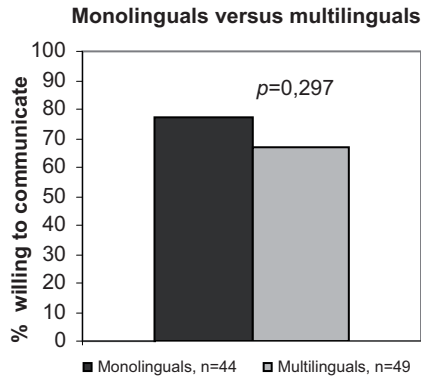


Figure 2: Percentage of the children willing to communicate for LLE versus nLLE groups.

Illustration of the results

To exemplify the children's answers and the classification LLE versus nLLE, five examples of answers out of the 101 are reported here and analyzed. All other children's answers were similarly classified.

Child 1 (LLE): "I try to learn what he is saying. When I get the hang of it, I speak just like him!"

Child 2 (nLLE): "Je lui parle en espagnol, en arabe. Je sais pas. Je joue pas avec elle." ["I speak Spanish to her, Arabic. I don't know. I don't play with her."]

Child 3 (LLE): "Est-ce que il parle Italien ? Est-ce que il parle Espagnol ? Polonais ? Il parle rien. Je vais lui apprendre une langue." ["Does he speak Italian? Does he speak Spanish? Polish? He doesn't speak anything. I'm going to teach him a language."]

Child 4 (nLLE): "Je lui demande si il parle français. S'il parle anglais. Si il parle espagnol. Si il peut parler italien. Si il peut parler comme en Suisse. Je sors du parc." ["I ask him if he speaks French. If he speaks English. If he speaks Spanish. If he can speak Italian. If he can speak like in Switzerland. I leave the park."]

Child 5 (nLLE): "Si je sais la langue, je dis. Je sais pas. Je vais jouer avec elle. Je vais lui montrer." ["If I know the language, I say. I don't know. I'm going to play with her. I'm going to show her."]

Analysis of the five examples of answers reported above. First the classification LLE- nLLE is described followed by the analysis of the willingness to communicate.

Classification LLE- nLLE

All five children were involved in a French (International) School. Child 1 is a six year old boy. He speaks English at home with his parents and started to learn French at school at the age of five and a half. He is considered as monolingual in the process of learning a new language with LLE.

Child 2 is a six year old girl. She speaks French at home with her parents and has been living in America since she was two years and six months old. She attended an English speaking daycare two mornings a week when she was two years and ten months old and had daily contacts with her English speaking neighbour. She is bilingual considered as nLLE.

Child 3 is a four year and four month old boy. His mother is French and his father is German. They moved to America from Germany five months before the interview. He is bilingual and in the process of learning English at school as a third language. He is considered as LLE.

Child 4 is a four year and 5 month old boy. He speaks French at home and learned English while attending the daycare when he was two. He is bilingual classified as nLLE.

Child 5 is a six year old girl. She speaks mostly English at home. But sometimes, she speaks French with her father since she was raised speaking French and her father's relatives are French speakers. She is bilingual classified as nLLE.

The willingness to communicate

Child 1 (LLE) clearly wants to communicate and does not seem to feel anything negative about it. As opposed to it, child 2 (nLLE) reports that she tries to carry out the exchange but gives up. Accordingly, child 1 met our criteria for willingness to communicate while child 2 did not meet those criteria.

In the examples 3, 4, and 5, all four children initially show a willingness to communicate but child 4 chose to give up the exchange. Consequently, children 3 (LLE) and 5 (nLLE) met the criteria for willingness to communicate while child 4 (nLLE) failed to meet these criteria.

Conclusion and discussion

Results of the current study show that nLLE children are more likely to disengage from an exolingual situation of communication, regardless of the number of languages already acquired and regardless of their age. These findings may also challenge the claim that multilingual children would present a more developed interactional competence (Cenoz & Jessner, 2000: 48, Genesee, Tucker & Lambert, 1975; Jessner, 1997; Jorda, 2005), which would remain unaffected in multilinguals exposed to new situations, environments and perceptions (Hoffmann, 2001).

Our results suggest that LLE significantly enhances the metacommunicative awareness of both multilingual and monolingual children more than multilingualism *per se*.

Our results are in line with the hypothesis and with our precedent findings (Le Pichon et al., 2009); namely that LLE may be a relevant factor of heterogeneity within the multilingual groups. In fact it may be even more important than multilingualism *per se*.

They show that it is not the comparison between monolingual and multilingual groups, but the comparison based on the presence or absence of a formal language learning experience (LLE versus nLLE) that generates significant differences in the outcomes of this study.

The findings support the notion that inconsistent results of studies involving multilingual groups may be partly explained by other factors of influence, namely the context in which a language has been learned (LLE versus nLLE).

Our findings indicate that when studying the metacommunicative awareness development of the child, it is more relevant to compare LLE and nLLE children than multilingual and monolingual children.

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CHAPTER 4

HOW FOREIGN LANGUAGE LEARNING CAN AFFECT THE STRATEGIC COMPETENCE IN YOUNG CHILDREN

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ABSTRACT

The present study was set up to evaluate the extent to which the context in which a foreign language is learned can influence the strategic competence of children. To assess this we conducted a series of think aloud protocols with 101 children. We compared children who have learned an additional Language in a formal context (abbreviated LLE, i.e. Language Learning Experience) to those who have acquired two languages in a non-formal context and before the age of four (i.e. 'simultaneous bilingual' children, abbreviated nLLE, i.e. without a Language Learning Experience). The primary outcome measure consisted of the children's reactions to situations of communication in which the children could not understand the language. We hypothesized that LLE children would outperform nLLE children in their awareness of and willingness to use communicative strategies. We found that LLE children accessed more strategies and diversified their strategies more often. These findings are in line with our previous findings and indicate that LLE is a highly relevant factor when studying the strategic competence of children.

Introduction

Early foreign language course may influence strategic competence

As pointed out by Muñoz and colleagues (2006) regarding linguistic achievement in Foreign Language Learning context, there is little evidence to support significant benefits of early age exposure to a target language course over exposure at a later age. Nevertheless, numerous European countries have enthusiastically introduced a foreign language into the curriculum of the children as early as the beginning of preschool. Could it be that there are advantages other than the putative linguistic benefits associated with the widely accepted adoption of foreign language courses at a very young age? To date, there is no evidence in the literature to either support or refute this possibility.

The purpose of this study is to examine the possible benefits of an early age foreign language course in the realm of strategic competence.

We hypothesized that an exposure to a foreign language course in a school context, even with very little exposure to the target language, positively influences the child's strategic competence.

We further hypothesized that this effect does not occur in the context of a so called 'simultaneous' exposure.

We examined strategic aspects of the communicative competence of young plurilingual children in relation to the context of the language acquisition/learning.

In this paper, the term 'plurilingual' is used in a broad sense as opposed to the dichotomy of 'multilingual' versus 'monolingual'. This classification does not take into account the attained level of linguistic competence in each language. It refers to children, all having been exposed to more than one language. It includes monolingual children in the process of learning a second language, bilingual children, and bilingual children in the process of learning a third language.

The strategic competence

During the eighties of the previous century, Chomsky's concept of linguistic competence generated reactions which gave birth to the development of the concept of communicative competence (Gumperz & Hymes, 1972). Teachers and didactic professionals enthusiastically adopted a communicative perspective in their teaching methods.

One of the main arguments was that the learner became responsible for his/her own learning. In other words, to learn to became as important as to learn how (see for instance McLaughlin & Nayak, 1989; Cummins, 2001).

The concept of metacognition was developed along the same lines (Flavell, 1979). Flavell defined metacognitive knowledge as the ability to control a task's difficulty. In order to solve a problem one has to be aware of a range of available strategies. According to him, a metacognitive experience is the adaptation of metacognitive knowledge through the accomplishment of the task. It includes an anticipation of the task and a measure of its outcome. Further refinements of the definition of metacognition were proposed and notions of knowledge, awareness, and control of the strategies appeared recurrently (for instance, see Brown, Bransford, Ferrara & Campione, 1983; Baird, 1990; Lee Swanson, 1990; Biggs & Moore, 1993).

With Zeidner and Matthews, we propose that strategic competence can be considered a crucial part of the executive functions involved in problem-solving (Zeidner & Matthews, 2000: 598). According to Goldstein and Levin, problem solving occurs when a goal cannot be reached through automated processes alone, thus requiring strategic competence (Goldstein & Levin, 1987). We have applied this definition to the problem solving that may be required in certain situations of communication.

Thus, in the current study, strategic competence is defined as an awareness of strategies and the subsequent willingness to use these strategies in order to communicate.

Communicative strategies and language learning

A substantial number of researches have focused on the role played by communicative strategies in language learning. In 1981, Tarone proposed a definition in which communicative strategies are considered tools used to compensate for a lack of mutual understanding between the interlocutors. When a lack of understanding occurs, an additional effort to be understood and to understand the message which is being transmitted is required from both interlocutors. Communication strategies may then be seen as a way to keep the channel of the exchange open.

Faerch and Kasper narrowed Tarone's definition, describing communicative strategies as 'potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal' (Faerch & Kasper, 1983:23).

It is important to note that although Tarone's and Faerch and Kasper's definitions of communicative strategies are slightly different, in both definitions the presence of a so called 'exolingual situation of communication' is the necessary condition for strategies to occur.

The term 'exolingual' was introduced by Porquier in 1979. According to Alber and Py (1985: 3), it can be defined as 'all face to face verbal interactions characterized by significant differences in the linguistic repertoires of the participants to the exchange.'

This type of interaction is characterized by a number of more or less successful attempts by the interlocutors to bring forth the exchange despite a lack of words. This is what Dörnyei and Scott referred to when they discussed the 'intentional attempt' to cope with the problem of the exolingual situation of communication' (1997: 179). The goal of the interaction is not so much to learn the target language as to achieve the interpersonal interaction.

MacIntyre, Clément, Dörnyei, & Noels (1998) investigated the relevance of the willingness to communicate, (abbreviated WTC, i.e. Willingness To Communicate) which they considered a necessary condition for the exchange to occur. This claim is also supported by Porquier and Py (2006).

In a previous study using a language biographical approach we observed a significant effect of the context in which the languages had been acquired/ learned on the children's WTC (Le Pichon, De Swart, Vorstman, van den Bergh, 2009; Le Pichon, 2006). Results showed that, with regard to the children's willingness to communicate, the experience

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of learning a foreign language in a formal context (abbreviated LLE, Language Learning Experience), even with very little exposure, was a more relevant factor than multilingualism per se.

In the current study we focused on the access to and use of strategies, which were considered a prerequisite for exolingual communication to be successful. Without it, a rupture of communication is likely to occur.

Strategies and L2 research

Given the important function of communication strategies in the exchange between interlocutors during exolingual situations of communication, it is understandable that they are also considered an enhancing factor in the acquisition of an L2. For instance, learners who efficiently use communication strategies are found to display a higher degree of processing control (for instance, Tardif, 1992; Kasper & Kellerman, 1997; Wenden, 1998; Rubin & Thompson, 1994; Oxford, 1990, 2001; Grenfell & Macaro, 2007). In addition, the use of strategies is often considered to be associated with the learners' independence, control, and autonomy (see for instance, Oxford, 2008; White, 2008). Considering these observations, it is easily conceivable that the acquisition of communicative strategies is indeed one of the more or less conscious targets of every language course as well as the target of research in SLA (see for instance Hurd & Lewis, 2008).

For the reasons outlined above, researchers are eager to investigate the cognitive processes underlying the use of strategies.

Different perspectives have been adopted to improve our understanding of the relationship between the use of strategies and the learner (see for a review Littlemore, 2001). For instance, Kemp (2007) found that the more languages one learned the more he/she is able to use grammatical strategies when learning a new language. Littlemore argues that further studies on the individual differences in the use of communicative strategies would allow us to recognize the patterns of strategy use. In her opinion, the identification of relationships between psychological profiles of subjects and the use of strategies would be the first step towards the discovery of the psychological processes underlying the use of communicative strategies (Littlemore, 2001: 242).

In the present study we sought to clarify the influence of the context of learning the languages on the strategic competence of the children. We reasoned that exposure to a new language in a formal (educational) context and after the age of four may provide children with a conscious experience of learning a new language, whereas learning a new language from birth onwards in a non-formal (natural) context may not provide this specific experience.

One of the essential differences between formal context and informal context when learning a new language may be the emergence of a tutored reflection on the exposure to exolingual situations of communication possibly raising a positive conscious experience of exolingual communication (Porquier & Py, 2006).

We hypothesized that this awareness, which we think is brought on by the awareness of learning a new language, may affect the intentionality of the children to conduct the exchange (Le Pichon et al., 2009) and the access to different communicative strategies.

We termed this concept "Language Learning Experience" abbreviated LLE.

Hypothesis

We hypothesized that LLE positively affects the overall strategic competence of children.

Put differently, we hypothesized that, when children are confronted with a communication problem of exolingual nature, the presence or absence of LLE is a relevant factor influencing the degree to which the strategic competence is developed and accessible.

Accordingly, in this study monolingual or bilingual children are considered to be *nLLE* when they have not been exposed to a new language in a formal context (school) from the age of four and onwards. Monolingual or bilingual children are considered to be *LLE* when they have been exposed to a new language in a formal setting from the age of four and onwards.

Conceptual framework

The strategic competence

Central in our study is the question of the strategic competence in multilingual acquisition in young children. We focused on the role of the context of the foreign languages' acquisition.

We chose to evaluate the strategic competence of young children ($n=101$, mean age: 6.7; SD : 1.9; female: 47%).

The task was designed to induce the elaboration of a strategic plan in situations in which the children's linguistic knowledge was not sufficient to carry out the exchange.

Based on the definition of communication strategies cited above, the strategic competence was defined as the awareness of and the control over communication variables. Examples include the ability to think of communication beyond the linguistic level and the capacity to contemplate different strategies to carry out the exchange. In the present paper we report the strategies that the children contemplated.

Classification of the strategies

In 1983, Faerch and Kasper established a first list of communicative strategies based on the observed strategic attitudes of adults in formal settings (Faerch & Kasper, 1983). Since then, numerous studies have attempted to define and subsequently classify communication strategies. Their designation ranges from language learning strategies, communication strategies, intercultural strategies, pragmatic strategies and, compensatory strategies. Central to the definition is the social situated function of these strategies (see for instance, Tarone, 1981; Kasper & Kellerman, 1997; Faerch & Kasper, 1983; Oxford, 1990). However, depending on their function in a given situation, they are traditionally divided in four different groups, metacognitive, cognitive, social and affective strategies (Oxford, 1990, 2008; O'Malley & Chamot, 1990).

LLE and the children's strategic competence

As emphasized by O'Malley and Chamot, (1990) metacognitive strategies are particularly interesting in L2 learning. Their main characteristic may be that they have an indirect effect on the situation of communication itself (Oxford, 2008). Their use testifies to the learner's engagement in the learning process (Wenden, 1998). It involves anticipation, planification, directed attention, self-management, self-monitoring, identification of the problem, and auto-evaluation.

Cognitive strategies such as code switching have a direct effect on the immediate issues of the exchange.

Social strategies, for instance cooperation or ask for assistance, attempt to make use of the specific social environments, thus appealing for someone's help.

Affective strategies are employed to deal positively with motivation and emotions, such as maintaining positive willingness to communicate (Oxford, 2008).

Within Faerch and Kasper's classification we retained nine strategies corresponding to the children's possible attitudes in that particular situation: anticipation, directed attention, clarification, cooperation, management of emotions, code switching, mime, imitation and ask for assistance.

Faerch and Kasper identify anticipation, directed attention, and clarification as part of the monitoring process, i.e. as metacognitive strategies. They linked cooperation and management of emotions to socioaffective strategies, code switching to interlingual strategies, and defined mime, imitation, and ask for assistance as non linguistic strategies.

Which strategies does the child utilize to manage the exolingual situation of communication?

As presented in table 1, reactions of the children were classified according to a chart of criteria.

Table 1: Description of the criteria used to classify the strategies

Strategies	Description
Directed attention	The child focuses on a semiotic cue identifying the problem. He/she tries to get back on track.
Control of emotions	The child shows self determination to communicate and does not manifest any frustration feelings
Anticipation	The child elaborates a plan to act while thinking aloud.
Mime	The child proposes to show something using mime.
Cooperation	The child proposes an explicit action to communicate with the other child.
Code switching	The child proposes another language to communicate (sign language included).
Imitation	The child proposes to do the same as the other.
Clarification	The child makes more propositions in order to reassess the information source.
Ask for assistance	The child explicitly refers to an external help to intervene.

In the current study we did not take into account the relevance of the strategies in that particular situation. That is, if a child chose a strategic attitude which did not solve the communication problem, it was still considered an active part of the clarification process. Given that the child intended to use it as a strategy, it was considered a communicative strategy, even if it was a poor choice.

Thus, success or failure of the interactions were not evaluated based on the type of strategy used, but rather on the level of determination in the willingness to communicate, in other words, the children's decision whether to engage or not in the play date (see Le Pichon et al. 2009).

The exolingual situation of communication

We confronted the children with situations of communication in which interlocutors did not share the same languages, i.e. an extreme exolingual situation of communication, (see for instance, Alber & Py, 1985; Le Pichon, De Swart, Ceginskas, van den Bergh, 2009).

These situations were presented to the children through different canals (for instance verbally and with drawings) that were part of an individual interview (Le Pichon et al., 2009).

The results presented here concern the children's answers to an open-ended question, which was the last question of the protocol. Each child's reaction to the question was registered for subsequent analysis.

For every child involved in the study we investigated the diversification of strategic choices that the child made. Responses to the question were analyzed in terms of proposed strategies. The quality of the participant's intended reaction to the situation was taken as a measure of his/her level of strategic competence.

To solve an extreme exolingual situation of communication (in the test paradigm, the interlocutors do not share the same language) a strategic elaboration of a plan is in fact required, (Kasper & Kellerman, 1997). As proposed by Bialystok (1999), this may include the elaboration of a plan, the selection of strategies, a plan targeting the issue, and a resolution phase.

Research methods

Setting and participants

The data reported here have been collected in three different countries between April 2004 and September 2005 to allow both a comparison between and a generalization over countries.

In the Netherlands (Amsterdam), we observed 28 children aged seven to eleven (mean age = 9,4), in Switzerland (Zurich) 19 participants between five and six years of age were included (mean age = 5,5), and in The United States of America (Philadelphia) 54 children were selected between the ages of four and six years old (pre- kindergarten and kindergarten, mean age = 5,5).

The children were enrolled in French (International) schools. The schools were all implanted in non French speaking areas (the canton of Zurich included). They provided an education based on a French speaking program. These schools were frequented by French native speakers, English native speakers, bilingual children of both languages, and native speakers of diverse other languages (among others Dutch for the Netherlands and Swiss-German for Switzerland).

The reactions of 101 children, (47 girls and 54 boys) ages four to eleven were observed. In all three locations the interview presented similar test conditions and was administrated by the same researcher.

Table 2. Characteristics of the study sample

	N	Mean age 4-11	SD	Gender
LLE	72	6.9	2.0	47% girls
nLLE	29	6.07	1.6	45% girls
LLE+ nLLE	101	6.7		46% girls

Statistical methods

To compare the use of strategy by monolingual versus multilingual or LLE versus nLLE respectively we carried out a repeated measures Anova with the 9 strategies within children variable and groups (monolingual versus multilingual children and LLE versus nLLE children) as between subjects variable.

Results did not essentially differ between countries in terms of age, gender, and strategy use. Therefore results of the three countries were combined. Thus, in total, 101 participants, ages four to eleven years, were included in the final analyses.

Test administration

The children were observed taking into account a 'language biographical' approach, (Franceschini, Zappatore, Lüdi, Radü, Wattendorf & Nitsch, 2001, Porquier & Py, 2006). We used open-ended questions in order to investigate the child's language learning experiences with regard to variety and types of contexts of acquisition and to gather a detailed linguistic history of each child for each language.

The researcher asked each child during the interview which languages he/she spoke, with whom, in which context (e.g. with his/her parents, with his/her brothers and/or sisters, with friends, at school, during recess, with neighbors), and which language they heard on television and in their dreams. Answers were compared with the ones provided by the teachers. In case of doubt, additional information was collected.

Results obtained included the social context of language acquisition, the nature of the family language related history, the perception that the child had of his/her languages and the timing or order of acquisition.

The tasks consisted of exolingual situations of communication to which children were confronted (Le Pichon et al., 2009).

In the task reported in the current paper, each child was asked the following question:

'Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?'

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The children's responses were welcomed with expressions like 'good job', 'how smart of you'... If children, after ten seconds, had not given an answer, or if the answer did not give a clear indication on the issue of the play date (e.g. an 'I don't know' answer), the researcher asked them: 'What do you think? Are you going to play with him/her?'

Furthermore, when children proposed to switch the language, the researcher insisted and said:

'Yes, but the other child does not speak that language!'

If the strategic attitude seemed totally irrelevant and followed by a silence equal or longer than ten seconds, (e.g. - 'I am going to speak Polish with him/her', language that the participant obviously did not speak or understand), the researcher reacted by asking him/her: 'But do you speak Polish then?'

At the end of the interview, all participants were rewarded with a sticker. Every attempt from a child to solve the task was considered as strategic and consequently classified. The intentional processes involved in the monitoring of the exchange were all considered to be an indication of the presence of the subject's strategic competence. The level of competence refers to the strategies each child plans to react with.

Which and how many strategies does he/she use to optimize the communication?

Participants

All the nLLE participants (n=29) were simultaneously bilingual. The LLE participants (n=72) consisted of monolinguals (n=44) and bilinguals (n=28), all of which were in the process of learning or had an experience of learning a new language in a formal setting.

Given the young age of the participants, we chose to conduct short interviews, (total duration of the presented test paradigm was between three and five minutes and total interview did not exceed 12 minutes).

Participants were interviewed during school time. They were not instructed prior to the interview, apart from being told by the teacher that they were going to play with an adult. Before starting, the researcher informed each subject that there were no wrong answers to the test. The interviews were conducted in the three following languages depending on the child's preference: French, English, or Italian, the languages known to the researcher. Sessions were digitally recorded and transcribed for the purpose of subsequent analyses.

Outcome measure

Based on the responses of the children, the average use of strategies (continuous variable) was blindly analyzed. For this purpose, the answers of each participant were scored on the basis of access to (or absence of) the nine communicative strategies cited above. The proportion of children in each subgroup that was found to have access to each strategy was subsequently calculated.

In order to increase the objectivity of the classification, the analyses were blindly reassessed three months after the first analysis by the same researcher, which resulted in the same classification, as well as a year later by an independent researcher.

The k statistic was calculated to assess the level of agreement between raters. A high level of agreement (78%) was observed ($k= 0.72$; $se= 0.05$; $p < 0.001$).

In accordance with the hypothesis, the study sample was divided into a subgroup LLE and a subgroup nLLE.

Results

Examples of selected answers

Typical examples of six of the children's answers are presented below to illustrate the classification process of strategies performed in this study.

Child 1: 'I try to learn what he is saying. When I get the hang of it, I speak just like him!'

Child 2: 'Je lui parle en espagnol, en arabe. Je sais pas. Je joue pas avec elle.'

['I speak Spanish to her, Arabic. I don't know. I don't play with her.']

Child 3: 'Parler comme DEUTCH. Je parle une autre langue. Je vais parler moitié suisse. Être gentil, l'aider, jouer si il est triste avec lui.'

['To speak like DEUTCH. I speak another language. I am going to speak half Swiss. Be nice, help him, play with him if he is sad.']

Child 4: 'C'est une fille ? Je vais apprendre sa langue. Elle parle en russe et en français? Je sais pas. Je vais jouer avec elle, je peux montrer, comme ça!' ['Is it a girl? I am going to teach her a language. She speaks in Russian and in French? I don't know. I can play with her, I can show her, like that!']

Child 5: 'Oui, sans parler. Je fais des gestes. Ou je peux dire un mot. Apprendre à parler cette langue.'

['Yes, without talking. I make some gesture. Or I can say a word. Learn to speak that language.']

Child 6: 'Je suis pas contente. Je vais pas jouer parce que je comprends pas la langue.'

['I am not happy. I am not going to play because I don't understand the language.']

Illustration of the classification LLE- nLLE from the six examples of answers

All six children are involved in a French (International) School.

Child 1 is a six year old boy. He speaks English at home with his parents and started to learn French at school at the age of five and a half. He is monolingual in the process of learning a new language and is therefore considered LLE.

Child 2 is a six year old girl. She speaks French at home with her parents and has been living in America since she was two years and six months old. She attended an English speaking daycare two mornings a week when she was two years and ten months old and had daily contacts with her English speaking neighbor. She is bilingual, considered nLLE.

Child 3 is a six year old boy. His mother speaks English and his father French. He is bilingual and is in the process of learning German at school as a third language. He is considered LLE.

Child 4 is a six year old boy. He speaks Russian with his mother and French with his father. He is in the process of learning German at school. He is bilingual, classified as LLE.

Child 5 is a six year old boy. He speaks French at home. He settled in The United States of America one year before the test. He is learning English at school. He is monolingual, classified as LLE.

Child 6 is a five and a half year old girl. She speaks French with her mother and English with her father. She is bilingual and considered as nLLE.

Illustration of the classification from the six examples of answers according to the criteria presented in table 1.

The use of each strategy was scored separately in all children.

Child 1 (LLE, ‘I try to learn what he is saying. When I get the hang of it, I speak just like him!’), decides to concentrate on his interlocutor and prepares himself to imitate his potential friend. In our classification, this attitude refers to anticipation and directed attention, both metacognitive strategies. When considering affective strategies, we observe that he cooperates and has a positive management of emotions. He wants to imitate his potential friend.

Child 2 (nLLE, ‘I speak Spanish to her, Arabic. I don’t know. I don’t play with her.’), proposes to switch the code, directing her attention on the linguistic cues. She cooperates in trying to switch languages, but considering her unsuccessful strategic tentative, she gives up.

Child 3 (LLE, ‘To speak like DEUTSCH. I speak another language. I am going to speak half Swiss. Be nice, help him, play with him if he is sad.’) shares the same strategic attitude as child 2, i.e. he switches languages, but he also elaborates on the strategy. He first thinks that he is going to try to communicate in German, which he is currently learning as a foreign language, and then proposes to switch to another language. Taking the researcher’s objections into account he claims that he is going to speak ‘half like in Switzerland’. One may guess that he is aware of the common underlying origin of German and Swiss-German and plans to take advantage of that particular situation. He is trying to form a plan so that he and his interlocutor match linguistically (anticipation). He perseveres and shows a clear control of his emotions by turning himself toward his potential friend. He proposes an explicit action to communicate (cooperation).

Child 4 (LLE, ‘Is it a girl? I am going to teach her a language. She speaks in Russian and in French? I don’t know. I can play with her, I can show her, like that!’), proposes right away to teach a language to his interlocutor. It is a strategy of language switching, but the essential difference with the two precedent examples is that he thinks about teaching his interlocutor one of his own languages instead of learning it from him. Then he reassesses the information source by trying to get some information about his interlocutor’s linguistic background

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(clarification). He hesitates, and then claims that he does not know. However, he does not give up. He changes his strategic plan by thinking about metacommunication. He proposes to cooperate and to play with his potential friend by using mime.

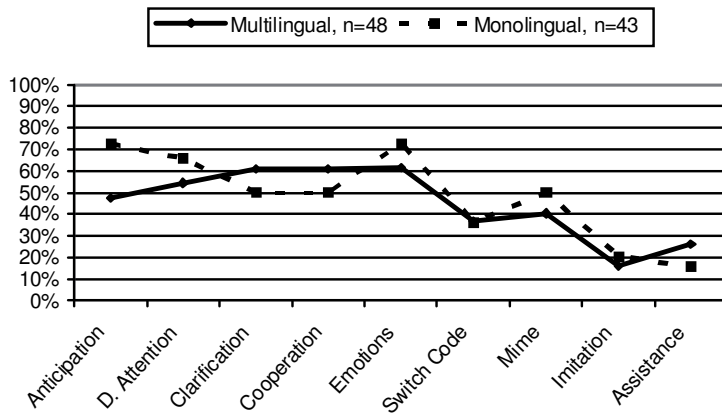
Child 5 (LLE, 'Yes, without talking. I make some gesture. Or I can say a word. Learn to speak that language.'), first accepts to cooperate. He excludes the words and proposes the mime preparing himself for the exolingual exchange (anticipation, cooperation and mime). He has a positive management of his emotions. He proposes to learn the language of his interlocutor (directed attention).

Child 6 ('nLLE, I am not happy. I am not going to play because I don't understand the language.'), makes clear that she does not like the situation, which is made obvious through her feeling of sadness. For that reason, one cannot say that she has good control of her emotions. She explains that she will not play with the child because she does not understand the language. She refuses to elaborate a plan or to ask for more information. She will not play with him/her.

Statistical results

Monolingual versus multilingual children

Figure 1: Strategy use by multilingual and monolingual children



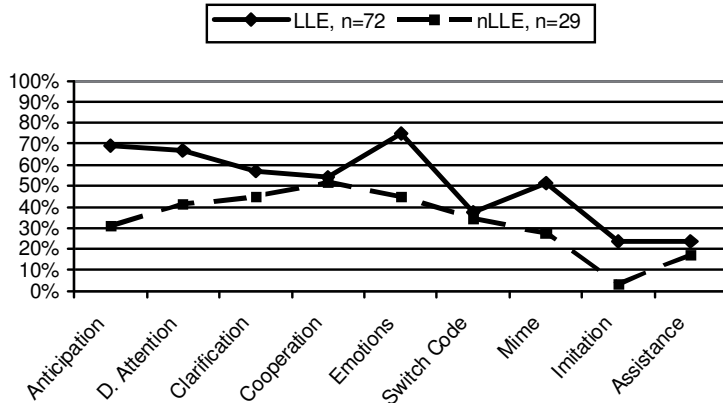
For each strategy the percentage of strategy use of monolingual children (dotted line) and multilingual children (bold line) using a strategy is provided. Given that each child may have used more than one strategy, the total percentage across all strategies exceeds 100%.

To test the differences between strategy use and type of children (monolingual versus multilingual) a repeated measures Anova was carried out. Results showed that some strategies (anticipation, directed attention) are more common than others (e. g. imitation, ask for assistance) ($F= 19.94$; $df= 8, 792$; $p < 0.01$) (see fig. 1). However, there are no differences between the two groups with respect to average strategy use, ($F= 0.93$; $df= 1, 99$; $p= 0.47$).

The interaction between types of strategy and group is significant ($F= 2.12$; $df= 8, 792$; $p= 0.03$). This effect is due to the use of the anticipation, which is more often used by monolinguals (73%) than by multilingual (47%). For all other strategies the differences between the monolingual and multilingual groups are not significant. (These similarities are shown with and without taking into account differences in strategy use due to age).

LLE versus nLLE children

Figure 2: Strategy use by LLE and nLLE children



In figure 2, the percentage of LLE ($n=72$) and nLLE children ($n=29$) that use a particular strategy is presented. For each strategy the percentage of strategy use of nLLE children (dotted line) and LLE children (bold line) using a strategy is provided.

LLE and nLLE children use some strategies more than others (anticipation, directed attention, imitation or ask for assistance) ($F=14.04$; $df=8, 792$; $p<0.01$).

The differences between LLE and nLLE are significant ($F=8.06$; $df=1, 99$; $p<0.01$), as well as the interaction between strategy and group (LLE versus nLLE; $F=2.67$; $df=8, 792$; $p=0.02$).

Although all strategies are more likely to be used by LLE children than by nLLE children, in the case of certain strategies the difference between the two groups is larger than for others.

The proportion of children that were found to have access to each of nine different strategies is presented in figure 2 for the LLE and nLLE subgroups. On average, LLE children used more strategies than nLLE children. Again, these differences are shown with and without taking into account differences due to age. Gender distribution was not skewed between the LLE and nLLE subgroups¹.

¹ See appendix 3, p. 191

One could expect that the average use of communicative strategies in the LLE group is driven by one of its constituting subgroups, thereby skewing its overall average result. However, this is not the case. The average use of all nine strategies of the LLE group is 51% against 33% in the nLLE group. The average use of strategies in the two subgroups that are combined in the LLE group (monolingual children in the process of learning a new language and bilingual children with the same experience) do not differ significantly from each other (48% and 55% respectively). In addition, each subgroup taken separately differs significantly from the nLLE group.

Conclusion

LLE as a relevant enhancing factor

The findings of this study are in line with the hypothesis that a language learning experience is a relevant factor influencing strategic competence. Our results show that:

- LLE children are using significantly more strategies in an exolingual situation in comparison to nLLE children.
- LLE children access a broader range of strategies.

Interestingly, using the same outcome measures, these differences in strategic competence were not found when comparing monolingual with multilingual children. In addition, our results indicate that the differences in strategic competence between LLE and nLLE are not driven by one of the subgroups of the LLE group (LLE includes monolinguals and bilingual children all in the process of learning a new language).

Strategic competence

Strategic competence has been defined as ‘the totality of efforts (and the perceived successes and failures of those efforts) of the individual to make sense of the world and his or her place in it’ (Van Lier, 1998: 133). In the present study this conceptualization was applied to evaluate each participant’s strategic competence in the exolingual task situation. Our

results showed a gradation in the number of strategies used. A higher expertise was marked by an enhanced access to strategic resources. Not only were the LLE children more inclined to interact, but they were also more resourceful in the way they thought about conducting the exchange. They diversified their strategies more often and accessed more resources than nLLE children.

Discussion

An explanatory model for the association between LLE and an increased strategic competence.

The enhanced metacognitive awareness shown by the LLE participants in this study through an enhanced strategic competence is likely the result of a superior monitoring and control of the situation. In a formal context the learning of a new language can be expected to be accompanied by reflections on the learning process itself as well as on the reality of the potential existence of the extreme exolingual situations of communication, i.e. a situation in which no language is shared between the interlocutors.

This may be the result of the fact that the exposure to a new language occurs in state of consciousness; “right now I am learning a new language”. This may stimulate the gradual realization that a different language exists, is spoken by some people and can be learned which is clearly illustrated by the answers of the LLE and nLLE children (see Table 3).

Some LLE children claim that they want to learn the language of their interlocutors while a number of nLLE children are inclined to renounce to the play-date after having realized that they do not speak that particular language. For instance, a teacher may ask the children to react to a communicative situation like a visit to the bakery and help the child to cope with a lack of words, asking: “what is the word “bread” in French?” or “how can you show that you want some bread if you do not know the word?” Therefore, it would seem logical that, inherent to the teaching process itself the child not only learns a new language but also gains an awareness of the existence of different situations of communication.

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We further propose that these processes that all relate to some form of awareness of communication are less likely to occur, or may occur to a lesser extent with a child exposed to two languages from birth onwards without that specific conscious experience of learning a new language in a formal context. The child then realizes that he/ she is learning a new language, and from that awareness understands that different languages exist, spoken by some and not all people. Since we do not recollect, and indeed may not even spontaneously try to reflect on the developmental stages during which there were many words that we did not yet know when we acquired our first language(s), it is likely that children exposed to two languages from birth onwards may be less conscious of the possibility that some people may not speak all of these languages.

The conscious aspect of the learning may then be the keystone of that process. The difference between the two groups (LLE versus nLLE) is captured by the concept of Language Learning Experience, a concept in which the term “experience” may be the most vital. It includes some processes which, as suggested by Dunlosky and Metcalfe (2009) may not be tagged as metacognitive in nature, such as willingness to communicate but may be underlying a certain form of metacognitive development (strategic competence) or lack thereof with respect to the present task situation.

Thus, the specific experience of LLE children about the exolingual situation of communication as well as their reflection about it may help them to analyze and assess their own abilities to solve the communication problem. The awareness of and access to different possibilities to solve the problem will further help the child to become more inclined to conduct the exchange. Awareness of the problem as well as possible solutions are likely to provide more confidence in the child and thus a more positive attitude towards the situation.

This reasoning would reinforce the theory of interdependence of metacognitive regulation and metacognitive knowledge claimed by McGlynn and Kaszniak, (1991). As underlined by Boekaerts (1992), what the children think they can achieve with their personal knowledge and what they know about the task may motivate or inhibit their attitude towards it, as illustrated by child 6's answer to the task ('I am not happy. I am not going to play because I don't understand the language.'). Indeed, even if this little girl had had access to the capacities to monitor the exchange, it appears from her answer that she still would not consider herself able to do so. This leads her to avoid the problem in the pre-stage

of the task. Furthermore, despite the imaginary nature of the task, her reaction is coupled with a feeling of failure, sadness ('I'm not happy.').

Thus, the extreme exolingual situation of communication as a part of LLE (i.e. when children are taught a new language they do not speak that language, and are likely to be aware of that), allows the learners to reassess their knowledge of the situation, giving them more confidence in their skills and allowing them to cooperate and to elaborate a plan to solve the task. In contrast, nLLE children are less likely to have acquired conscious experiences of exolingual situations.

LLE versus bilingualism

Even if the model itself may not be as simple, since it involves numerous factors which may interact to influence children's strategic competence (for instance, conditions of learning, type of learning, dispositions), our findings point to the idea that all children may benefit from an LLE, particularly simultaneously bilingual children (the nLLE group in this study). In this way, they are stimulated to reevaluate their linguistic capacities and their strategic competence. Such an exposure seems to enlarge their vision of communication as well as to enhance their self-determination in their willingness to interact. It helps them to seek in their strategic resources to prepare for the exchange.

We suggest that this mechanism may very well underlie the increased strategic competence in the LLE group. These hypotheses also support a recent claim by Francis about the limitations of bilingualism per se as the grounded explanation for an enhanced metalinguistic awareness. According to Francis, (2004: 29) 'Clearly, bilingualism is not a necessary condition for developing advanced levels of metalinguistic awareness, [...]. In fact, bilingualism, 'per se' may turn out to play a decidedly secondary role. Rather, as has been suggested, metalinguistic development may be favoured in 'learning' contexts in which students of a L2 are compelled to apply higher-order cognitive strategies, (...)'

Francis also suggested that specific tasks of classroom matter might possibly be responsible for a metalinguistic enhancement. Among them, the 'negotiation of meaning with native speakers' and the improvement of 'control language processing' seem to be of particular interest with regard to the strategic competence, as both tasks target an optimal

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management of the exolingual situation of communication. Yelland, Pollard and Mercuri (1993) added that similar effects may be found even with very little exposure to the target language.

Limitations

What do reactions to an imaginary situation of communication tell us about reactions in real life situation? For Wenden (1998), strategies that learners think they would use are an indication of their strategic knowledge. ‘When I get the hang of it, I speak just like him!’ By formulating his plan in this way, this participant’s statement serves as proof for what he knows he can learn. It may be born out of a feeling of confidence regarding his experience of learning a new language at school.

According to Schneider and Pressley, when even a very young child is instructed about a strategy, he/she may be able to use it (Schneider & Pressley, 1997; Brown, et al., 1983). In accordance, our data suggest that even very young learners may be capable of displaying strategic competence influencing ‘their approach to learning and the expectations they hold about the outcome of their efforts’ (Wenden, 1998: 515). Further research is needed to explore this issue.

Results of the present study stress the importance of the distinction between formal and natural exposure to a foreign language, thus supporting the notion that learning a new language in a formal context implies a conscious process.

Our results show that a formal exposure to a foreign language is significantly more likely to enhance the strategic competence in young plurilingual children than natural exposure alone. In summary, one may say that LLE appears to significantly enhance the strategic competence of the child, positively influencing his/her approach to the interaction. Moreover, this enhancement depends more on the LLE than on bilingualism per se.

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CHAPTER 5

SPEAKER, HEARER AND EXTERNAL ORIENTATIONS: DEVELOPMENT OF THE STRATEGIC COMPETENCE IN YOUNG PLURILINGUAL CHILDREN

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Submitted

ABSTRACT

In a previous study, we demonstrated that the experience of learning a new language positively influences the metacognitive awareness of young plurilingual children in terms of willingness to communicate and strategic competence. In the present study, we expanded the analyses of the observations of 101 children to examine two hypotheses. First, we hypothesized that the strategies reported by the children would group into a limited number of strategic clusters. Second, we predicted that the children's awareness of strategies would depend not only on the experience of learning a new language but also on age.

The factor analysis of the strategies used indicated three clusters which we termed Speaker orientation, Hearer orientation and External orientation. The analyses showed a significant effect of learning a new language in a formal context and after the age of four, abbreviated LLE, i.e. Language Learning Experience, on the Speaker orientation. In addition, age showed a linear effect on the three identified clusters of strategies. These findings are highly relevant as they may help to shed light on the differences in cognitive orientations, which in turn will give us more insight into why learners use strategies differently.

Introduction

Little is known about how strategic competence develops in plurilingual children (Yabukoshi & Takeuchi, 2009; Tragant & Victori, 2006), how specific linguistic biographical aspects may influence the strategic competence, such as the context in which a language is acquired (Benson & Gao, 2008), and why children differ in their use of strategies.

It is important to improve our knowledge of these aspects, particularly because, in a growing number of European countries, foreign language courses are being introduced in the curriculum of young children.

The present research aims to contribute to the understanding of these issues. The extent to which strategic competence may relate to different cognitive orientations in 101 children aged 4 to 11 is investigated.

Strategic competence

Strategic competence as an essential component of the communicative competence (among others Canale & Swain, 1980) refers in this study to an awareness of communication strategies and the subsequent willingness to use these strategies in order to communicate in an exolingual situation of communication.

An exolingual situation of communication is characterized by a lack of mutual understanding that may occur due to discrepancy in the knowledge of the target language (Le Pichon, De Swart, Ceginskas, van den Bergh, 2009).

Indeed, to bring forth an exolingual exchange both a sufficient awareness of communication strategies and the willingness to utilize them are required to optimally convey meaning despite a lack of words.

Communication strategies, alternatively called compensatory strategies (for instance, Poulisse, 1990), have been defined as ‘specific behaviours or thoughts that learners select consciously or semi-consciously with the goal of improving their knowledge and understanding in the target language’ (Pinter, 2006: 616).

As can be expected, when put in an exolingual situation of communication people differ with regard to their knowledge, awareness and subsequent use of strategies (see Benson & Gao, 2008).

We have previously shown that the development of strategic competence in young children is positively affected by the experience of learning a new language (Le Pichon, De Swart, Vorstman, van den Bergh, 2009). Based on the concept of learning a new language as a conscious learning experience as opposed to acquiring two languages from birth, we compared the reactions of monolingual or bilingual children with an experience of learning a new language, abbreviated LLE children (i.e. with a Language Learning Experience), with the reactions of bilingual children without that specific experience, abbreviated nLLE children, (i.e. without a Language learning Experience).

LLE children were found to display more strategies and were more willing to communicate than their nLLE peers. However, we observed that not all strategies appeared to be equally affected by LLE. In the case of some strategies, no significant differences were found between reactions of LLE and nLLE children. We concluded that other factors of influence deserved to be studied.

This study was conducted to elucidate this issue. Indeed, knowing more about how contextual and individual variables influence the plurilingual children's awareness of communication strategies may help us to better understand the development of the strategic competence. In the end, this knowledge could improve our ability to better direct didactic methods in L2 learning.

The adequate use of strategies has been recurrently coupled with improved learning abilities (Tardif, 1992; Kasper & Kellerman, 1997; Rubin & Thompson, 1994; Wenden, 1999; Oxford, 1990, 2001, 2008; Grenfell & Macaro, 2007; White, 2008).

More specifically, an improved strategy use may distinguish the most effective learners through the number, the range, the appropriateness and the way in which strategies are applied in accordance with the context of learning (Chamot, 2001:32).

Strategic competence is in fact one of the focal points of the studies of educational relevance which target the enhancement of metacognition in learners.

Patterns of strategy use

Findings of a limited number of preferred approaches to a problem suggest recurring patterns in problem solving (see for instance, Graf, Lin & Kinshuk, 2008). As proposed by Grenfell and Macaro (2007), the identification of the strategies that appear together during the same task by the same learner may bring essential insights into the identification of patterns of strategy use in different learners (see also Oxford, 2003).

The identification of recurrent patterns of strategic competence could point towards the existence of a limited number of cognitive orientations that underlie the use of strategies. Cognitive orientations have been defined as different ways of processing, retrieving and, transmitting information that characterize the individual learner (see for instance, Littlemore, 2001).

Therefore, the identification of cognitive orientations may summarize and enlighten the different approaches to problem solving in terms of strategy use.

The strategic competence is essential to solving a problem and can reveal an individual's orientation to problem solving.

Research questions

Independence of the observed strategies

Our previous findings showed that the difference in use of strategies between LLE and nLLE children was more important for certain strategies than for others. This observation also suggested that perhaps not all nine strategies analyzed were to be considered as truly independent. In fact, the responses of all participants were analyzed according to the a priori selected nine different strategies that were adapted from Faerch and Kasper (1983), without empirical support, however, for the independent nature of each of the strategies.

In other words, the question can be asked whether each strategy reflects a different underlying cognitive style, or, alternatively, whether strategies tend to cluster together, thus reflecting a smaller number of underlying strategies.

In line with this argumentation, one can reason that clusters of strategies reflect particular orientations that children may draw on to handle a particular communicative problem in relation to LLE versus nLLE and to the age factor.

Age influence on the strategic competence

When looking for underlying relationships between an improved strategy use and language learning, many scholars acknowledged the presence of multiple factors that may influence the development of strategic competence (see for instance, Krashen, 1987; Lan & Oxford, 2003; Jessner, 2008; Benson & Gao, 2008; Cohen & Macaro, 2007; Oxford, 2008).

For instance, sources like (1) the nature of the task, (see Corkill, 1996; Pinter, 2006; Macaro, 2008; Benson & Gao, 2008) (2) the context of learning versus acquisition and (3) the age of learning, have been shown to significantly influence the strategic competence (see for instance Lan & Oxford, 2003; Le Pichon et al. 2009).

Age, nature of the task and context of learning are considered in relation to the test paradigm used in the present study.

(1) In the current study, **the nature of the task** presented in the test situation, an exolingual situation of communication, consisted of a short semi-standardized interview at the end of which each child was asked to solve the following problem:

'Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?'

According to Benson and Gao, 2008, in a task that targets the resolution of communication problems, in this case an exolingual situation of communication, strategies may be chosen according to their function in the exchange (Benson & Gao, 2008).

Consequently, nine strategies were considered most likely to be relevant to the nature of the task posed in the research paradigm:

Anticipation, directed attention, clarification, cooperation, management of emotions, code switching, mime, imitation and ask for assistance.

(2) The second factor of influence presented above is **the context in which the language is learned**.

In 1990, O'Malley & Chamot (1990) drew our attention to classroom settings, as opposed to natural settings, as potential generators of controlled cognitive strategies. According to them, spontaneous acquisition does not lead children to become more conscious of their use of strategies.

Our research supports this claim with regard to the task paradigm and the population of the study. Indeed, the contextual aspects of the acquisition of the languages are at the very heart of the concept of LLE versus nLLE. This concept consists of the difference between those children that possess the experience of learning a new language in a formal context e.g. school or language courses (LLE children) and those children that lacked this specific experience (nLLE children).

With regard to the cognitive access to communicative strategies, our findings showed that LLE children clearly outperformed nLLE children in terms of willingness to communicate and means of strategy use.

These results identified LLE as a major source of influence on the metacognitive development of young plurilingual speakers (Le Pichon et al., 2009), which corroborates the observations of De Angelis (2006) McIntyre, Clément, Dörnyei, & Noels, (1998); Yashima, Zenuk-Nishide, & Shimizu, (2004), Gardner (1983), Wattendorf, Westermann, Zappatore, Franceschini, Lüdi, and Radue (2001). The findings strongly suggested that the conscious learning of a new language is particularly relevant to the acquisition of strategic competence, which in turn facilitates the learning process.

(3) **The age at which a foreign language is learned** constitutes a third factor of influence. It has always been considered an essential factor in second language acquisition, yet relatively few studies have investigated the age factor with regard to strategic competence. Some researchers mentioned a lack of studies regarding children's strategic competence (Yabukoshi & Takeuchi, 2009; Tragant & Victori, 2006). Besides the possible influence of the age of exposure to a new language on the strategic competence as formulated in the concept of nLLE versus LLE, **the age of testing** is also likely to be important. Indeed, maturational processes in children involve a fast development of cognitive abilities that may lead them to operate differently regarding their use of strategies. In other words, when testing children for their abilities in terms of strategic competence, one may expect different levels and/or profiles of strategic competence at different ages.

Hypotheses

The following hypotheses are tested in the current study:

- The nine strategies reported by the children (see Table 1) will group into a limited number of strategic clusters.
- Children's ability to access various communicative strategies is (also) significantly affected by their cognitive developmental stage at the age at which they are tested.

We first present the methodology of this study. This is followed by the results, consisting of the results of statistical analyses following an analysis of several illustrative examples of answers. Then the results are re-examined in the context of LLE- dependent and age-dependent developmental patterns. Lastly, we discuss the implications of the clusters when studying the influence of the context of learning on children's strategic competence.

Methods

Design

The present study is based on three cross-sectional datasets regarding the use of strategies proposed by 101 young plurilingual children. In the current paper, the denomination 'plurilingual' does not take into account the attained level of linguistic competence in each language. It includes monolingual children in the process of learning a second language, bilingual children, and bilingual children in the process of learning a third language (see among others Le Pichon et al., 2009).

Thus the participants were 101 primary education children enrolled in three different schools (n=101, mean age: 6.7; Standard Deviation (*SD*): 1.9; female 47%).

The first group was made up of 28 participants from Amsterdam, the Netherlands, (n=28, aged eight to eleven, mean age=9.4). The second group consisted of 54 participants from Philadelphia, the United States of America, (n=54, aged four and a half to six, mean age: 5.5). The third group consisted of 19 children from Zurich, Switzerland, (n=19, aged six to seven, mean age 5.5).

All groups were analyzed independently. Given the absence of any significant effects of the factor location on the results, the data of the three groups were combined (Le Pichon et al, 2009).

Semi-standardized interviews were conducted with each child within the schools in independent rooms and consisted of open questions that targeted the linguistic biography of each child, their thoughts about it, and their reactions to exolingual situations of communication. Examples of answers are provided in the next section.

Interviews never lasted longer than 13 minutes. Children received a sticker as a reward. No specific instruction was provided prior to the test. Any attempt on the child's part to solve the problem was viewed as an indication of personal investment. Consequently, all initiatives to bring forth the exchange were considered as strategic. Therefore, every strategy identified as such was considered to reveal a certain stage of the participants' strategic competence.

Assignment

Answers reported in the present study are those to the last question of the protocol:

'Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?'

The participants were thus challenged to solve an exolingual situation of communication defined by a lack of understanding between speakers of different languages. This task was chosen to encourage the elaboration of the use of strategies. Given the controlled nature of the task, answers were easy to examine and subsequently quantify.

It is important to note that all children involved in International schools are bound to be familiar with this particular situation. If they are not in the process of learning a new language themselves (thus nLLE children), they all have one or more children in the class who does not master one of the school languages (thus in the process of learning a language at school, i.e. LLE children).

Data

Numerous classifications of the strategies have been proposed (see for instance Cohen & Macaro, 2007; Hurd & Lewis, 2008). A common approach classifies the strategies based on their function. It thus divides the different strategies identified in L2 learning into four categories: metacognitive, affective, cognitive and social-interactive (see for instance Oxford, 2008:52).

We retained nine strategies that we considered as being the most relevant to solving the tasks of the protocol:

Anticipation, directed attention, clarification, cooperation, management of emotions, code switching, mime, imitation and ask for assistance.

Based upon the definitions of these strategies, we created a precise chart of criteria. Use of those strategies in the children's reactions was then identified using these criteria (see Table 1).

Table 1: Overview of the nine strategies included in the coding system

<i>Strategies</i>	<i>Descriptions and protocol examples</i>
Directed attention	The child focuses on a semiotic cue identifying the problem. He/she tries to get back on track. (e.g., 'If he doesn't speak English or French, I couldn't ask him. I could just play with him.')
Control of emotions	The child shows self determination to communicate and does not manifest any frustration feelings. (e.g., 'Hello! Maybe I can try to play with him.')
Anticipation	The child elaborates a plan to act while thinking aloud. (e.g., 'Je sais pas. Je vais jouer avec elle.' [I don't know. I am going to play with her])
Mime	The child proposes to show something using mime. (e.g., 'I can show her, like that!')
Cooperation	The child proposes an explicit action to communicate with the other child. (e.g., 'I take my game boy and show it to her.')
Code switching	The child proposes another language to communicate (sign language included). (e.g., 'Je connais un peu de ... je sais pas beaucoup, mais j' ai des livres. Non, demander avec les mains.' [I know a little bit of ... I don't know much, but I have books. No, ask with my hands.'])
Imitation	The child proposes to do the same as the other. (e.g., 'Je vais apprendre sa langue.' [I am gone learn her language])
Clarification	The child makes more propositions in order to reassess the information source. (e.g., 'Does she speak French?')
Ask for assistance	The child explicitly refers to an external help to intervene. (e.g., 'I would ask her mum: what language does she speak?')

Method of analyses

LLE versus nLLE

The hypotheses were tested by comparing the strategic competence of two groups of children.

The first group (nLLE group) had already acquired two languages before entering school while the second group (LLE group) was composed of children, whether bilingual or not bilingual, who all had the experience of having learned a new language in a school context after the age of four. As a consequence, only the LLE group had a conscious language learning experience.

We collected the following linguistic biographical data:

- The number of languages acquired or in the process of being acquired.
- The age at acquisition of each language.
- The context of acquisition and environment in which the exposure occurred (types of school, classroom language instruction, daycare, amount of language instruction / exposure, context in which each language is/was used.)

Based on the information obtained, the context in which each child had acquired/learned his/her language(s) was determined and two groups were formed: LLE (n=72) and nLLE (n=29).

Interrater reliability

The participant's answer to this standardized question was classified by two independent raters according to the predefined strategies. The Cohen's kappa was calculated to assess the level of agreement between raters. High level of agreement between the two independent raters was observed in the outcome measure (78%, $k=0.72$; $se= 0.05$; $p<0.001$).

Statistical methods

In order to find out the number of underlying constructs, we performed a factor analysis. Subsequently, an analysis of variance for repeated measurements (ANOVA) was used to examine the relation between LLE, age at testing and the resulting factors.

Results

In this section, we present the results of the statistical analyses regarding the interrelatedness of the nine strategies (1) and their relation to LLE and age (2).

The results are illustrated using a qualitative interpretation of several examples of participants' answers to the test, and interpreted in relation to the three clusters identified.

Identified factors

Results of the factor analysis suggested that the variance in scores of the nine strategies can be summarized by three clusters that explain sixty seven percent of the observed differences in strategy use.

These clusters are displayed in Table 2: Speaker, Hearer and External orientations.

Table 2: Speaker, Hearer and External orientations

<i>Strategies</i>	<i>Cluster 1</i>	<i>Cluster 2</i>	<i>Cluster 3</i>
Anticipation	.672		.441
Directed attention	.845		
Control of the emotions	.822		
Mime	.752	.306	
Cooperation		.783	
Code switching		.678	
Imitation		.712	
Ask for assistance			.782
Clarification	.397		.663

The interrelatedness of the strategies is marked by a positive factor loading (e.g. Morrison, 1990). It quantifies the relationship between a factor and a specific strategy. These factor loadings may be interpreted as the correlation between the test and the factor.

For instance, one can observe in table 2 that the four strategies *anticipation*, *directed attention*, *control of emotions* and *mime*, are related to each other with scores that exceed .650. This means that children that employ the strategy of anticipation are very likely to use it in combination with the other three strategies mentioned above. A plausible interpretation of these factor loadings may be a shared underlying cognitive process.

The three identified clusters may thus reveal three distinctive cognitive orientations, namely Speaker, Hearer and External orientations.

First cluster: Speaker Orientation

This orientation can be illustrated through Maya's answer:

Maya's answer contains the determination of the problem (*directed attention*), a plan of the intervention (*anticipation*), an effort to control her emotional state (*control of the emotions*) and a controlled intervention through the *mime*. *Anticipation* (she elaborates a plan to act while thinking aloud), and *directed attention* (she

focuses on a semiotic cue identifying the problem and tries to get back on track), are used to plan the intervention.

Anticipation and *directed attention* are both strategies that imply a reflection on the situation itself without a direct intervention on the situation. '*I don't know what to say to her*'. Beginning her reflection with this remark, Maya lets us know that she is in the process of defining the problem while also showing that she excludes irrelevant strategies such as the linguistic ones.

'I come to her'. Then Maya chooses to approach the child. She wants to make contact with her interlocutor. Her control of emotions is positive.

Maya:

'je sais pas quoi lui dire. Je viens vers elle. J'essaie de la faire jouer avec moi. Je lui montre ce que je fais et je lui fais signe de me suivre.'
[I don't know what to say to her. I come to her. I try to let her play with me. I show her what I do and I show her to follow me].

She does not express any fear, sadness, or anger. 'I try to let her play with me'. The chronology of the description of her potential behaviour is remarkable. She is now capable of involving her partner.

She speaks in terms of attempts: 'I try'. This clearly shows that she is trying to solve the problem, while remaining conscious that her strategic plan may fail. Then she explains how she tries: 'I show her what I do and I show her to follow me'.

With the help of *mime*, the exchange manifests itself as a concrete expression. The problem and its limits are defined, the strategy is chosen, now she may act.

She ends by picturing herself walking away with her imaginary friend. This shows that she is decided to interact from the very beginning and does not doubt her own ability to do so.

Thus, the Speaker orientation (see Table 2) includes four strategies: *Directed attention* (the child focuses on a semiotic cue identifying the problem and tries to get back on track), *control of emotions* (the child appears determined to communicate and does not manifest any overt feelings of frustration), *mime* (the child proposes to show something using mime), and *anticipation* (the child elaborates a plan to act while thinking aloud).

Three of the strategies, *anticipation*, *directed attention*, *control of the emotions*, are used to plan the intervention. The intervention is further expressed explicitly through the *mime*. The strategy of *mime* emphasizes the orientation towards collaboration attributed to this cluster.

The four strategies follow a clear pattern: they can all be considered as directed towards the speaker. Therefore, this cluster was dubbed 'Speaker orientation', orientation that is directed toward the activation of the expressive competence.

Second cluster: Hearer Orientation

The Hearer orientation may be illustrated by Mickael's, Dirk's and Julie's answers:

Mickael, Dirk and Julie are clearly willing to cooperate.

Mickael:

'I try to learn what he is saying.

When I get the hang of it, I speak just like him.'

'I try to learn what he is saying. When I get the hang of it, I speak just like him.' Mickael's first action is a learning action. He offers to learn the language of his interlocutor in order to be able to speak with him. This learning experience is manifested by a strategy of imitation. Imitation is clearly oriented towards the interlocutor. It consists of an adaptation of one's self in order to understand the other. Mickael chooses to adapt to his interlocutor's linguistic behaviour. This is translated in Mickael's behaviour by his willingness to participate through the imitation of his interlocutor's language.

'I pretend that I speak his language. I say: Do you speak English? I play with him. I don't say anything.' Dirk's first proposition consists of imitating his potential friend by pretending to speak his language. This determination is reinforced by his initiative to find a common language. This is manifested in a new switch in the language to English, which he probably considers to be an international language.

Dirk:

'Je fais semblant que je parle sa langue. Je dis : Do you speak English ? Je joue avec lui. Je dis rien.'
[I pretend that I speak his language. I say: Do you speak English? I play with him. I don't say anything].

Dirk speaks Danish with his father and French with his mother and at school. He is in the process of learning German at school. Thus English is not comprised in his plurilingual repertoire.

Dirk does not renounce to bonding with this potential friendship. He only renounces to the use of verbal language and considers the possibility of playing without words.

'I think about what they say. I talk as well as I can.' Julie's reaction and Mickael's reactions have a pattern in common that suggests that the identification (of what?) occurs in two stages. The first stage is

Julie:

'Je pense à ce qu'ils disent. Je parle le mieux que je peux.'
[I think about what they say. I talk as well as I can.]

characterized by a reflection on what the other say, while trying to understand the purposes of the exchange. The second stage is marked by their verbal intervention in the exchange: *I talk as well as I can*, Julie's action is also clearly oriented toward the interlocutor.

All three strategies (*cooperation*, *code-switching* and *imitation*) involve a certain level of engagement and empathy. The child handles the exchange by orienting him-/herself to the reception of his/her interlocutor. However, this orientation is not passive. The child makes him-/ herself available to the other, offering him/her the chance to participate. As illustrated by the children's answers, the learners consider themselves active participants as revealed by the pronoun 'I' in the first position. This orientation (Table 2) is thus composed of the strategies of *cooperation* (the child proposes an explicit action to communicate with the other child), *code switching* (the child proposes another language to communicate, sign language included), and *imitation*, (he/she proposes to do the same as the other).

The hallmark of this orientation is an attempt to understand the interlocutor through the help of *cooperation* (the child proposes an explicit action to communicate with the other child), *code-switching* (the child proposes another language to communicate), and *imitation* (the child proposes to do the same as the other).

When compared to the first orientation one can easily observe that the strategies in the second factor are all oriented toward the interlocutor. Therefore, we called this cluster 'Hearer orientation'. While the strategies involved in the speaker-oriented factor emphasize the speaker, the strategies involved in the hearer-oriented cluster capitalize an ongoing process of understanding. At the same time, the Hearer orientation points to a subtle adaptation of oneself to the other, sustained by a willingness to discover who the interlocutor is by a high level of involvement.

Third cluster: External Orientation

Naomi's answer illustrates this orientation.

Naomi:

'I would ask her mum. What language does she speak?'

By using the *clarification* and *ask for assistance* Naomi avoids addressing her interlocutor directly and tries to reassure herself by either obtaining additional information, (a child may ask: 'What's her name?' strategy of *clarification* addressed to the researcher), or by avoiding a direct confrontation. Naomi asked the researcher: '*What language does*

she speak?’ Another child declared: ‘I would ask my parents to speak another language.’

Clarification and *ask for assistance* are both strategies that are oriented toward a source of help situated outside of the ongoing exchange. It seems that these strategies exemplify the use of the avoidance, which is not an exclusion of the exchange itself but rather a turn around solution possibly interpreted as ‘I want to, but I do not feel confident enough.’

Thus, the third orientation (see Table 2) includes two strategies: *clarification* and *ask for assistance*. Both strategies, *clarification* (the child makes additional propositions in order to reassess the information source) and *ask for assistance* (he/she explicitly refers to an external help to intervene) involve the intervention of an external help. Their use can be seen as ‘safe’ exploratory strategies.

When compared to the two former clusters, these two strategies share an orientation towards an external intervention. We called this orientation ‘External orientation’.

Double loadings

A double loading is considered when a strategy appears in two clusters. Please note that the number of double loadings was low.

For instance, in Table 2 the strategy of *mime* appears in cluster 1 with a score of .752. This means that a child using *mime* is most likely to use it in combination with the strategies of cluster 1 (Speaker orientation). However, a child using *mime* will also be inclined to use the strategies included in cluster 2 (Hearer orientation), though to a much lesser extent (the score is smaller than .350). Small double loadings are observed only for *mime*, *anticipation* and *clarification*. In fact, both Speaker

Hugo :

‘Moi, je sais pas. Oui, sans parler. Ah, je sais, je fais des gestes. Ou je peux, si je peux dire un mot, dire un mot. Il peut m’apprendre à parler cette langue et après je peux parler avec lui.

[Me, I don’t know. Yes, without talking. O, I know, I make some gestures. Or I can, if I can say a word, say a word. He can teach me to speak that language and after that, I can talk with him.]

orientation and External orientation appear to influence the strategy of *clarification* though to a different extent.

For instance, some of the children that mentioned a strategy oriented toward the hearer also reported the *mime* as illustrated by Hugo's answer:

Hugo is immediately willing to cooperate. However, he struggles with the question of how to do so. He first tries to mime and then alternatively offers to switch the code and to learn the language of his interlocutor.

LLE and age of testing factors with regard to the three clusters identified

The clusters resulting from the Factor Analysis Speaker, Hearer and External orientations were used to examine the correlation with LLE (i) and age (ii) respectively.

1. The influence of LLE on the identified clusters

The mean scores on Speaker orientation, Hearer orientation and External orientation were standardized. The means of use (M) of the three clusters (Speaker, Hearer and External orientations) and standard deviations (SD) for LLE and nLLE children are presented in Table 3.

One can observe that nLLE children are scoring lower than LLE children on all three clusters. However, the effect size of this difference is substantial for the first cluster (Speaker Orientation) but relatively small for the two others (Hearer and External Orientations).

Table 3: Means (M) and standard deviations (sd) of standardized scores for LLE and nLLE children

<i>Clusters</i>	<i>LLE</i>		<i>nLLE</i>	
	<i>M</i>	<i>Sd</i>	<i>M</i>	<i>Sd</i>
Speaker orientation	.20	.93	-.51	.99
Hearer orientation	.02	1.10	-.05	.70
External orientation	.03	1.04	-.07	.90

This result shows that the difference between LLE and nLLE varies between the three orientations ($F(1,99)=4.05$; $p=.04$).

In an analysis of variance for repeated measurements, the relation between LLE and the three strategies involved in the Speaker orientation was explored. LLE clearly affects the Speaker orientation, ($F(1,99)=5.46$; $p=.02$). LLE children show an increased use of strategies in comparison to nLLE children.

Thus, LLE children were found to be significantly more inclined to use speaker-oriented strategies. LLE children also score better on the Hearer and External orientations. However, the difference observed between the LLE and the nLLE groups is not significant. Importantly, the absence of significant effect of LLE on the Hearer and on the External orientations is the same in the three countries and for all children.

2. The influence of age on the identified clusters

The relation between strategy use, age and LLE was analyzed using a regression model. Age affects strategy use to the same extent in LLE and nLLE groups. In Table 4, the regression parameters are presented.

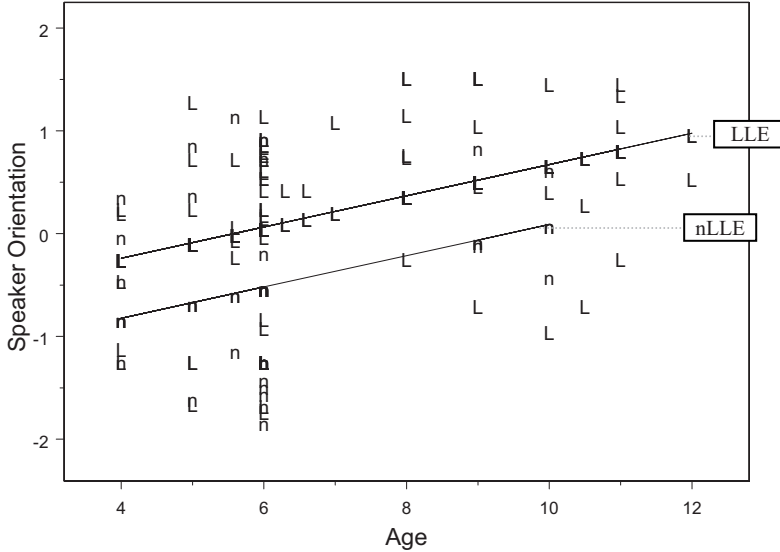
Table 4. Regression weights for the relation between LLE and nLLE, age and the three cognitive orientations.

	<i>Speaker orientation</i>		<i>Hearer orientation</i>		<i>External orientation</i>	
	β	(SE)	β	(SE)	β	(SE)
Constant	-1.50	(.49)	2.28	(.50)	-.84	(.55)
Age	.26*	(.08)	-.35*	(.08)	.14*	(.05)
nLLE	-.56*	(.20)	-.26	(.21)	-.02	(.22)
Expl. Var.	.45		.42		.17	

* $p < .05$

As can be observed in Figure 1, age has a significant effect on the Speaker orientation ($t = (.26/.08) = 3.25$; $p < .05$). The relation between age and strategy use does not differ between the LLE and the nLLE children. Please note that this holds true for the three orientations, respectively Speaker, Hearer and External orientations.

Fig. 1: Relatedness between age (x-axis) and Speaker Orientation (Z-score on Y axis) for LLE (L) and nLLE (n) children.

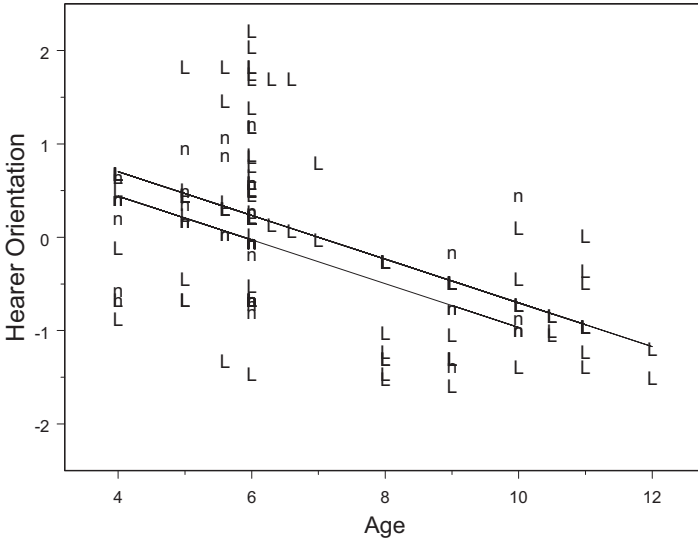


Age has a positive influence on the Speaker orientation. The difference between LLE and nLLE groups is significant.

The nLLE children score somewhat lower in all age categories ($t = (-.56/.20) = -2.8; p < .002$). Accordingly, the performance on the Speaker orientation increases with age and is higher for LLE children. The older the learner, the more he or she is inclined to be Speaker oriented. This is equally true for LLE and nLLE children.

As can be observed in Figure 2, age appears to have a significant negative effect ($t = (-.35/.08) = -4.3; p < .001$) on the Hearer orientation. In other words, the older the learner the less he/ she will be inclined to use the Hearer orientation.

Fig. 2: Relatedness between age (x-axis) and Hearer Orientation (Z-score on Y axis) for LLE (L) and nLLE (n) children.

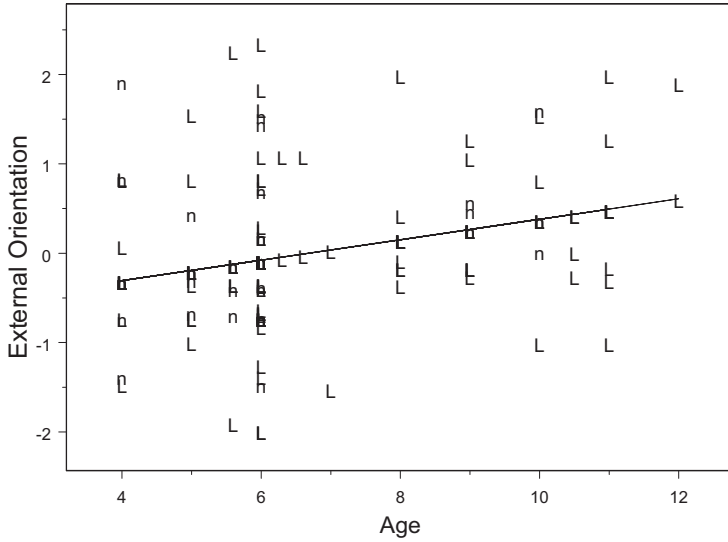


Age has a negative influence on the Hearer orientation. No significant difference can be observed between LLE and nLLE groups.

Regarding the effect of age, no significant difference between LLE and nLLE children can be found. Moreover, results indicate that the use of the hearer orientated strategies decreases with age, for LLE- as well as for nLLE children. This suggests that the older the child is, the less hearer-oriented he/she becomes.

As can be observed in Figure 3, however, age appears to have a positive influence on the External orientation. ($t = (.14/.05) = 2,8; p < .003$). The older the children, the more inclined he/she is to use the external orientation.

Fig. 3: Relatedness between age (x-axis) and External Orientation (Z-score on Y axis) for LLE (L) and nLLE (n) children.



Age has a positive influence on the External orientation. One may observe the absence of significant difference between LLE and nLLE groups.

Again, no significant difference between LLE and nLLE can be found. This means that there is no significant effect on the external orientation of LLE when compared to nLLE.

To sum up, the use of *clarification* and *ask for assistance* increase with age, but the external orientation is not enhanced by LLE.

Conclusion and discussion

Summary of the results

The purpose of this study was to understand the nature of the relationship between the nine strategies identified in 101 plurilingual children's reactions to an exolingual situation of communication.

We applied a factor analysis in order to find possible explanations for differences in the use of strategies between the LLE/ nLLE groups of children and to detect possible patterns of relationships between the uses of strategies.

1. As we predicted in the hypothesis, a limited number of factors emerged, which we termed Speaker, Hearer, and External orientations.

Further analyses indicated that:

2. LLE enhances the Speaker orientation across all ages.
3. LLE has no significant effect on the Hearer and External orientations.
4. Age positively influences the Speaker and External orientations and has a negative influence on the Hearer orientation.

Results from the present study show that LLE is only advantageous in regard to the Speaker orientation. In line with Littlemore's definition of cognitive styles (Littlemore, 2001), results of the current study provide insights into the effect of LLE on three different types of cognitive orientations and the influence of age on their use. Littlemore (2001) proposed that cognitive styles, akin to the three cognitive orientations identified in this study, may influence the use of communicative strategy. Our findings confirm that claim. They show a strong effect of LLE on the Speaker orientation.

LLE and the three cognitive orientations

(1) LLE and the Speaker orientation

One could think that the fact that consistently better performances of LLE children is the result of a confounding factor, such as the strategic attitudes of the children constituting one of the subgroups (the bilingual children in the process of learning a third language in the LLE group, for instance). As noted in our previous study, however, (Le Pichon, De swart, Vorstman, van den Bergh, in press) this is not the case. With regard to the monolingual as well as the bilingual children, both LLE subgroups differed significantly from the nLLE group with respect to their average use of strategy. This finding pointed to the superior strategic attitude of the LLE children. However, findings of the current study refine our observations to prove that LLE is relevant to the acquisition of strategic competence only as regards the Speaker orientation.

As noted in the description of the classification of the strategies, *anticipation* and *directed attention* included in the Speaker Orientation have both always been classified as metacognitive strategies (see for instance Faerch & Kasper, 1983). As such, they are considered part of the planning process, having an indirect effect on the situation of communication. In the field of Second Language Acquisition, they are usually considered to be learning strategies used to optimize the learning process (Hurd & Lewis, 2008). Thus, our findings suggest that LLE may in particular enhance metacognitive strategies.

According to Blank, speaker oriented strategies are used to increase communicative efficiency. They are used to ‘render speaking more efficient’ (Blank, 1999: 64) and, in the same line of reasoning as in the pragmatic literature, speaker-oriented strategies are defined in terms of direct intervention to modify one’s behaviour in order to communicate more successfully.

Our results seem to confirm this view since the Speaker orientation put forward the ‘I’ as a subject in action. Indeed, rendering speaking more efficient and increasing communicative efficiency can be considered prime targets of a foreign language teacher, and the positive effect of LLE on speaker orientation appears to be an important element to achieve this goal.

(2) LLE and the Hearer orientation

In contrast to the Speaker orientation, the very low correlation between the Hearer orientation and LLE and its decreasing use through all ages are somewhat unexpected. The Hearer orientation, composed of *cooperation*, *code switching* and *imitation*, may be considered a motivational factor in carrying out the exchange, which suggests a willingness to discover who the other is. They may be compared to what Vandergrift identified as giving a ‘transformative orientation’ to the exchange (Vandergrift, 2002). It confirms the traditional view of *cooperation*, *code switching* and *imitation* which generally ‘aim at assuring the correct understanding’ of the interlocutors’ discourse (Blank, 1999:64).

Thus this cognitive attitude may be particularly relevant, for instance, in the case of an intercultural competence.

Therefore, didactic objectives of learning a foreign language in the formal context should be directed toward the acquisition of this orientation too. The emphasis put on the speaking skills in LLE environments may explain the disappearance of this orientation through age. It may be considered a result of the enhanced effect of the Speaker orientation.

(3) LLE and the External orientation

In Faerch and Kasper’s classification, for instance, *ask for assistance* and *clarification*, which both constitute the External orientation, are not classified in the same category. *Clarification* is classified as a socio-emotional strategy, whereas *ask for assistance* is considered a non-linguistic strategy. However, their appearance together and their increasing use with age make perfect sense. Both are oriented toward an external help.

Their use testifies to a growing consciousness of the other as a possible source of help. In fact, it corroborates Oxford’s later classification who classified these two strategies together under the social-interactive category (Oxford, 2008).

Their lack of correlation with LLE may suggest that plurilingual children feel alone when faced with exolingual situations of communication, whether they be monolingual, bilingual, with an experience of learning a new language or not.

Evolution of the strategic competence with regard to the age factor

The enhancement of the Speaker orientation with age may be interpreted as a result of the formal context of learning. It is opposed to a decreasing use with age of the Hearer orientation.

A tentative explanation of the enhanced effect of the Speaker orientation could be related to the classroom. One of the goals of a Foreign Language Learning teacher is to increase the communication efficiency of the learner in the target language through the development of his or her linguistic and communicative competences. It consists of the exolingual exchange planning phase, which is rendered in the speaker orientation by the strategies of *anticipation* and *directed attention*. *Anticipation* implies the elaboration of a plan. *Directed attention* helps the child to define the problem, which in our protocol as well as in the foreign language classroom is defined by a lack of words. The language is thus the logical focus of the attention.

The Speaker orientation also includes the strategies of *control of emotions* and *mime*. Both strategies are used as an intervention on the part of the speaker to share his/her own intentions. LLE as a conscious learning is used to better monitor the exchange and gain confidence in one's own judgment. The effect is enlightened by a growing use with age of the two metacognitive strategies involved in the Speaker orientation. Through the identification of the problem to solve, a self determination to communicate, the child becomes capable of elaborating a plan to act.

The very low correlation of LLE with the External orientation may be surprising since LLE is defined by a necessary involvement of the presence of a teacher, at least as a mediator. As a consequence, one could have expected that LLE children would show an easier access to these two strategies than nLLE children. In other words, that LLE would have induced in the children a growing consciousness of the teacher as a trusted help to solve the communication problem. This is not the case. The fact that the external orientation seems to be enhanced by age but not by LLE suggests that the children in the Language Learning classroom may not be encouraged to rely on the teacher or any external help. They are faced with exolingual situations of communication in which they are encouraged to interact with others alone. This may at least be the way children apprehend this learning environment and, by extension, the exolingual situations of communication.

Age factor in light of literature

When considering the age factor, Brown and Day (1983) claimed that the older the learner is, the more proficient he/she will be. However, this claim has been contested. Recently, Tragant and Victori (2006) submitted a questionnaire to a large number of children aged 10 to 17. They observed some variability. The older the learner at the age of the test, the more frequently he/she used cognitively demanding strategies whereas reported social strategies tended to disappear with an increase in age. Results of the present study confirm the evolving nature of the strategic competence.

A comparison of Tragant's results to findings of the current study points to a possible linear, as well as dynamic, development of the strategic competence. Indeed, Tragant and her colleague observed a decreasing use with age of the strategies that depend on external sources such as asking or studying with friends and relatives (Tragant & Victori, 2006:232). Interestingly, we observed an increasing use with age of the corresponding External orientation composed of the strategies of *clarification* and *ask for assistance*. However, the oldest children in our study were eleven years old, which corresponds to the age of the youngest children in their study. We can therefore only hypothesize that the use of the External orientation increases naturally with age until around the age of ten/eleven and is then submitted to reversed tendency to decrease with the development of self-autonomy (as suggested by the authors cited above). In addition, the increasing use with age of cognitively more demanding strategies observed by Tragant and Victori corresponds not only to the observed effects of age on the Speaker Orientation, but seems to be in accordance with the observed effects of LLE.

Limitations

The list of the nine strategies selected prior to the test and based on related literature may not be exhaustive. For instance, according to the data of the current study a strategy of approach emerged based on an enhanced or reduced distance between the child and his/her pretended interlocutor as seen in Maya's proposition: *'I come to her. I show her what to do and I show her to follow me'*.

However, in accordance with the method, this strategy has not been identified as such. Further research is needed to provide a more elaborate list of strategies used in exolingual situations of communication.

Didactic perspectives

It seems obvious that an enhanced strategic competence as a whole may be suitable with regard to the overall development of the child.

In that sense, the strong development of the Speaker orientation with LLE may be considered positive. As noted above, the Speaker orientation emphasizes the independence of the Speaker and is enhanced by LLE. In contrast, the Hearer and External orientations that are oriented toward the exterior appeared not to depend on LLE. This allows us to suggest educationally relevant aspects of the strategic competence.

As noted earlier, given the fact that one of the features of LLE is the presence of a teacher as a mediator, one could expect the LLE children to be more aware of his/her potentially helpful presence and, consequently, to be more inclined to *ask for assistance* and/ or *clarification*, thus to rely more on the strategies involved in the external orientation.

The strong influence of LLE on the Speaker orientation, however, may be particularly encouraging as a starting point to reinforce the presence of the two other orientations, Hearer and External. Further research on didactic applications is needed to confirm and develop the didactic implications of these findings.

Conclusion

In summary, the findings of this study shed light on the manner in which strategic competence develops in young plurilingual learners, as well as the manner in which specific linguistic biographical effects influence their strategic competence, the LLE and age of testing factors in this study.

Pertaining particularly to the contextual aspects of learning, our results show that the speaker orientation is enhanced by LLE and is developed with age.

Importantly, results of the current study maintain a dynamic view of the strategic competence, supporting Hurd's claim (2008: 232). Perceptions and the subsequent use of strategies may be subject to changes, though not arbitrarily, as suggested by the three cognitive orientations observed and their linear evolution in time.

These results may be of great importance for educational analysis. They reveal how some orientations in the strategic competence are stimulated or are not stimulated by an LLE and point to a sociolinguistic development of cognitive orientations. The present findings reinforce the need to adopt a flexible approach to the development of strategic competence in children, which may be affected by a range of different factors which in turn may also be intertwined in a complex way.

According to the results of the current study, LLE and age are undoubtedly two of these factors, though not the only ones. Further research is needed to help identify others.

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CHAPTER 6

CONCLUSION: THE RELATIONSHIP BETWEEN PERCEIVED COMMUNICATION, WILLINGNESS TO COMMUNICATE, STRATEGIC COMPETENCE AND COGNITIVE ORIENTATIONS

ABSTRACT

Rationale and findings of each of the four preceding studies are summarized. In particular, the nature of LLE and of the strategic competence is considered in relation to the results of the four preceding studies. Many researchers have argued that willingness to communicate and strategic competence have an important positive impact on learning a language. However, few have explored the children's communicative awareness of strategies qualitatively *and* quantitatively and with regard to their linguistic repertoire, i.e. the context in which a language has been learned, with whom, and at what age (see for instance Takeuchi, Griffiths & Coyle, 2007).

The identification of the way children treat exolingual situations of communication and of the factors that influence their treatment is essential to understanding how to better direct our teaching methods.

I believe that the findings of my research highly contribute to our understanding of the interrelationships between social interactions and the learning of the languages.

LLE versus nLLE

Olivia and Joy are both 6 years old. At the moment of the enquiry, they were being schooled in the same establishment, in the same classroom. The most important finding of this thesis, the effect of a conscious Language Learning Experience (LLE) on the metacognitive awareness of the children, is most adequately illustrated by these two girls' answers.

In response to the question:

'Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?'

Joy answered:

'I speak the other way that they speak. Spanish, Italian, je ne sais pas.'

Joy accepts to participate from the moment she is confronted with the exolingual situation of communication. She identifies the problem (the language) and she proposes a solution, that is, to speak *'the other way that they speak'*. In so doing, she gives her own definition of the notion of language. It is equally remarkable that she answers with *'they'* instead of with *'she'*. One would expect her to use the pronoun *'she'* since it would refer to her potential friend. Her use of *'they'* instead of *'she'* may be interpreted as her more or less conscious idea that a language belongs to a community of speakers. In her words, learning a language becomes a process of entering a community. Then, she defines the 'language' as *'a way'* of speaking. According to her, a language is just one way of expressing one's thoughts, thoughts that she articulates in mentioning two languages that she does not yet master, i.e. Italian and Spanish. Her positive self-esteem is underlined by the fact that she does not even doubt her ability to learn the language of her potential friend.

The foreign language does not constitute for her an a priori barrier to communication. It is just an unknown language that, like all other languages, can be learned.

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In response to the same question, Olivia answered:

'Si mes parents est pas là, si ils sont partis, je vais pleurer.' [If my parents are not present, if they are away, I am going to cry.]

Olivia shows fears when confronted with the imaginary exolingual situation of communication. She does not even think about communicating. She fears to be left alone and appears panicked by the idea of being confronted with a situation she identifies as a scary situation of communication. She does not propose any strategy to solve the problem, nor does she show any willingness to communicate with the imaginary friend.

One notable difference between these two girls is that Joy has learned a new language at an age and in a context that allowed her to be conscious of her learning. Joy was, at the moment of the enquiry, monolingual (English speaker) in the process of learning the French language. In contrast, Olivia had been exposed to French and English since she was born. She has thus acquired two languages in a less conscious way, i.e. from birth onwards in a natural (home) environment. The difference between the two girls is the conscious LLE present for Joy but not Olivia.

LLE is the core concept in this thesis. Findings of this thesis suggest that children may benefit from a Language Learning Experience regardless of whether they are already bilingual or not. The learning of a new language at an age that children may be conscious of the learning process helps to improve the metacognitive awareness and may enhance their confidence in exolingual situations of communication.

Rationale of this thesis

The exolingual situation of communication

The exolingual situation of communication, which has been defined in this thesis as a situation in which one is required to interact without sufficient knowledge of the target language, constitutes a major challenge in our globalizing world (see chapter 1, this thesis). The exolingual situation of communication is particularly challenging because the self confidence that one has in his/her own capacities to bring forth the exchange is challenged by the absence of, or lack of, linguistic expertise. This implies that means of communications, other than the purely linguistic ones, must be considered in order to carry out an exchange that is characterized by the absence of a common language between the interlocutors. The awareness of these non-linguistic contextual cues is usually referred to as metacommunicative awareness.

Heterogeneity of multilingual groups of children

In many publications bilingualism is reported to positively affect, amongst other aspects, communicative awareness in children (see Cenoz & Jessner, 2000: 48, Genesee, Tucker & Lambert, 1975; Jessner, 1997; Jorda, 2005; Hoffmann, 2001). This implicitly means that the bilingualism of a child would allow him/ her to develop intrinsic advantages. However, it may not be the most valid approach to consider bilingualism in children as a single factor to the acquisition of metacommunicative awareness (see also Castellotti & Moore, 2002); one can easily imagine that to some children, bilingualism does indeed represent mainly benefits, whereas, to others, it may rather be something they struggle with. Previously published studies also confirm this discrepancy. For instance, in the nineties, some scholars who compared monolingual to bilingual children's reactions did not report any advantages associated with bilingualism (Nayak, Hansen, Krueger & McLaughlin, 1990; Bialystok, 2001; Bialystok, Majumder & Martin, 2003). In 2003, Bialystok suggested that the influence of factors other than bilingualism *per se* were reflected on the performance of the observed groups of participants. This thesis explores possible explanations for this inconsistency.

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To challenge the homogeneity of the multilingual groups of children, I hypothesized that learning a language later in life is likely to differ from simultaneous bilingualism in that the former occurs in a context and at a developmental stage during which the child can be aware of the fact that he or she is learning a new language.

Therefore, I termed this experience a *Language Learning Experience*, LLE. The language learning thus becomes a *conscious* experience, and this experience, I hypothesized, may explain some of the advantages that are attributed to bilingualism.

Considering LLE as a differentiating variable I studied a cohort of 101 children from three different French international schools. I compared the reactions of children *with* the experience of learning a new language to the reactions of children *without* (LLE *versus* nLLE children). I also compared, in keeping with the most frequently reported approach used so far, the reactions of monolingual children to the reactions of multilingual children. Importantly, LLE is not restricted to the bilingual child. For instance, a monolingual child that has learned or is in the process of learning a new language at school would not be considered bilingual but would be considered LLE. Conversely, a bilingual child may not have experienced the learning of a *new* language and, thus, he or she would be considered nLLE. In other words categorizing the child as LLE or nLLE is independent of bilingualism.

This thesis examines whether an enhancement of some aspects of metacognitive awareness in children can be attributed to a conscious experience of learning a new language (LLE). It is contrasted to simultaneous bilingualism of a child who does not have the conscious experience of learning a new language (nLLE) in an attempt to separate out the potential beneficial effects previously attributed to multilingualism.

Summary of the findings

To increase our insight into the various factors that cause the heterogeneity within mono- and multilingual populations should allow future studies to take into account these factors improving the accuracy of research in the field of multilingualism. This thesis was carried out to explore the extent to which one of these possible factors, namely the learning of an additional language at an age when the child is conscious of this learning process, may influence the course of exolingual interpersonal communication.

In the majority of the studies, which have began in the sixties of the past century, a positive relationship between multilingual education and the development of metacognitive awareness is reported. To identify advantages of bilingualism, most scholars compared monolingual groups of children to bilingual groups of children thereby assuming a sufficient degree of homogeneity between the groups. Bilingual children scored generally higher than monolingual children. More specifically, the results indicated that bilingual education may lead to a greater metalinguistic awareness and a greater ability to deal with communication problems, often attributed to a better perception and treatment of information.

The results presented in this thesis challenge some aspects of these claims. In particular, the question is raised whether bilingualism *per se* or rather, variables included in or associated with bilingualism positively influence the metacognitive development of the plurilingual child.

As described in this thesis, such variables may include the timing or order of acquisition of the language(s), the social context of language acquisition, the people with whom the languages are spoken, the amount of exposure to each language, the nature of the family language related history, and the perception that the child has of his/her languages (Castellotti & Moore, 2006; Molinié, 2006; Lüdi, 2005; Franceschini, Zappatore, Lüdi, Radü, Wattendorf & Nitsch, 2001; Porquier & Py, 2004).

In order to examine the possibility of other factors influencing the metacognitive development of the plurilingual child, I focused on the possible influence of one factor in particular: the Language Learning Experience (LLE).

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I assumed that children would perform differently in communication tests, depending on the presence or absence of the LLE (chapters 2, 3, 4, 5, this thesis).

More specifically, I hypothesized that the LLE may be a relevant factor for the development of certain aspects of metacognitive awareness in young children and particularly for the development of different communicative abilities. I summarized these various abilities in the concept of communicative competence.

These abilities were all considered in the context of an extreme exolingual situation of communication: that is, a situation of communication defined by the absence of a common language between the interlocutors.

Throughout the different studies in this thesis I used various test paradigms that all shared one core characteristic, i.e. that the test person is confronted with an exolingual situation of communication. This choice was based on the assumption that in an exolingual situation, children, monolingual and bilingual alike, would be equally challenged.

In each chapter I adopted a different approach to evaluate the child's metacommunicative awareness, assessing different outcome measures and using different exolingual situation test paradigms. I analyzed the child's reactions to extreme exolingual situations of communication presented in the tests, each time comparing nLLE children to LLE children, in accordance with the main hypothesis of this thesis.

The different perspectives ranged from a focus on the perception that children have of this particular communicative scenario to an analysis of their capacity to consider the outcome of the exchange. In the next sections, I will describe in more detail the different approaches that characterize the studies in this thesis, as well as the core findings.

Summaries of the chapters

The first step in exploring the different aspects of communication that may be affected by the Language Learning Experience, consisted of the observation of children's perception of the extreme exolingual communicative setting, extreme referring to the absence of a common language between the interlocutors. To control a task difficulty such as an exposure to an extreme exolingual situation of communication, one has to be

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aware of a panel of various contextual cues. Therefore I observed the children's ability to think about communication beyond the linguistic level (**chapter 2**).

This was operationalized by presenting a simple situation of communication via short movie clips in which an actor spoke a language unknown to the tested child. The clip showed the actor in the process of cutting a fruit or pouring a glass of water while talking in a language unknown to the child. The clip ended by the same actor presenting the fruit / the glass of water to the camera. Intonation, a paralinguistic cue supposed to facilitate the understanding of the message, also accompanied the verbal message that finished with a request/ question addressed to the camera.

Fifty-four plurilingual children (monolingual in the process of learning a new language, bilingual and bilingual in the process of learning a third language) from the same classrooms aged four to six were randomly presented with two movie clips, one in a foreign language and another without sound.

While adjusting for potential confounders such as gender and age, results showed that LLE significantly improved the children's performance for this test.

Confirming the main hypothesis, LLE children displayed an enhanced metacognitive awareness. This became apparent through a more effective interpretation of the communication problem in both versions of the movie clips (with and without sound), and by a greater ability to solve the problem posed by the absence of purely linguistic cues. Indeed, results revealed that regardless of the testing protocol (*foreign language* versus *silent*) LLE children were more inclined than nLLE children to answer the actor. They were also more inclined to look for meaning from all contextual cues associated with the exchange (the glass, the water, the gestures) than were nLLE children. LLE children also dissociated the different notions (silent version or sound version with foreign language) better than nLLE children. Therefore, I conclude that the previous or ongoing conscious experience of learning a new language, the defining aspect of LLE, improves the child's performance, possibly because it increases the child's awareness of the situation of communication. This may in turn help the child to understand the message conveyed beyond the spoken language. As a possible explanation of these findings, I propose that an LLE may teach the children to exclude irrelevant cues such as the absence of sound or the foreign language. This preferential attention towards the interpretable cues is likely to allow the children to manage interpersonal communication with greater facility.

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In summary, findings of this first study are consistent with the hypothesis that a Language Learning Experience significantly enhances children's understanding when dealing with and solving exolingual communication problems.

In chapter 2, LLE children seemed to present an enhanced metacommunicative awareness. In particular they were less inclined to give up the exchange than nLLE children. However, I could not conclude from these results that the LLE children were *more willing* to communicate than their nLLE peers.

Willingness to communicate in exolingual situations of communication is a crucial requirement to conduct the exchange. The willingness to communicate in such a situation does not only consist of a desire to communicate but has to be sustained by a strong desire to carry out the exchange. Accordingly, willingness to communicate may be defined by an anticipation of the exchange and a measure of the outcome. The willingness to communicate is therefore a crucial component of the exchange because effective communication goes far beyond the simple transfer of information. The outcome of the exchange can often be better described as 'I would like to communicate with you' rather than 'I need to tell you that...'

Thus **the second step** of this thesis consisted of a systematic analysis of the children's willingness to communicate in extreme exolingual situations of communication (**chapter 3**). I chose to test the potential effect of LLE on the willingness to communicate and to compare it to the potential effect of simultaneous bilingualism on the same variable.

'Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?'

One hundred and one plurilingual children aged four to eleven years old were confronted with the imaginary exolingual situation of communication that was described at the beginning of this chapter:

The willingness to communicate was evaluated through the outcome of the exchange, i.e. whether or not the child gave up the exchange. I considered the intentional processes involved in the monitoring of the exchange as an indication of the presence of the children's metacommunicative awareness. Reactions of monolingual children were compared to those of bilingual

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children and then, reactions of LLE children were compared to reactions of nLLE children.

Surprisingly, overall, monolingual children scored as well as bilingual children. The difference between the two groups was not significant. This result meant that, regarding the willingness to communicate in these situations, bilingualism does not confer a greater advantage than does monolingualism. The results were quite different when I compared the LLE children to the nLLE children. Here the results showed that LLE children were significantly more inclined to carry out the exchange than nLLE children.

This finding demonstrates that the presence or absence of LLE is a more relevant factor than mono- or multilingualism per se, at least with regard to the willingness to communicate in an exolingual situation of communication.

While the willingness to communicate is a necessary requirement to carry out the exchange, and the results of chapter 3 demonstrated that LLE children are more willing to communicate than nLLE children, I did not ascertain whether LLE children would also be *more able* to communicate than nLLE children. Indeed, the various definitions of metacognition all include knowledge, awareness *and* control of the strategies (see Baird, 1990; Biggs & Moore, 1993).

Communicative strategies are obviously an important prerequisite for a successful exchange in an exolingual situation. Almost 30 years ago, Tarone defined strategic competence as ‘the ability to convey information to a listener and correctly interpret the information received. It includes the use of communication strategies to solve problems that arise in the process of conveying this information’ (1983:123). The ability to solve the problem posed by the exolingual situation can thus be defined as the ability to consider and use communicative strategies.

Therefore, **the third step** of the thesis consisted of investigating the children’s capacity to consider strategies in carrying out an extreme exolingual exchange (**chapter 4**).

I examined the effect of LLE on the diversification of strategic choices that children make to solve the imaginary exolingual situation of communication. The number of different communicative strategies that children displayed to solve the exolingual communication problem was taken as a global measure of the extent to which LLE can influence the strategic competence of children.

Based on the results of the previous studies, I proposed again that the presence or absence of a Language Learning Experience would be a relevant

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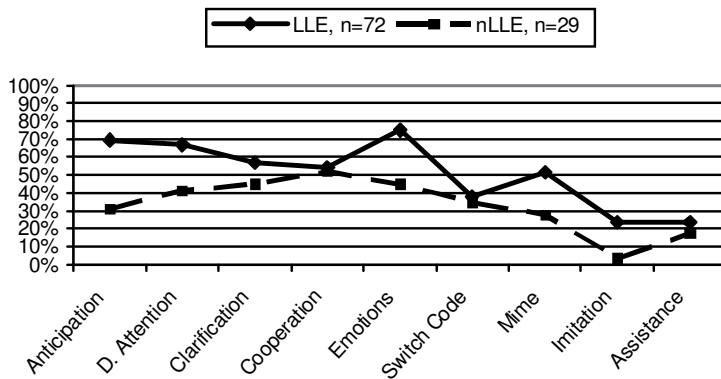
factor influencing the degree to which the strategic competence is developed and accessible.

From Faerch and Kasper's first classification of communicative strategies, I retained nine strategies that I considered relevant to solve the problem posed by the extreme exolingual situation of communication (Faerch & Kasper, 1983). These nine strategies, namely directed attention, control of emotions, anticipation, mime, cooperation, code switching, imitation, clarification, and ask for assistance are traditionally divided into four groups depending on their function in the exchange.

Thus, strategies range from metacognitive, cognitive, and social to affective (Oxford, 1990, 2008; O'Malley & Chamot, 1990; Kasper & Kellermann, 1997).

All strategies considered by the children were evaluated as an active part to the problem solving. As can be seen in the figure below, results showed again that LLE children significantly outperform their nLLE peers by displaying more strategies and diversifying their strategies more often.

Figure 1: Strategy use by LLE and nLLE children



LLE children outperform nLLE children: on the X-axis are depicted the nine strategies, namely directed attention, control of emotions, anticipation, mime, cooperation, code switching, imitation, clarification and ask for assistance. On the Y-axis is the proportion of children in each subgroup that uses the strategy.

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However, no significant difference emerged when comparing the monolingual to the multilingual children's reactions.

Thus, in addition to the positive effect of LLE on metacommunicative awareness and willingness to communicate, as shown in the previous studies, the current study indicates that LLE children develop on average a superior monitoring and control of exolingual situations of communication. LLE was associated with a better use of strategies whereas simultaneous bilingualism was not.

This finding emphasizes the idea that all children, not excepting simultaneous bilingual children, may benefit from a conscious Language Learning Experience through the learning of a new language in a school context from age four and onwards.

When examining the results gathered so far, it becomes clear that LLE is at least partly responsible for an increased awareness of metacommunication in children, as demonstrated by an increased willingness to communicate, and better strategic competence when exposed to extreme exolingual communication experiences.

Having confirmed that LLE can indeed be considered a variable accounting for a share of the enhancement of strategic competence, two questions were next raised:

1. LLE appeared to have an effect on certain, but not all, strategies. For instance, on the figure presented above, one may observe a clear difference in the use of the strategy of anticipation by LLE *versus* nLLE children, to the advantage of the former. However, regarding the use of the strategy of cooperation, the results did not present any difference between LLE and nLLE children. The question was, then, could a coherent pattern be identified in the use of strategies with respect to the influence of LLE?
2. The second question that was raised concerned the effect of age on the use of strategies. Could it be that the different strategies were affected differently by the age, which could be taken to indicate a developmental pattern of metacognitive awareness?

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To explore these issues, the project was extended to the **fourth step**. In line with the two questions raised above, analyses of the strategies were expanded to examine two hypotheses (**chapter 5**):

1. In order to examine whether a coherent pattern could be identified in the use of strategies, I hypothesized that the strategies would group into a limited number of clusters. In other words, I hypothesized that the identification of the strategies that were displayed together and by the same child would point to a smaller number of strategies pointing to the identification of patterns of strategy used. I analyzed the strategies the children displayed during the 'park' task, i.e. their reactions to the question: *'Imagine, you are in a park and you want to play with a child who does not speak any of your languages. What are you going to do?'*
2. Given the fast cognitive development of young children, I also hypothesized that, apart from LLE, age would affect the use of strategies differently.

The results of this study confirmed both hypotheses:

First, based on a factor analysis of the strategies reported by the children and described in chapter four, the nine strategies clearly showed interrelatedness and they appeared to cluster around three factors. From the nature of the strategies that made up each cluster I was able to infer three different orientations in the communication process. In other words, I reasoned that these three clusters of strategies reflected particular orientations that children may draw on to handle a particular communicative problem.

I termed the clusters *Speaker*, *Hearer* and *External* orientations according to the function they appeared to have in the interpersonal communication process.

The Speaker orientation was constituted by four strategies, *anticipation*, *directed attention*, *control of the emotions*, and *mime*. Together, they have in common that the speaker is the principally active person in the exchange. Children that are mainly Speaker oriented are actively planning their own interventions in the exchange.

The Hearer orientation includes the strategies of *cooperation*, *code-switching*, and *imitation*. These three strategies together can be considered an attempt to understand the interlocutor. For instance, the child who is Hearer oriented is more inclined to switch language to find a shared language with the interlocutor.

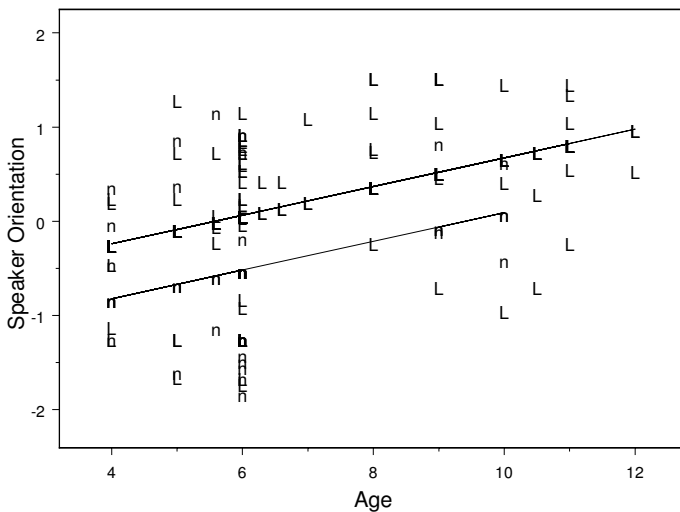
Conclusion

The children who mainly display an External orientation are inclined to rely on the intervention of people exterior to the face to face exchange. This orientation comprises two strategies, namely *clarification* and *ask for assistance*.

Second, the *Speaker*, *Hearer* and, *External* orientations appeared to be differently affected by age. More specifically, as shown in the figure below, the *Speaker* and the *External* orientations appeared to be enhanced with age while the *Hearer* orientation diminished with age.

Third, results also confirmed the effect of LLE on the strategic competence and, more specifically, that LLE acts on the strategies involved in the *Speaker* orientation.

Figure 2: Age, LLE and Speaker orientation.



In this figure, the relatedness between age (x-axis) and Speaker Orientation (Z-score on Y axis) for LLE (L) and nLLE (n) children is depicted. Age has a positive influence on the Speaker orientation. The difference between LLE and nLLE groups is significant.

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In summary, the findings of this last study confirmed and added more depth to the findings described in chapters 1 through 4. They suggested that strategic competence may be subject to developmental patterns and that these patterns are inclined to increase or decrease depending on a range of different factors.

The data presented here strongly suggest that LLE and age are two of these factors.

The results of the four papers firmly back up the main hypothesis, which states that a Language Learning Experience has a significant and positive effect on the metacognitive awareness of children and that the LLE factor may be a more relevant factor than bilingualism *per se*.

However, the discussion may not end there. As stated by Cavalli Sforza *'even though every research contributes in bringing valuable solutions to the problems stated earlier, it engenders in the end more questions than there were at the beginning of it'* (own translation, Cavalli-Sforza, 1996:8). Indeed, the findings of this study strongly suggest that LLE is to be considered a major factor of influence on the metacognitive development of plurilingual children, and that, as such, it contributes to our understanding of how metacognitive awareness develops in children.

Yet, some questions may be raised regarding their interpretation, especially considering the results of the present thesis.

In the following sections, I will elaborate on theoretical implications of the findings of this thesis. In particular I will elaborate on the possibility that LLE may act as a factor that allows a positive identity construction. Then, I will discuss the construction of the metacognitive advantages identified in this thesis, particularly with regard to the age factor. Also, some limitations concerning the evolution of the strategic competence with regard to the age factor will be presented. I will conclude by presenting potential didactic applications of the findings and future directions for research.

Implications

As proposed by numerous researchers, identifying factors that enhance metacognition in children is important (Fisher, 1998). Metacognition is considered a key player in the improvement of learning abilities. Defined as the ability to plan and monitor reflective processes, metacognition is thought to provide the child with self- reflection and to help the child gain control over the organization of his/her own learning. Improvement of metacognition through the improvement of metalinguistic awareness for instance, would distinguish the expert learner from the novice learner (McLaughlin & Nayak, 1989; Malakoff, 1992; Cook, 1993; Jessner, 1999; Herdina & Jessner, 2002). Results of the present thesis strongly suggest that LLE is one such metacognition-enhancing factor. It confers a better metacommunicative awareness in plurilingual children as demonstrated by an enhanced willingness to communicate in exolingual situations of communication as well as a more developed strategic competence.

The concept of LLE was conceived based on the hypothesized role of a conscious experience of learning a new language as opposed to the simultaneous acquisition of one or more languages. The four studies in this thesis demonstrate that when the exposure to a new language occurs in a time and context in which the child can be aware of the language learning, it may enhance the metacognitive awareness of the child. As discussed in chapter 4, this effect of LLE is associated with increased confidence and a more positive attitude towards the situation. In contrast, nLLE children are less likely to develop a positive experience in exolingual situations. They are more inclined to give up the exchange, and are less self-confident with regard to their potential to deal with the communication problem. Given these observations I propose that LLE contributes to a positive identity construction. I will first draw upon the term *positive* in the expression 'positive identity construction' and then on the term *construction*.

LLE: a factor contributing to the construction of a positive identity

Approach to exolingual situations of communication

My results stress the fact that natural exposure to languages alone may not be sufficient to develop a positive approach to exolingual interaction. Indeed, as noted earlier, the decision not to carry out the exchange was often accompanied by negative feelings (*'I am going to cry'*, *'I feel sad'*, *'I feel angry'*, *'I don't play with him/her'*).

Results of the present thesis showed that nLLE children were significantly more inclined to give up this exchange and thus to show feelings of frustration. In contrast LLE children had a positive attitude toward the exolingual situation of communication.

Therefore, one can even go so far as to speculate that LLE may be beneficial to all children, *including bilingual children* who have acquired their languages from birth onwards (simultaneous bilingualism). Through the enhancement of their metacognitive awareness, LLE is likely to provide children with appropriate tools to handle the exolingual exchange more effectively, which can lead to more *positive* exolingual experiences, and through those experiences to a better self confidence.

The metacommunicative awareness allows children to be conscious of the existence of the communicative problem associated with this situation. According to the literature, metacognitive awareness would provide the individual with 'both self reflection and self direction' (Vandergrift, 2006:435). This corresponds well with the findings in this thesis. The difference between LLE children and nLLE children may be the less efficient processes of self-reflection (awareness) and self direction (use of strategies) in nLLE children, leading to a more negative outcome of the exchange.

In contrast, the more positive and confident perception of LLE children to the exolingual situation allows them to direct their strategic competence toward their interlocutor.

Against this background, LLE can thus be viewed as one factor that stimulates a positive perception of challenging communicative situations, by providing the child both self-reflective as well as self-directive skills to bring the exchange to a positive end. In turn, these positive communicative experiences can, progressively, contribute to the self confidence of the child.

Conclusion

What children understand of communication

What children understand of communication has always been a concern to researchers willing to model developmental aspects of language behavior (Hamers & Blanc, 2000). Results of the four studies presented in this thesis show that the enhancement of metacognitive awareness is, at least in part, founded on previous experiences of success and failure in exolingual situations of communication. Thus metacognitive awareness can be considered a dynamic construct that, under the influence of social experiences, can evolve in either positive or negative directions.

Following this way of thinking, one can reason that the exolingual experiences associated with bilingualism may not always contribute to a positive plurilingual identity construction. As proposed by Véronique (2005), all exolingual situations of communication are comprised of interactive negotiations that may lead to cooperation and/or conflicts. Young bilingual children, because of their bilingualism, are likely to be regularly confronted with such exolingual situations of communication. As a consequence, they are also likely to have experienced situations in which they lacked proficiency, which may have been associated with negative effects in the interpersonal aspect of communication (see for instance, Miller, 2004; Cummins, 2009). Against this background it may be worthwhile to explore the optimal context and guidance that allows for positive exolingual experiences to occur in bilingual children.

The role of the context and of guidance

The didactic approach within the language classroom can be managed in such a way that the children are encouraged to deal resourcefully with exolingual situations of communication. With active guidance these experiences can be colored positively. This guidance should help the child to generate reflections on the situation of learning itself, on one's own linguistic repertoire and, on the exolingual situation of communication allowing for a better control of his/her emotions. Just like Joy, whose reaction was presented at the beginning of this conclusion, children who have sufficient positive exolingual experiences may gradually become more inclined to reflect on the arbitrary nature of a language. Progressively, these positive experiences are likely to add up to the child having more confidence in his/her communicative abilities.

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Yet, one could also reason that the positive attitude towards languages and the presence of various languages and cultures in the context of international schools are likely to exert a positive influence on the communicative competence of the children. One could argue that it is this influence, and not so much LLE, that induced the children involved in our study to better display their strategies than children involved in monolingual programs. While it is very likely that this positive environment may in fact have influenced the children's performance, in the cohort studied in this thesis, this variable should have affected nLLE *and* LLE children equally. Thus, if an international school context positively affects the willingness to communicate, the findings of this study show that the effect of LLE is superimposed to that putative positive effect.

In sum, I propose that the experience of learning a new language, at an age that allows for a conscious learning experience and in a formal context, contributes to the construction of a positive identity. This statement confirms the claim that approaches to communication may be profoundly influenced by the educational context of learning (see for instance Hanson, Boogaard & Herrlitz, 2003; Pintrich & Groot, 1990). However, more research is needed to explore this issue.

The construction of a positive identity

Developmental stages in the appearance of metacognitive awareness

Results of this thesis suggest different developmental stages in the appearance of metacognitive awareness. Most remarkably, three stages of development were identified in very young children (four to six years old), thus corroborating the claim that even very young children are able to access a certain degree of metacognitive awareness (see for instance Georgiades, 2004; Adey, Robertson & Venville, 2002).

These developmental stages of awareness ranged from an intervention in the exchange without any awareness of the processes underlying the solving of the problem, to conscious reflection about the learning process.

The first level, characterized by the absence of an explicit awareness became apparent through the observation that children answered the actor without even being aware of the fact that the movie clips were enacted in a foreign language or silently. When asked about how they had managed to understand the situation, these children answered for instance, that they had listened very carefully, even though the scene was enacted in a foreign language or without sound.

The second level was derived from the observation of the children's attempts to understand the situation, which demonstrated some level of identification of the communicative problem posed by the test paradigm. For instance, a child asked to watch the movie clip again because he claimed not to have heard the words very well.

A third stage was represented by a full understanding of the situation that resulted in an optimal treatment of the situation. The child at this level was able to dissociate the different versions (silent and with sound), to restructure and comment on his/her knowledge about the situation and to plan an intervention accordingly.

I related these three stages of perception to the three stages identified by Fisher (Fisher, 1998):

1. Cognitive description
2. Cognitive extension
3. Metacognitive thinking

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Intuitively, one could expect these different levels correlate with age. Unfortunately, the observations with regard to three developmental stages of metacognitive awareness described in chapter 2 did not allow me to test this hypothesis and examine the possible association with age, mostly due to the limited age range of the children. However, to further assess the effect of age, the study of the strategies assessed in a group of children aged 4 to 11 described in chapters 4 and 5 provided a more continuously distributed outcome measure.

The influence of age

In 2001, Sternberg and Grigorenko noted that while strategies may indicate certain cognitive orientations, one is likely to be more conscious of the strategies used than of the underlying cognitive orientations (Sternberg & Grigorenko; 2001). This observation renders the use of a strategy double in nature. Strategy can be considered a momentary phenomenon that is used in adaptation to the immediate context of the task at hand as well as a reflection of a more or less stable underlying cognitive style.

In chapter 5, age was found to have a positive influence on the Speaker and on the external orientations. However with advancing age children were progressively found to use less Hearer oriented strategies.

Studies on the strategic development of children are scarce. In chapter 5, I compared my results to the strategic awareness reported in adolescents aged 11 to 15 years (Tragant & Victori, 2006). In this study, the findings indicated the existence of age-related developmental stages of strategic competence. Interestingly, I observed a similar structure in the use of strategies that in my study are included in the Speaker orientation. I also observed a reversed use of strategies that depend on external sources such as the strategies of clarification or asking for external help akin to the strategies included in the External orientation (Tragant & Victori, 2006). Children in my study showed an increasing use of the External orientation with age, but in their study adolescent showed a decreasing use of strategies externally oriented.

Based on these shared structure and of the use of strategies I speculate a similar developmental pattern to be existent in young children, which would be a likely explanation to the linear progression of the three clusters that I observed in my data. More research is needed to explore this issue.

Limitations

In the next paragraphs, two limitations of the present thesis are discussed. One limitation is related to the interpretation of the role of age, the other limitation related to the interpretation of the communicative capacities of LLE children. Finally, I will elaborate on possible didactic applications of the results of the present thesis.

Interpretation of the age factor

Even though the data appear to indicate a developmental nature of strategic competence, with some components more clearly influenced by age than others, solid evidence cannot be provided by the studies in this thesis due to their cross-sectional nature. Indeed, longitudinal studies would be of great interest to confirm the dynamic development of strategic competence, even though they would present their own problems. A longitudinal analysis would imply a series of tests over years with the same cohort of children. One would have to use sufficient large test intervals to avoid the confounding interference of a learn-effect. This may be difficult to achieve because children that are schooled in International Schools are often subject to move from place to place.

It would also be worthwhile to expand the studies to an adolescent population to test the hypothesis of the developmental nature of cognitive orientations. Interestingly, the concepts of Speaker, Hearer and External orientations that I applied to the findings in children were in fact derived from the study of adults in the pragmatic field. The ultimate objective would be to follow the development of communicative competence in language learners from a very young age to accomplished adults.

Generalizing over tasks

In the four studies constituting this thesis, I have shown that there are differences between LLE and nLLE children in different aspects of metacognitive awareness. However this inference is based on the outcomes of two assignments (the movies paradigm and the imaginary friend in the park question). In order to incorporate the differences observed between tasks in the comparison of the different groups of children, all children should have been confronted with a larger sample of tasks. Due to the short interview time (13 minutes) adapted to the young age of the children (4 to

11), I did not plan children to take an extensive sample of exolingual tests. This means that, strictly speaking, generalization over tasks is not possible.

Generalizing over schools

Each school being located in a different country, possible differences due to country cannot be disentangled from differences due to the school itself. However, reactions of the children classified by school did not significantly differ from each other. Therefore, if school/country has an effect on metacognitive awareness, this effect must be minimal and may only show up with extremely large samples of children and schools.

Do the results of this thesis imply that LLE children are better communicators than nLLE children?

However tempting it is to draw the conclusion that LLE children are better communicators than nLLE children based on the results of the studies in this thesis, it is important to stress the necessity to first replicate these findings in independent studies.

There is also another limitation related to the design of the studies in this thesis. Test paradigms consisting of *simulated* exolingual situations and tasks do not permit a generalization towards *real* situations of communication.

Strictly speaking, the findings of the present study, in particular the level of positive attitude of the children toward this particular situation of communication influenced by LLE, allow us to do no more than speculate on the possible outcomes of a *real life* exposure to these situations.

Nevertheless, the present study does provide clear indications that support the relevance of the Language Learning Experience in the development of metacommunicative awareness. This awareness, tested in simulated exolingual situations, is likely to facilitate the treatment and outcome of real life exolingual situations of communication, but definitive evidence should be provided by additional studies. Following Schneider and Pressley, I propose that the knowledge concerning the existence of strategies and the willingness to use that knowledge may be a fair predictor of how children would react in real life situations (Schneider & Pressley, 1997; Brown, Bransford, Ferrara, & Campione, 1983).

Didactic perspectives

The implications that can be inferred from the current thesis are based on one central finding; that LLE has positive effects on metacommunicative competence. From this, and other observations in this thesis, three main didactic implications can be construed.

First, the benefits derived from the introduction of foreign language education in the classroom at a young age may go beyond the anticipated gain associated with the acquisition of the language *per se*. The results in this thesis demonstrate that the conscious language learning experience, associated with a foreign language education in a formal setting, has important positive effects on the development of metacommunicative competence. Thus, providing an LLE may in itself be a reason for the presence of a foreign language education.

Second, I have argued that providing an optimal guidance in the classroom in order to stimulate the occurrence of positive exolingual experiences may be a worthwhile component of language education. The usefulness of an enhanced strategic competence seems obvious with regard to the overall development of the child. As Sarangi already pointed out metacommunication ‘can be expected to operate in the instructional setting at a higher level of explicitness with regard to evaluation of both language use and interpersonal role-relationships’ (Sarangi, 1998:64).

Third, it is important to realize that exolingual exchanges are not restricted to the context of foreign language education. Simultaneous bilingual children or children native of a foreign language can particularly be expected to be confronted with exolingual situations of communication during regular classes and on the playground. It is very probable that these children will experience exolingual situations of communication when entering school, as discussed for instance in chapter one. If a child does not understand the teacher’s explanations, it becomes essential that he/she is able to use strategies to overcome this problem, for instance, by expressing this lack of understanding. Failure to solve such situations may engender strong frustration, as was also shown in the present thesis. It has been proposed that the experience of failure to problem solving may bring a negative self-esteem that would in turn negatively influence the developing capacities of the children (Adey, Robertson & Venville, 2002).

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Thus, a careful monitoring of the bilingual/ minority language child, with specific attention to how he/she functions in exolingual situation may be warranted.

To conclude, didactic implications of this thesis are based on the finding of enhanced communicative competence associated with LLE. Based on this I propose that the learning of a foreign language at school and from a very young age should be promoted. Not primarily because of the acquisition of the new language, but because it provides an LLE. I also suggest that foreign language teachers should integrate the active stimulation of positive exolingual experiences in their teaching methods, thereby encouraging a 'co-construction of knowledge and skill through evolving social situations in culturally structured situations' (Leseman, Rollenberg & Rispen, 2001:364).

Finally, I draw attention to the probability of negative exolingual experiences in simultaneous bilingual or foreign language native speakers in and outside of regular schools. I argue that active monitoring and intervention could avoid unnecessary negative exolingual experiences and promote the occurrence of positive experiences in this population. This is particularly relevant today, given the growing number of children with a plurilingual background in Europe and elsewhere.

Conclusion

Observing the reactions of children when confronted with exolingual situations of communication has provided a unique insight into how plurilingual competence emerges, and to what extent it may positively or negatively affect plurilingual communicative/ strategic construction. In 2004, Georgiades noted that it may be more important to identify factors that help children make sense of their metacognitive experiences than to debate about whether or not children are capable of displaying metacognitive awareness. Results of this thesis showed how LLE may help the children to make sense of their linguistic experiences, thereby displaying metacognitive awareness.

Based on the results of this thesis, I propose that all children may benefit from an LLE. Furthermore, the benefits of LLE identified in this study are social as well as metacognitive. LLE children have a better understanding of exolingual situations of communication than nLLE children (chapter 2). Consequently, LLE children are more willing to communicate than nLLE children (chapters 2 and 3) and LLE children are more likely to display strategies than nLLE children (chapter 4), particularly Speaker Oriented strategies, as reported in chapter 5.

In conclusion, the findings of this thesis provide relevant insights into the metacognitive development of plurilingual children. It demonstrates that it is not so much bilingualism *per se*, but rather the conscious experience of learning a new language that stimulates this development, ultimately contributing to a positive identity construction in plurilingual children.

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APPENDICES

Appendix 1

Examples of classification of children's answers to the sound and to the silent versions of the movies paradigm are presented along with their corresponding classifications. C = Child, R = Researcher

Question 1: What would you answer her / him?						
Child	Linguistic repertoire	LLE/ nLLE	Answer sound version	Answer silent version	Result sound version	Result Silent version
Child 1 Sebastian	Bilingual	nLLE	C: She speaks so quietly , I guess whether she speaks the same [...] as me. R: What do you want to answer? C: Ya. R: What do you want to say? C: NO!	C: I don't know. R: You don't know? C: no	The child answers: he gets a 1.	The child does not answer: he gets a 0.
Child 2 Thomas	Bilingual	nLLE	C: Not yet. R: Why not yet? C: I don't know yet what's her name.	C: No, I don't want to. R: Why not? C: I don't know who she is?	The child does not answer: he gets a 0.	The child does not answer: he gets a 0.
Child 3 Hayden	Monolingual in the process of learning French at school	LLE	C: I just like everything, and I like my mum and my daddy, and I like my baby and I like my sister.	C: Yes. She eats, she is saying, we eat bananas everyday and we like them. I don't like them because I don't like them. R: What don't you like? C: I don't like bananas or grand beans.	The child answers: she gets a 1.	The child answers: she gets a 1.

Question 2: What did you see in the movie?					
Child	Linguistic repertoire	Answer sound version	Answer silent version	Result sound version	Result Silent version
Child 4 Kayla	Bilingual nLLE	C: Oranges.	C: A woman, apples.	The child refers to the referee: she gets a 1.	The child refers to the referee and the referent: she gets a 1.
Child 5 Myel	Monolingual in the process of learning LLE	C: Hum, she gets ready to eat something?	C: I saw her give a little drink, some water.	The child has an integrated view of the situation: she gets a 2.	The child has an integrated view of the situation: she gets a 2.
Child Alan	Bilingual French and English nLLE	C: I saw that he opened the banana et then, he gives it to someone.	C: I watched, I watched her to[...] water. I think humm I could get water [...] and the boy said, I could get water to buy in the store.	The child has an integrated view of the situation: he gets a 2.	The child has an integrated view of the situation: he gets a 2.

Question 3, How did you do that, to understand?					
Child	Linguistic repertoire	Answer sound version	Answer silent version	Result sound version	Result Silent version
Child 6 Vance	Bilingual nLLE	C: Understand what? What she was saying? I understand words but if you can't hear something you can't understand!	C: I saw her moving.	The child refuses to consider an explanation: he gets a 0	The child has an integrated view of the situation. He gets a 2.
Child 7 Maxime	Bilingual nLLE	R: Then you understood? C: Yes. R: How did you do that? C: because.	C: No.	The child claims to have understood but refuses to consider an explanation: he gets a 0.	The child says he did not understand. He gets a 0.
Child 8 Sofia	Bilingual learning a third language LLE	C: I listened carefully how she talked even if I did not even know it was difficult to understand, it was a language I did not even know what she said but I listened carefully. I watched and I saw that she was offering me a glass of water so I understood.	C: I saw that she was making some gesture with her mouth to talk, and I understood that she was talking when she was doing like that with the mouth. I understood what she said she made the gesture like [she shows] I understood.	The child fully understands the situation: she gets a 2.	The child fully understands the situation: she gets a 2.

Appendices

Question 3, continued					
Child	Linguistic repertoire	Answer sound version	Answer silent version	Result sound version	Result Silent version
Child 9 Michael	Monolingual learning a second language LLE	C: I was paying attention and I was listening to what she said.	C: I was looking at him and I paid attention.	The child fully understands the situation: he gets a 2.	The child fully understands the situation: he gets a 2.

Appendix 2

The left-hand column illustrates the actual examples cited. The middle left-hand column indicates whether the child is LLE or nLLE. For readings convenience, the reader may find first the selected answers of the LLE children followed by those of the nLLE children. The middle right-hand column presents the comments made regarding the examples. The left hand column repertories the strategies identified.

Answers LLE children		
Examples of answers	Comments	Strategy used
'I just show what to do.'	He elaborates a plan proposing a strategy of mime. He shows determination to communicate. He focuses on that semiotic cue.	Anticipation Mime Cooperation Control of emotions Directed attention
'I am going to tell my dad and my mum. I leave. I fake that I can speak that language. I say: 'Do you speak English?' I play with him. I don't say anything.	He explicitly refers to an external help to intervene. He changes his mind, leaving and coming back. He proposes an explicit action to communicate, imitating his interlocutor, switching the language, renouncing to a spoken exchange.	Ask for assistance Control of emotions Cooperation Directed attention Code switching
'I try to learn what he is saying. When I get the hang of it, I speak just like him!'	He decides to concentrate on his interlocutor and prepares himself to imitate his potential friend. He cooperates and has a positive management of emotions. He wants to imitate his potential friend.	Anticipation Directed attention Cooperation Control of emotions Imitation

Appendices

Answers LLE children (continued)		
Examples of answers	Comments	Strategy used
<p>‘To speak like DEUTCH. I speak another language. I am going to speak half Swiss. Be nice, help him, play with him if he is sad.’</p>	<p>He identifies the problem and switches languages. He shows a clear control of his emotions by turning himself toward his potential friend. He proposes an explicit action to communicate</p>	<p>Directed attention Code switching Anticipation Control of emotions Cooperation</p>
<p>‘Is it a girl? I am going to teach her a language. She speaks in Russian and in French? I don’t know. I can play with her, I can show her, like that!’</p>	<p>He thinks about teaching his interlocutor one of his own languages. Then he reassesses the information source by trying to get some information about her linguistic background. He hesitates, and then claims that he does not know. He proposes to cooperate and to play with her by using mime.</p>	<p>Code switching Directed attention Clarification Anticipation Cooperation Mime</p>
<p>‘Me? I don’t know. Yes, without talking. Oh, yes, I know. I make some gesture. Or I can say a word, say a word. He can teach me how to speak that language and then I can speak with him.’</p>	<p>He thinks about the situation. He is willing to communicate but he first has to exclude the words. Then he reintroduces it claiming that he could say a word. He then argues that he could learn the language of his interlocutor from him and then he would be able to play with him.</p>	<p>Directed attention Cooperation Anticipation Mime Code switching Imitation Control of emotions Cooperation</p>

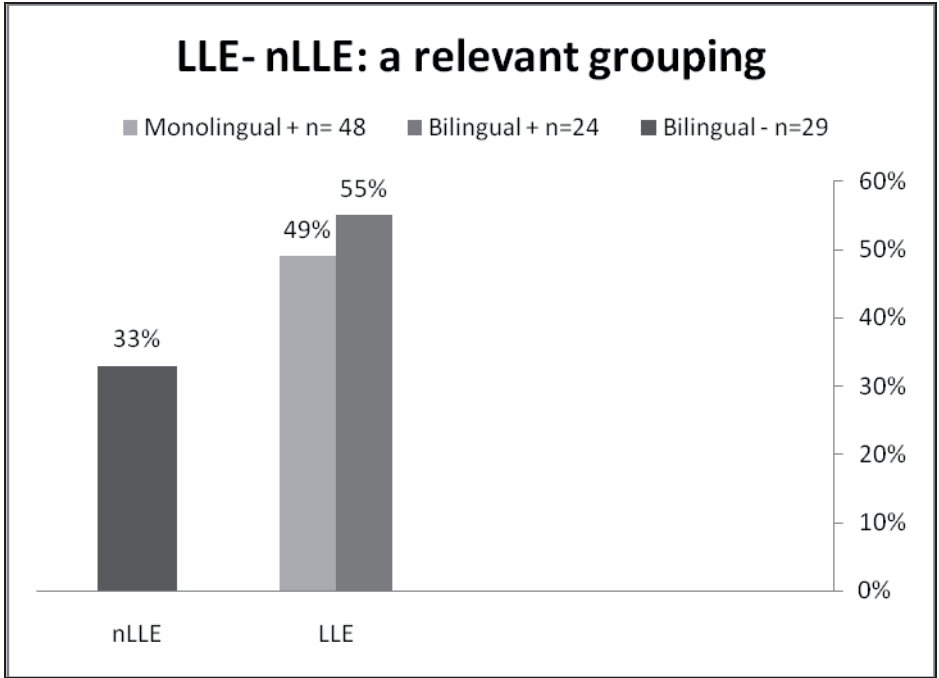
Appendices

Answers LLE children (continued)		
Examples of answers	Comments	Strategy used
'Yes, without talking. I make some gesture. Or I can say a word. Learn to speak that language.'	He accepts to cooperate. He excludes the words and proposes to mime. He has a positive management of his emotions. He proposes to learn the language of his interlocutor.	Cooperation Anticipation Mime Control of emotions Directed attention Imitation
'Well, I guess he speaks Italian. I have to speak Italian. Then I can play.'	He focuses on the linguistic cues. He thinks about switching the language. He realizes that he does not know the language that he assumes that his interlocutor may speak. He decides that he may learn it and then play. He does not show any frustration feeling.	Directed attention Code switching Anticipation Cooperation Imitation Control of emotions

Appendices

Answers nLLE children		
Examples of answers	Comments	Strategy used
‘I am not happy. I am not going to play because I don’t understand the language.’	She makes clear that she does not like the situation. She refuses to elaborate a plan or to ask for more information.	None
‘She speaks Italian? She speaks anything? French? I don’t know. I do nothing. I don’t play with her.’	She tries to switch the language. She reflects upon the situation but she does not think about anything away from the linguistic cues. She reassesses the information source asking about the child’s linguistic repertoire. She renounces to the play-date.	Code- switching Directed attention Anticipation Clarification
‘Does she speak French or English? Does she speak Spanish? What do you speak? No, I don’t play with her. What is her name?’	She focuses on the linguistic cues. She reassesses the information source asking about her linguistic repertoire. She renounces to the play-date. She does not show any frustration feeling.	Directed attention Code switching Anticipation Control of emotions
‘I speak Spanish to her, Arabic. I don’t know. I don’t play with her.’	She proposes to switch code, directing her attention on the linguistic cues. She renounces to the play-date without showing any frustration feeling.	Code switching Directed attention Control of emotions
‘I find another person. I go back home.’	The situation is refused right away. The child proposes to find another potential friend. He renounces to the play-date going back home.	

Appendix 3



Homogeneity of the LLE group: the LLE group is composed of monolingual and bilingual children with an LLE. The table illustrates that the average use of the strategies in the LLE group is not driven by the results of one of its subgroups alone.

Appendix 4

Language biographical approach

For each child information was gathered about his/her linguistic repertoire, the age of exposure and the context of acquisition of each language (where, with whom, and at what age). In addition data are reported about gender, country of schooling and age of each child at the moment of the enquiry.

Child	Gender	Type of bilingualism 0= monolingual LLE 1= bilingual nLLE 2= bilingual LLE	Country of schooling 1 = NL 2= The U.S.A. 3= Switzerland	Languages acquired before age 4	Language Learning Experience	Age
1	M	0	1	French	English	8
2	M	0	1	Dutch	French	10
3	F	0	1	French	English	10,5
4	M	0	1	Dutch	French	9
5	M	0	1	Dutch	French	8
6	M	0	1	Dutch	French	11
7	M	0	1	Dutch	French	12
8	F	0	1	French	Dutch, English	8
9	M	0	1	Dutch	French, English	9
10	F	0	1	Dutch	French	9
11	F	0	1	Dutch	French	10
12	F	0	1	French	English, Dutch	9
13	M	0	1	Dutch	French	11
14	M	0	1	Dutch	French	7
15	M	0	1	Dutch	French	8

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Child	Gender	Type of bilingualism 0= monolingual LLE 1= bilingual nLLE 2= bilingual LLE	Country of schooling 1 = NL 2= The U.S.A 3= Switzerland	Languages acquired before age 4	Language Learning Experience	Age
16.	F	0	2	English	French	5
17.	M	0	2	English	French	5
18.	F	0	2	French	English	6
19.	M	0	2	English	French	6
20.	F	0	2	English	French	6
21.	F	0	2	English	French	6
22.	M	0	2	English	French	6
23.	M	0	2	English	French	5
24.	M	0	2	French	English	6
25.	F	0	2	English	French	6
26.	M	0	2	English	French	6
27.	M	0	2	English	French	4
28.	F	0	2	Italian	French, English	4
29.	M	0	2	English	French	6
30.	M	0	2	English	French	6
31.	F	0	2	English	French	6
32.	F	0	2	English	French	5
33.	F	0	2	French	English	4

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Child	Gender	Type of bilingualism 0= monolingual LLE 1= bilingual nLLE 2= bilingual LLE	Country of schooling 1 = NL 2= U.S.A 3= Switzerland	Languages acquired before age 4	Language Learning Experience	Age
34.	M	0	2	English	French	6
35.	M	0	2	English	French	6
36.	F	0	2	English	French	6
37.	F	0	2	English	French	6
38.	F	0	3	French	German	6
39.	F	0	3	French	German	5,6
40.	F	0	3	French	German	6
41.	M	0	3	French	German	5
42.	M	0	3	French	German	6
43.	F	0	3	French	German	6
44.	M	0	3	French	German	6,6
45.	M	1	1	French, Dutch	German	9
46.	F	1	1	Dutch, French	German	10
47.	M	1	1	French, English	German	9
48.	F	1	1	French Russian	German	10
49.	M	1	2	French, English	German	6
50.	M	1	2	French, English	German	6
51.	F	1	2	French, English	German	5

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Child	Gender	Type of bilingualism 0= monolingual LLE 1= bilingual nLLE 2= bilingual LLE	Country of schooling 1 = NL 2= The U.S.A. 3= Switzerland	Languages acquired before age 4	Language Learning Experience	Age
52.	F	1	2	French, English		6
53.	M	1	2	French, English		4
54.	M	1	2	French, English		6
55.	F	1	2	French, English		6
56.	M	1	2	French, English		6
57.	F	1	2	French, English		6
58.	M	1	2	English, French		6
59.	F	1	2	English, French		6
60.	F	1	2	French, English		6
61.	F	1	2	English, French		4
62.	F	1	2	French, English		6
63.	F	1	2	French, English		6
64.	M	1	2	English, French		6
65.	M	1	2	French, English		4
66.	F	1	2	French, English		6
67.	M	1	2	English, French		5
68.	M	1	2	French, English		4
69.	M	1	2	French, English		5

Appendices

Child	Gender	Type of bilingualism 0= monolingual LLE 1= bilingual nLLE 2= bilingual LLE	Country of schooling 1 = NL 2= U.S.A. 3= Switzerland	Languages acquired before age 4	Language Learning Experience	Age
70.	M	1	2	English, French		6
71.	M	1	3	Swiss German, French		6
72.	M	1	3	French, German		5,6
73.	F	1	3	German, French		5,6
74.	F	2	1	French, English	Dutch	9
75.	F	2	1	French, Arabic	Dutch, English	8
76.	F	2	1	Dutch, Lebanese	French	11
77.	M	2	1	English, French	Dutch	9
78.	M	2	1	French, English	Dutch	11
79.	F	2	1	Dutch, Persian	French	11
80.	M	2	1	French, Dutch	English	8
81.	M	2	1	French, Dutch	English	10
82.	F	2	1	Dutch, French	English	10,5
83.	M	2	2	French, Dutch	English	4
84.	F	2	2	French, Dutch	English	6
85.	F	2	2	English, Korean	French	6
86.	F	2	2	French, German	English	6
87.	F	2	2	English, Russian	French	6

Appendices

Child	Gender	Type of bilingualism 0= monolingual LLE 1= bilingual nLLE 2= bilingual LLE	Country of schooling 1 = NL 2= U.S.A. 3= Switzerland	Languages acquired before age 4	Language Learning Experience	Age
88.	F	2	2	English, Italian	French	6
89.	F	2	2	French, English	Spanish	4
90.	M	2	2	English, French Creole	French	5
91.	F	2	2	French, Russian	English	6
92.	F	2	2	English, Spanish	French	6
93.	M	2	3	French, Italian	German,English	6
94.	M	2	3	Swedish, French	German	5,6
95.	M	2	3	French, Danish	German	6,3
96.	M	2	3	French, English	German	6
97.	M	2	3	Swiss German, French	German	6
98.	F	2	3	French, Portuguese	German,	6
99.	M	2	3	French, Swiss German	English	5,6
100.	M	2	3	French, Arabic	German	5,6
101.	M	2	3	French, Russian	German	6

**RESUMÉ DE LA THÈSE
EN FRANÇAIS**

**CE QUE LES ENFANTS SAVENT
DE LA COMMUNICATION**

Ce que les enfants savent de la communication

Multilinguisme et situations de communication exolingue

L'un des effets de la globalisation récente est l'augmentation des situations de communication dont le bon déroulement est gêné par une maîtrise insuffisante de la langue de l'échange par les participants. Ces situations de communication définies comme exolingues sont caractérisées par une connaissance inégale de la langue d'échange utilisée par les participants (voir par exemple Alber & Py, 1985; Le Pichon, 2008). Il peut s'agir d'une différence infime, telle une différence d'accent, mais cette différence de maîtrise de la langue cible peut aller jusqu'à une absence de langue commune, situation qualifiée d'exolingue extrême. Une mauvaise gestion de la situation de communication exolingue risque de conduire les participants à interrompre l'échange. Pour éviter ce dénouement, les participants à l'échange doivent faire preuve d'une intention de communication soutenue et utiliser des stratégies de communication. Ces situations de multilinguisme exolingue constituent l'un des défis majeurs de notre monde (voir par exemple Dewaele & van Oudenhoven, 2009 ; Pavlenko & Blackledge, 2004; Bhatia & Ritchie, 2004 ; Lasagabaster, 2008).

Lorsque la langue de l'interaction est, soit partiellement, soit totalement inconnue de l'un des participants à l'échange, les intervenants sont contraints de puiser dans leurs ressources, autres que linguistiques. Un certain nombre de stratégies sont à la disposition de chacun pour pallier ce manque. Montrer du doigt ce que l'on désire dans le cas d'un échange commercial, imiter ce que l'on veut exprimer, ou tenter d'engager la conversation dans une autre langue sont autant de stratégies qui peuvent se révéler efficaces. Mais il y en a d'autres. La résolution d'un problème de communication, conséquence d'un manque de ressources linguistiques au sens strict du terme dans la langue de l'échange, peut tirer profit de différentes stratégies, en particulier de stratégies de communication.

Suivant la définition d'Oxford (2003: 274¹), 'une stratégie est un plan conscient destiné à atteindre un but.' Cette définition très large met en avant quatre composantes essentielles : conscience, contrôle, intention et but visé.

¹ Traductions de l'auteure de cette thèse

La résolution d'un problème posé par la communication exolingue paraît, a priori, simple. Mais en réalité, cette situation exige des participants non seulement un contrôle important sur eux-mêmes, mais aussi une intention de communication soutenue, le plus difficile étant de ne pas renoncer à l'échange. Pour cela, il est avant tout indispensable d'avoir conscience d'un certain nombre de stratégies à la disposition de chacun pour résoudre le problème en question. De la même manière, pour Goldstein et Levin, la résolution d'un problème ne peut avoir lieu que lorsque le but visé ne peut être atteint de manière automatique, c'est-à-dire qu'il requiert un certain degré de compétence stratégique (Goldstein & Levin, 1987).

Les stratégies de communication ont été étudiées de manière extensive chez les adultes. Ces recherches ont confirmé le lien intrinsèque qui relie les stratégies de communication à l'intention de communiquer et à un degré fort de contrôle sur le déroulement de l'échange (Tardif, 1992; Kasper & Kellerman, 1997; Wenden, 1998; Rubin & Thompson, 1994; Lüdi, 2005; Oxford, 1990, 2001, 2008; Grenfell & Macaro, 2007; White, 2008). En revanche, les recherches concernant les stratégies de communication chez les enfants sont encore rares (Chamot & El'Dinary, 1999; Benson, 2009). L'accès aux stratégies de communication et l'intention de les utiliser pour interagir constituent **la compétence stratégique**. L'étude de la compétence stratégique chez les enfants est au cœur de cette recherche.

Lorsqu'un enfant par exemple, en vacances dans un pays étranger, veut aller s'acheter une glace et choisir ses parfums, il doit faire preuve d'une intention de communication forte qui le pousse à s'engager dans l'interaction exolingue (voir par exemple Dörnyei & Scott, 1997:179). Ce but communicatif (dans le cas de l'enfant chez le marchand de glaces, il s'agit de pouvoir manger la glace) correspond à une intention de communication (MacIntyre, Clément, Dörnyei, & Noel, 1998). Cette intention de communication, composant essentiel de l'interaction exolingue, met en exergue l'importance de la détermination, ou de son absence, lors du déroulement de l'échange exolingue. Elle est marquée par l'utilisation de stratégies que les interlocuteurs emploient pour soutenir l'échange et pour obtenir ce qu'ils désirent à l'issue de l'échange. Il est donc essentiel, quel qu'en soit le déroulement, de ne pas renoncer à l'échange malgré les obstacles qui peuvent se présenter (incompréhension, gêne, remarques...).

La bonne gestion de cette situation peut être particulièrement déterminante pour les enfants parlant une langue étrangère lorsqu' ils arrivent à l'école. En effet, de nos jours, du fait de l'immigration, le multilinguisme est le lot quotidien de la majorité des écoles primaires en Europe (voir par exemple Dewaele & van Oudenhoven, 2009; Lasagabaster, 2008; Moore, 2006; Hanson, Boogaard & Herrlitz, 2003; Tuijl, Leseman & Rispen, 2001).

L'une des conséquences de l'omniprésence du multilinguisme des enfants est que la ou les langues des enfants issus de l'immigration ne sont pas fréquemment représentées à l'école (Castellotti & Moore, 2008; Castellotti & Moore, 2006; Miller, 2004). L'éducation d'un enfant dans un système éducationnel monolingue qui exclut la langue maternelle de l'enfant peut être considéré comme submersif. De fait, ce terme ne réfère pas à un système en soi, mais il renvoie simplement à l'éducation des enfants qui n'ont d'autre choix que celui de fréquenter l'école de leur environnement et d'être scolarisés dans une langue qu'ils ne maîtrisent pas. Comme le confirment les recherches entreprises auprès d'enfants migrants dans le monde entier, une majorité d'enfants confrontés à cette situation doivent surmonter des difficultés importantes qui peuvent les conduire à l'échec scolaire (par exemple, Cummins, 2000; Benson, 2009; Mohanty, 2009; Jhingran, 2009).

Dans le cadre de l'école, une intention soutenue de communication et l'utilisation de stratégies de communication deviennent une question de survie sociale et cognitive pour les enfants régulièrement confrontés à des situations d'incompréhension. Il peut être particulièrement difficile pour un enfant qui ne comprend pas un texte, une expression, une phrase, ou même un mot, de manifester son incompréhension. Or l'interruption du cours de l'échange engagé, par exemple pour demander de l'assistance ou des éclaircissements, est nécessaire si l'enfant ne veut pas perdre rapidement le fil de ce qui est enseigné/partagé. En effet, renoncer à se manifester pourrait avoir des conséquences néfastes pour le développement cognitif et affectif de l'enfant. La compétence stratégique est donc une condition nécessaire au développement harmonieux des enfants plurilingues. Dans le cas de situations de communication exolingue extrême, c'est-à-dire lorsque les interlocuteurs ne partagent aucune langue, la compétence stratégique est indispensable. Elle repose alors principalement sur les constituants non-verbaux d'un échange. Ces éléments, ainsi que les éléments verbaux interprétables tels que par exemple, l'intonation, constituent la métacommunication.

Lors d'une situation de communication exolingue extrême, les enseignants tout autant que les enfants, doivent prendre conscience des ressources métacommunicatives dont ils disposent. On appelle ces ressources indices de contextualisation (Gumperz, 1983). Ces indices comprennent tous les éléments du contexte qui peuvent influencer l'interprétation du sens de l'échange et contribuent à la construction de l'interprétation du message transmis ; ils peuvent même en modifier le sens. Gestuels, prosodiques, spatiaux et kinésiques, ils incluent l'expression du visage, des yeux. La conscience/connaissance de ces indices de contextualisation est appelée la conscience métacommunicative. La compétence stratégique et la conscience métacommunicative sont toutes deux englobées dans le concept de **métacognition**.

Lors d'un échange exolingue extrême, les participants peuvent utiliser certaines des stratégies suivantes, seules ou en combinaison. Dans le cadre de cette thèse, j'ai observé la présence ou l'absence des neuf stratégies suivantes :

1. L'attention dirigée : l'enfant peut se concentrer sur un indice sémiotique, (porteur de sens), pour tenter de s'ajuster.
2. L'anticipation : l'enfant peut élaborer un plan d'action.
3. Le contrôle des émotions : l'enfant peut chercher à contrôler positivement ses émotions et ne pas avoir peur de manifester une intention de communiquer.
4. La coopération : l'enfant peut proposer une action explicite dans le but de communiquer.
5. Le mime.
6. Le changement de code : l'enfant peut proposer une autre langue.
7. La demande d'assistance : l'enfant peut demander de l'aide à l'extérieur de l'interaction.
8. L'imitation : l'enfant peut chercher à imiter son interlocuteur.
9. La clarification : l'enfant peut tâcher d'obtenir plus d'informations en demandant des explications supplémentaires.

L'intention de communication et les stratégies de communication sont au cœur de cette thèse. Ces deux éléments, c'est-à-dire, ce que les enfants perçoivent de la situation exolingue et la manière dont ils gèrent cette situation, sont évalués à travers leur identification. En effet, savoir ce que les enfants perçoivent, leur (in)compréhension, le contrôle qu'ils ont de la situation de communication exolingue et la

manière dont ils pensent résoudre le problème posé, est indispensable si l'on veut pouvoir, avec leurs enseignants et leur famille, les aider efficacement à se développer le mieux possible affectivement et cognitivement (voir en particulier Lüdi, 2005).

Les informations concernant le développement de la métacognition chez les très jeunes enfants sont encore rares et le sont encore plus lorsqu'il s'agit du développement de la compétence stratégique (voir plus haut). La compétence stratégique est centrale dans le concept de métacognition (Brown & Day, Beacco, 2007). En 2004, Flavell définissait la métacognition en tant que 'toute connaissance ou activité cognitive qui prend pour objet l'organisation d'une activité cognitive' (Flavell, 2004: 274²).

Apprendre une langue étrangère inclut des processus cognitifs tels que mémoire, compréhension et attention (voir par exemple Kemp, 2007; Stern, 1975; Oxford, 1990; Rubin, 1975). De ce fait, l'apprentissage d'une langue étrangère à un âge où le sujet peut être conscient du fait qu'il apprend une nouvelle langue, *est* une activité métacognitive.

La question est alors de savoir si le bilinguisme, en soi, pourrait augmenter la conscience communicative des enfants bilingues comme certains chercheurs l'ont proposé (pour un compte-rendu voir Cenoz & Jessner, 2000). En effet, les enfants bilingues simultanés sont, par exemple, capables de changer de langue en fonction de la langue qu'ils pensent être celle de leur interlocuteur dès un très jeune âge (2,5 ans). Ceci ne peut pas être le cas de l'enfant monolingue qui n'a qu'une langue à son répertoire. Pour cette raison, il m'a semblé que cette capacité des enfants bilingues simultanés à changer de langue ne permettait pas de conclure à la supériorité communicative des enfants bilingues simultanés par rapport aux enfants dits 'monolingues'.

Parallèlement, à partir des années 90, certaines études ont commencé à constater l'absence de différence entre des groupes d'enfants bilingues et monolingues (Bialystok, 2001; Bialystok, Majumder & Martin, 2003). D'autres ont noté de meilleures performances métalinguistiques d'enfants exposés au bilinguisme lors d'une scolarisation récente en milieu immersif par rapport à des enfants bilingues simultanés scolarisés dans des écoles monolingues (Rubin & Turner, 1989). D'autres encore ont observé la disparition progressive des avantages des enfants bilingues à la fin du cours préparatoire (Campbell & Sais, 1995; Yelland, Pollard & Mercuri, 1993; Bruck & Genesee, 1995). Ces aspects paradoxaux ont

² Traduction de l'auteure

conduit certains chercheurs à proposer que le bilinguisme en soi pouvait ne pas être la source des performances observées.

Pour comprendre comment se développent les enfants plurilingues, il est nécessaire d'examiner quels sont les facteurs qui seraient susceptibles de développer ou de freiner la conscience métacognitive des enfants. Dans cette recherche, j'ai cherché à isoler certains de ces facteurs à travers une étude du développement de la conscience métacommunicative des enfants plurilingues face à des situations de communication exolingue extrême.

Au cours de cette thèse, l'influence potentielle de quatre facteurs est observée :

- Le bilinguisme simultané.
- L'apprentissage explicite d'une langue nouvelle.
- L'âge de l'enfant.
- L'orientation cognitive de chaque enfant.

L'examen de l'influence de ces facteurs sur la conscience métacommunicative des enfants a été conduit à partir d'une approche par les biographies langagières.

L'approche par les biographies langagières consiste, pour le chercheur, à rassembler une histoire linguistique détaillée de chaque enfant et d'estimer comment chaque langue (ainsi que leurs contacts) interviennent dans cette histoire. Le chercheur explore les expériences d'acquisition/apprentissage de la ou des langues en fonction des différents contextes d'acquisition. Les résultats obtenus comprennent le contexte social d'acquisition de chacune des langues comprises dans le répertoire linguistique de l'enfant plurilingue, la nature de la langue familiale et de son histoire, la perception que l'enfant a de la ou de ses langues et l'ordre d'acquisition des langues (voir par exemple, Castellotti & Moore, 2006; Molinié, 2006; Lüdi, 2005; Franceschini, Zappatore, Lüdi, Radü, Wattendorf & Nitsch, 2001; Porquier & Py, 2006).

Cette approche met en avant le concept de plurilinguisme. Ce terme contient plus que la connaissance d'une langue supplémentaire à laquelle réfère la notion de bilinguisme. Le terme bilingue, jusque récemment associé à un degré de développement linguistique idéal des langues incluses dans le répertoire de chacun où chaque langue serait gérée indépendamment des autres, excluait ainsi la plupart des polyglottes qu'ils soient enfants ou adultes. Lorsqu'un sujet dispose de plusieurs langues et a fortiori un enfant, le plus souvent, ces langues ne sont pas

utilisées dans le même contexte, ni avec les mêmes personnes et elles ne sont pas utilisées non plus pour parler de la même chose. Reconnaisant le caractère hétérogène de ce répertoire, Coste, Moore et Zarate proposaient en 1997, un contenu du terme **plurilingue** qui englobe les notions de langues, cultures, développement et vitalité, c'est-à-dire, un ensemble de compétences plus souple que les compétences strictement linguistiques contenues dans le terme bilingue.

Ma recherche est fondée sur ce concept. Cela signifie que tous les enfants qui ont été exposés à plus d'une langue sont considérés comme étant plurilingues, même si leur niveau de compétences dans la langue étrangère/seconde est extrêmement limité.

Effets de l'apprentissage d'une langue étrangère

Ainsi que le proposait Bialystok en 2003, l'hétérogénéité des répertoires linguistiques des enfants bilingues pourrait expliquer, ne serait-ce qu'en partie, les absences observées d'avantages bilingues.

En effet, un certain nombre de facteurs susceptibles d'intervenir dans le processus de l'éducation plurilingue pourraient en influencer l'issue.

L'un de ces facteurs est évidemment l'apprentissage d'une langue nouvelle. En 2002, le conseil de l'Europe a adopté une politique linguistique éducationnelle pour s'assurer qu'une, ou idéalement, deux langues étrangères soi(en)t enseignée(s) à partir du cours préparatoire dans chacune des écoles primaires en Europe. Cette politique, qui vise à augmenter la maîtrise des compétences des enfants en langues étrangères (Conseil de l'Europe, 2002: 3), semble compliquer particulièrement la situation des enfants déjà plurilingues enrôlés dans des systèmes éducatifs monolingues. Pour ces enfants, la maîtrise de la langue de l'école est un but en soi et malgré cela, au lieu de soutenir ces enfants dans leur progression en langue de l'environnement, on ajoute une langue supplémentaire à leur répertoire.

De fait, les recherches conduites jusqu'à aujourd'hui suggèrent que l'introduction d'une langue supplémentaire dans le répertoire des enfants plurilingues ne se fait pas au détriment du développement des enfants en terme de résultats scolaires (Genesee, 2007; Goorhuis & De Bot, 2005). Par exemple, Demont affirme que l'apprentissage d'une langue étrangère augmente les capacités de lecture d'un très jeune enfant (Demont, 2001). Un autre exemple est celui de l'étude hollandaise, menée à Rotterdam, lors de l'introduction d'une langue étrangère à la maternelle. Les

chercheurs ont montré que le développement linguistique en néerlandais des enfants de classes maternelles, inclus dans le programme d'introduction à l'anglais, n'était pas ralenti par cet enseignement. Ils ajoutent que l'expérience d'apprentissage de la langue étrangère de ces enfants leur a semblé renforcer celui de la langue de l'école, le néerlandais (Goorhuis & De Bot, 2005).

Il semble donc qu'il y ait des bénéfices associés à l'apprentissage d'une langue étrangère en bas âge dans un contexte scolaire qui dépassent ceux de l'acquisition de la langue en question. Si cela est vrai, quelle en est la cause?

Lors d'un cours de langue étrangère, l'enseignant crée des situations de communication artificielle pour lesquelles il est demandé à un apprenant de communiquer dans une langue qu'il ou elle ne maîtrise pas encore. En 1962, Vygotsky proposait la confrontation à de nouvelles langues comme facilitateur de l'émergence d'une conscience de la langue elle-même et d'un certain contrôle sur son développement par l'individu (Vygotsky, 1962).

L'apprentissage devient, selon ses propres mots, un processus conscient, particulièrement développé par une instruction formelle et explicite. A titre d'exemple, pour apprendre notre première langue, aucun d'entre nous n'a commencé par l'alphabet. En revanche, l'apprentissage d'une langue étrangère en contexte formel implique le plus souvent une réflexion sur la situation avant qu'elle ait lieu et après qu'elle a eu lieu. Un raisonnement se met en place qui implique plusieurs étapes. Ce raisonnement participe au processus communicatif dans un cours de langue, tout en générant potentiellement une certaine conscience des situations de communication exolingue.

Adoptant l'hypothèse que l'apprentissage d'une langue étrangère à l'école pourrait générer des avantages au niveau du développement cognitif général de l'enfant, j'ai choisi d'explorer la conscience de communication des enfants en situations de communication exolingue. Au cours de cette thèse, l'expérience d'apprentissage d'une langue étrangère en contexte formel est appelée *Language Learning Experience*, abrégé LLE. Cette expérience d'apprentissage est opposée à nLLE, abrégé de l'anglais, *non Language Learning Experience*, soit *sans Expérience d'Apprentissage de la Langue Etrangère*.

LLE

Les enfants qui sont inclus dans le groupe LLE ont appris ou sont en apprentissage d'une seconde ou d'une troisième langue dans un cadre formel d'apprentissage. Par exemple, on peut imaginer un enfant de parents francophones et qui déménage pour les Etats-Unis d'Amérique après l'âge de quatre ans. Il est alors inscrit à l'École française Internationale et est exposé pour la première fois à des cours d'anglais. Il est considéré comme ayant une LLE.

nLLE

Les enfants compris dans le groupe nLLE ont été exposés à une deuxième langue avant l'âge de quatre ans. Si après cet âge, ils n'ont pas appris de nouvelle langue, ils sont considérés comme nLLE c'est-à-dire comme n'ayant pas cette expérience d'apprentissage d'une langue étrangère. Par exemple, un enfant dont les parents parlent français et anglais à la maison et qui est inscrit à l'École Internationale Française aux Etats-Unis d'Amérique est considéré comme étant nLLE.

J'ai donc comparé dans mes recherches les réactions des enfants LLE et nLLE soumis à la simulation de rencontres impliquant des situations de communication exolingue. Il s'agissait de voir si l'apprentissage d'une langue étrangère pouvait effectivement présenter des avantages en termes de métacognition.

Donc, alors que le bilinguisme est le plus souvent considéré comme la source d'avantages métacognitifs par rapport au monolinguisme par le biais d'un développement exacerbé de la conscience métalinguistique (voir Cenoz & Jessner, 2000), j'ai émis l'hypothèse selon laquelle ces avantages métacognitifs pourraient découler d'un aspect particulier du bilinguisme qui n'est pas limité aux enfants bilingues au sens strict, c'est-à-dire de **l'expérience consciente d'apprentissage d'une langue étrangère**.

A partir d'une description précise du répertoire linguistique des enfants, je n'ai pas seulement comparé les réactions des enfants bilingues et monolingues, j'ai aussi comparé celles des enfants LLE et nLLE.

Hypothèse principale

L'expérience consciente d'apprentissage d'une langue génère des avantages qui vont au-delà des avantages linguistiques purs tels que la connaissance d'une langue supplémentaire.

En particulier, LLE pourrait être un facteur plus pertinent pour le développement de certains aspects de la conscience métacognitive des enfants que le bilinguisme en soi.

Les aspects observés dans cette thèse sont :

- La perception de la situation de communication exolingue extrême au-delà du niveau linguistique, c'est-à-dire, la *conscience métacommunicative* des enfants.
- *L'intention de communication* des enfants en situation de communication exolingue.
- La capacité qu'ont les enfants d'envisager des stratégies pour gérer l'échange exolingue, soit la *compétence stratégique* des enfants.

Description et méthodes des différentes étapes de la recherche qui constituent cette thèse

Pour vérifier l'hypothèse de l'effet positif de LLE sur certains aspects de la conscience métacognitive, j'ai interrogé 101 enfants selon un protocole semi-standardisé. L'ensemble des résultats de cette thèse décrit de manière extensive les réactions de ces enfants confrontés à différentes situations de communication exolingues imaginaires ou représentées par un film court.

Pour comprendre les perceptions que ces enfants ont des situations de communication exolingue et comment ils les traitent, j'ai travaillé dans trois écoles dans trois pays différents : aux Pays-Bas, aux Etats-Unis et en Suisse.

Dans tous les cas, les enfants se sont réjouis de pouvoir s'échapper de la classe pour quelques minutes. Ils ont accepté de se pencher avec moi sur les situations de communication exolingue que je leur ai présentées et de répondre à mes questions concernant leur biographie langagière.

Caractéristiques qui différencient ma recherche des travaux antérieurs

Ma recherche inclut des groupes d'enfants plurilingues qui diffèrent en âge, pays de scolarisation, sexe, répertoire langagier et biographies linguistiques (incluant des enfants monolingues apprenant une langue supplémentaire, des enfants bilingues, des enfants bilingues apprenant une troisième langue). **Cette variété et une description précise des biographies langagières** de chacun des enfants au moment de l'enquête m'ont permis de comparer les réponses des enfants en prenant chacune de ces variables en compte (Véronique, 2005).

Ensuite, **le recueil des données** effectué entre septembre 2004 et septembre 2006 a été fait dans le cadre d'écoles françaises internationales uniquement, une dans chaque pays. Dans chaque école, les enfants fréquentaient les mêmes classes. Ce choix a été déterminé par plusieurs critères. Le premier consistait à réduire le champ des types de communications exolingues auxquels les enfants sont confrontés tout en bénéficiant d'approches éducationnelles similaires.

Les écoles internationales sont caractérisées par l'application de méthodes d'enseignements variées et accueillent des groupes d'enfants aux biographies langagières extrêmement variées. La variation majeure entre ces écoles est la répartition du temps alloué pour chaque langue à l'école. Cependant, chacune de ces écoles tend à offrir à chaque enfant la possibilité de développer une compétence linguistique se rapprochant au maximum d'une compétence 'native'.

Cela signifie que chacune de ces écoles propose :

- Une exposition suffisante à chacune des langues de l'école.
- Une insistance sur la compréhension plutôt que sur la structure de la/des langues.

Le temps consacré pour l'instruction explicite de chaque langue dans un cours qui lui serait explicitement consacré, est donc minimale, au moins en ce qui concerne les petites classes. En revanche, si un enfant nécessite plus d'aide, une instruction explicite peut être ajoutée à son curriculum. Dans chacune des écoles, il y a donc des enfants qui parlent l'une ou l'autre des langues de l'école, ou bien encore les deux (soit des enfants monolingues en apprentissage d'une langue 2, soit des enfants bilingues). D'autres enfants ne parlent pas du tout l'une ou l'autre des langues de l'école lorsqu'ils y entrent (enfants monolingues ou bilingues dans une ou deux autres langues). Ces cas sont cependant plus rares. Aux Pays-Bas, en Suisse ou aux Etats-Unis, les trois écoles offraient la possibilité de

suivre des cours dans d'autres langues, (en néerlandais, en allemand ou en espagnol), dès le cours préparatoire.

Le **protocole** utilisé est un questionnaire semi-standardisé constitué par une série de questions pour la plupart ouvertes. Ainsi que le proposent Hurd et Lewis, répondre à des questions ouvertes et résoudre des problèmes en pensant à haute voix offrent de nouvelles possibilités pour recueillir des données innovatrices en matières de stratégies de communication (Hurd & Lewis, 2008). De plus, à cause de l'âge des enfants (4-11 ans), un questionnaire écrit aurait désavantagé les enfants plus jeunes ou les enfants aux compétences de lecture et d'écriture moins développées. Finalement, il m'a semblé essentiel de donner à l'enfant la possibilité de changer de langue s'il le désirait.

Résumé des chapitres de la thèse

Le facteur qui est exploré dans cette thèse est *l'expérience d'apprentissage d'une langue à un âge auquel l'enfant peut prendre conscience de cet apprentissage*. Ce concept est abrégé LLE.

Le but qui sous-tend cette thèse est de comprendre dans quelle mesure le contexte d'apprentissage d'une langue supplémentaire peut influencer les compétences communicatives des enfants.

Chapitre 2

Language Learning Experience in school context and metacognitive awareness of multilingual children. *International Journal of Multilingualism*. *International Journal of Multilingualism*, 1479-0718, Volume 6, Issue 3, Pages 258 – 280.

Au cours de ce chapitre, j'examine comment les enfants perçoivent les situations exolingues de communication, ce qu'ils comprennent de ces situations et comment ils les traitent.

L'hypothèse posée est que les enfants LLE ont une meilleure perception de la situation exolingue extrême proposée que les enfants nLLE en particulier en ce qui concerne leur capacité à percevoir un message.

J'ai aussi émis l'hypothèse selon laquelle les différences observées entre les enfants pourraient être dues au fait que les enfants LLE sont plus conscients des indices de contextualisation que les enfants nLLE.

Afin de tester ces hypothèses, 54 enfants ont été confrontés à deux courts extraits filmés : l'un avec le son qui propose une situation jouée dans une langue inconnue de l'enfant, et l'autre présentant une situation similaire, mais cette fois, visionnée sans le son.

Le film présente un acteur/une actrice souriant/e en train de couper un fruit ou de remplir un verre d'eau. Il/elle le présente à la caméra tout en parlant dans une langue étrangère. Le monologue se termine par une question révélée par une intonation montante et par le geste de proposer le fruit/le verre à la caméra. Après chaque version du film, j'ai posé aux enfants trois questions :

1. Qu'est ce que tu voudrais lui répondre ?
 2. Qu'est ce que tu as vu dans le film ?
 3. Est-ce que tu as compris ? Comment as-tu fait pour le comprendre ?
- J'ai analysé les réactions des enfants à la situation de communication exolingue avec et sans le son. Comment les enfants cherchent-ils à résoudre le problème de communication ?

Les réponses des enfants confirment l'hypothèse selon laquelle l'apprentissage d'une langue supplémentaire à l'école (LLE) permet aux enfants de développer en moyenne une conscience métacommunicative accrue par rapport aux enfants sans cette expérience (nLLE).

Les enfants LLE interprètent le problème de communication plus facilement dans les deux versions du film. Ils ont aussi plus de facilité à résoudre le problème posé par une absence d'indices linguistiques au sens étroit du terme.

- Quelle que soit la version, les enfants LLE sont plus enclins à répondre à l'acteur.

- Ils ont, en moyenne, plus tendance à chercher la signification du message à travers les différents indices de contextualisation associés à l'échange, (le verre, l'eau, les gestes), que les enfants nLLE.

- Ils dissocient les différentes notions, (version silencieuse et version en langue étrangère), plus facilement que les enfants nLLE.

Ainsi, on peut dire que les expériences présentes ou passées d'apprentissage d'une nouvelle langue augmentent les performances des enfants exposés à des situations de communication exolingue extrême telles que les situations analysées dans l'étude présente. L'une des raisons

de cette évolution semble liée à une meilleure conscience de la situation de communication qui pourrait aider l'enfant à comprendre le message transmis au-delà de la communication verbale.

Je propose que l'implication de LLE dans l'apprentissage des enfants permet à ces enfants d'être mieux capables que les enfants sans cette expérience (nLLE) d'exclure des indices contextuels non-pertinents tels que l'absence de son ou la langue inconnue. Cette attention préférentielle portée aux indices interprétables pourrait leur permettre de gérer ces situations de communication interpersonnelle avec plus de facilité. En résumé, les résultats de cette première étude confirment l'hypothèse selon laquelle l'expérience d'apprentissage de la langue étrangère augmente la compréhension que les enfants ont de la situation de communication exolingue.

Chapitre 3

Effect of learning a new language on the willingness to communicate. *Toegepaste Taalwetenschap in Artikelen*, 81, 31-40.

Ayant exploré la manière dont les enfants perçoivent la situation de communication exolingue, j'ai cherché à cerner les intentions de communication des enfants ou l'absence d'une telle intention lors d'une exposition à des situations de communication exolingue, l'idée étant d'éprouver l'hétérogénéité des groupes d'enfants plurilingues. L'intention de communication des enfants est cruciale lors d'une situation de communication exolingue. Il s'agit moins d'exprimer un fait, par exemple, 'je veux te dire que...' mais plutôt, d'exprimer une volonté d'entrer en communication avec quelqu'un, c'est-à-dire sous la forme de 'je voudrais communiquer avec toi.'

J'ai confronté les enfants avec une situation de communication exolingue extrême et imaginaire. Je leur ai demandé :

'Tu es dans un parc et tu veux jouer avec un enfant qui ne parle pas les mêmes langues que toi. Qu'est ce que tu vas faire ?'

Le succès ou l'échec de l'interaction est déterminé par le niveau de détermination de l'enfant dans son désir de communiquer. C'est-à-dire que le fait de considérer l'intention de communiquer de l'enfant

positivement ou négativement dépend de la décision de l'enfant de s'engager ou non dans l'interaction à l'issue de l'échange imaginaire.

J'ai d'abord émis l'hypothèse selon laquelle les enfants bilingues présenteraient une intention de communication plus forte que les enfants monolingues, suivant ainsi les résultats des études publiées sur la compétence de communication des enfants bilingues. J'ai analysé les résultats et j'ai comparé les réactions des enfants bilingues à celles des enfants monolingues.

Dans un deuxième temps, conformément aux résultats obtenus lors de la première étude, j'ai émis l'hypothèse selon laquelle la conscience métacommunicative accrue des enfants LLE engendrerait une intention plus ferme de communication chez les enfants LLE que chez les enfants nLLE. J'ai donc comparé les réactions des enfants LLE à celles des enfants nLLE.

Étonnamment, aucune différence n'est apparue entre les réponses des groupes d'enfants monolingues et bilingues. Ce résultat pourrait signifier qu'en ce qui concerne l'intention de communiquer en situation de communication exolingue extrême, le bilinguisme des enfants ne leur confère pas un avantage plus grand que le monolinguisme.

En revanche, la comparaison des enfants LLE et des enfants nLLE a montré que les enfants LLE étaient plus enclins à communiquer que les enfants nLLE, ne serait-ce que dans le cadre de la recherche présente.

Ainsi, il apparaît que la présence ou l'absence de l'expérience d'apprentissage explicite d'une langue étrangère à un âge où l'enfant a conscience de son apprentissage est plus pertinente lors de la confrontation à une situation de communication exolingue extrême que le bilinguisme ou le monolinguisme des enfants.

Chapitre 4

How foreign language learning can affect strategic competence in young children. *The International Journal of Bilingualism*. Sous presse.

Dans le chapitre 4, les réponses des enfants à la même question sont observées d'un point de vue stratégique. Les enfants LLE ayant montré une intention de communication accrue dans cette situation seront-ils aussi plus conscients des stratégies de communication à leur

disposition que leur pairs nLLE ? En d'autres termes, jusqu'à quel point LLE est-il un facteur d'influence de la compétence stratégique ?

Les définitions diverses de la métacognition incluent toutes, les notions de connaissance, conscience *et* contrôle des stratégies (voir par exemple Baird, 1990; Biggs & Moore, 1993). J'ai donc examiné l'effet de LLE sur la diversification des choix stratégiques des enfants pour résoudre la situation de communication exolingue imaginaire.

Pour chaque réponse des critères ont été définis pour classer les stratégies utilisées par les enfants. Toute démarche allant dans le sens de la résolution du problème posé par la communication est considérée comme stratégique qu'elle soit pertinente ou non. Ainsi, les processus intentionnels engagés pour contrôler l'échange imaginaire sont tous considérés comme étant une indication de la présence de la compétence stratégique de l'enfant. Le niveau de compétence stratégique de chaque enfant est évalué en considérant les stratégies que l'enfant pense employer pour réagir.

Sur la base des résultats des études présentées dans les chapitres 2 et 3, j'ai proposé encore une fois, que la présence ou l'absence d'une LLE pourrait constituer un facteur pertinent d'influence sur le développement et l'accessibilité à la compétence stratégique.

Neuf stratégies ont été retenues parmi l'ensemble des stratégies repérées chez des apprenants adultes et dépendant de quatre grandes catégories : métacognitives, affectives, socio-interactives et cognitives, définies par Oxford (2008 :52). Parmi les neuf stratégies retenues, des critères précis ont été attribués de manière à éviter l'ambiguïté en ce qui concerne le classement.

Ces neuf stratégies, présentées plus haut, sont l'attention dirigée, le contrôle des émotions, l'anticipation, le mime, la coopération, le changement de code, l'imitation, la clarification, et la demande d'assistance.

Cette fois encore, les résultats de l'étude montrent que LLE est un facteur majeur en ce qui concerne le développement de la conscience métacommunicative des enfants plurilingues, en particulier par le développement de la compétence stratégique des enfants confrontés à des situations de communication exolingue extrêmes imaginaires.

- Les enfants LLE montrent un meilleur contrôle de ces situations par les stratégies.

- Ils montrent aussi que dans cette même situation, la compétence stratégique dépend plus de LLE que du bilinguisme en soi.

Ces résultats montrent que tous les enfants, enfants bilingues compris, pourraient bénéficier de l'expérience consciente d'apprentissage d'une langue étrangère à un âge leur permettant de prendre conscience de cet apprentissage.

Chapitre 5

Speaker, Hearer and External orientations: the influence of the context of acquisition and age on the strategic competence.

Article soumis.

L'examen des résultats rassemblés montre que LLE est, au moins en partie, facteur de développement de la conscience métacommunicative des enfants, comme les analyses de la perception de la communication exolingue, de l'intention de communication et des stratégies évoquées l'ont montré.

Pourtant toutes les questions ne sont pas résolues. Deux questions en particulier, sont apparues:

1. LLE semble avoir un effet sur certaines stratégies mais pas sur toutes. Par exemple, une différence claire entre les groupes LLE et nLLE est observée pour certaines stratégies à l'avantage du groupe LLE alors que pour d'autres stratégies, aucune différence n'apparaît, par exemple en ce qui concerne la stratégie de coopération. La question se pose alors de savoir si l'identification d'un modèle cohérent d'utilisation des stratégies est possible en ce qui concerne LLE.

2. La deuxième question concerne l'effet de l'âge des enfants sur l'utilisation des stratégies. Est-il possible que les différentes stratégies aient été affectées différemment suivant l'âge des enfants, ce qui pourrait indiquer un modèle de développement de la conscience métacognitive ?

Pour répondre à ces questions, l'analyse des stratégies a été étendue pour examiner deux hypothèses :

1. Afin d'explorer la piste d'un modèle cohérent d'utilisation des stratégies, j'ai émis l'hypothèse selon laquelle les stratégies pourraient se grouper en un nombre limité de clusters.

En d'autres termes, j'ai émis l'hypothèse selon laquelle l'identification des stratégies énoncées ensemble par chacun des enfants pourrait présenter un nombre inférieur de stratégies, indiquant par là même l'identification de modèles d'utilisation des stratégies.

2. Étant donné le développement cognitif rapide des jeunes enfants, j'ai aussi émis l'hypothèse selon laquelle, en dehors de LLE, l'âge pourrait affecter l'utilisation des stratégies différemment.

J'ai réanalysé les stratégies proposées par les enfants pour résoudre le problème du parc :

'Imagine, tu es dans un parc et tu veux jouer avec un enfant qui ne parle pas les mêmes langues que toi. Qu'est ce que tu vas faire ?'

Les résultats de cette étude confirment les deux hypothèses :

1. A l'aide d'une analyse factorielle des stratégies décrites au chapitre quatre, un lien clair est apparu entre les stratégies se groupant autour de trois facteurs. La nature des stratégies regroupées dans chacun des groupes m'a permis d'identifier trois orientations différentes à l'intérieur du processus de communication. En d'autres termes, j'ai interprété l'apparition de ces trois groupes de stratégies comme reflétant des orientations particulières des enfants sur la base desquelles ces enfants ont tenté de planifier leur intervention malgré le problème posé par la situation de communication exolingue extrême. Les groupes formés par les stratégies m'ont semblé dénoter trois orientations différentes selon les fonctions que les stratégies regroupées semblent jouer dans le processus de communication interpersonnelle.

- *Une orientation vers la parole*
- *Une orientation vers l'écoute*
- *Une orientation vers l'extérieur*

L'orientation vers la parole est constituée par quatre stratégies :

1. l'anticipation (l'enfant élabore un plan d'action),
2. l'attention dirigée (l'enfant se concentre sur un indice sémiotique (porteur de sens) pour tenter de s'ajuster),
3. le contrôle des émotions (l'enfant cherche à contrôler positivement ses émotions sans avoir peur de manifester une intention de communiquer)
4. le mime.

Les enfants étant principalement orientés vers la parole planifient activement leur propre intervention dans l'échange.

L'orientation vers l'écoute inclut trois stratégies. Les stratégies

1. de coopération (l'enfant propose une action explicite dans le but de communiquer),
2. de changement de code (l'enfant propose une autre langue pour communiquer),
3. d'imitation, (l'enfant cherche à imiter son interlocuteur).

Ces trois stratégies sont orientées vers la compréhension de l'interlocuteur. Par exemple, l'enfant qui est orienté vers l'écoute est plus enclin à changer de langue de manière à pouvoir s'ajuster selon celle de son interlocuteur.

L'orientation vers l'extérieur est composée de deux stratégies. Les stratégies de :

1. clarification (l'enfant tâche d'obtenir plus d'informations en demandant des explications supplémentaires),
2. demande d'assistance, (l'enfant demande de l'aide à l'extérieur de la situation d'interaction).

Les enfants qui sont plus orientés vers l'extérieur ont tendance à s'appuyer sur l'aide de personnes extérieures à l'échange.

2. En réponse à la deuxième hypothèse, d'une part, les trois différentes orientations apparaissent différemment affectées par l'âge des enfants au moment de l'enquête.

On constate une augmentation avec l'âge des orientations *vers la parole* et *vers l'extérieur*.

En revanche, on constate une diminution de l'orientation *vers l'écoute*.

D'autre part, l'influence de LLE sur la compétence stratégique est confirmée mais seulement en ce qui concerne l'orientation *vers la parole*.

Chapitre 6

The relationship between perceived communication, willingness to communicate, strategic competence and cognitive orientations.

Article en preparation.

En conclusion, les résultats de cette dernière étude confirment et approfondissent les résultats décrits aux chapitres 1 à 4. Ils suggèrent que la compétence stratégique peut être sujette à des modèles de développement et que le recours à ces modèles est susceptible d'augmenter ou de diminuer en fonction d'un ensemble de facteurs.

Les données présentées dans cette thèse mettent en avant l'influence de deux de ces facteurs, c'est-à-dire l'âge et LLE.

Les résultats des quatre articles confirment l'hypothèse principale qui propose que l'expérience d'apprentissage d'une langue nouvelle à un âge où les enfants peuvent avoir conscience de cet apprentissage a un effet positif et pertinent sur la conscience métacognitive des enfants. Il confirme l'idée selon laquelle LLE joue un rôle plus important que le bilinguisme en soi dans le cadre de l'étude présente et peut donc être un facteur important d'hétérogénéité des groupes plurilingues.

Implications

Ainsi que l'ont proposé de nombreux chercheurs, l'identification de facteurs qui influencent la conscience métacognitive des enfants est importante (Fisher, 1998). La conscience métacognitive est considérée comme un élément essentiel de développement des capacités d'apprentissage.

Définie en tant que capacité à planifier et à contrôler les processus réflexifs, la métacognition aide l'enfant à prendre le contrôle de l'organisation de son propre apprentissage. Le développement de la conscience métacognitive par l'amélioration de la conscience métalinguistique, par exemple, pourrait permettre de distinguer un apprenant novice d'un apprenant expert (McLaughlin & Nayak, 1989; Malakoff, 1992; Cook, 1993; Jessner, 1999; Herdina & Jessner, 2002). Les résultats présentés dans cette thèse suggèrent fortement que LLE est l'un de ces facteurs d'amélioration de la métacognition. Il confère une meilleure sensibilisation des enfants plurilingues à la métacommunication, en particulier par le biais d'une intention de communication accrue dans des situations de communication exolingues, ainsi qu'une compétence stratégique plus développée.

Le facteur de LLE a été conçu à partir du rôle présumé de l'expérience consciente d'apprentissage d'une langue nouvelle, par opposition à l'acquisition simultanée d'une ou de plusieurs langues. Les quatre études qui constituent cette thèse montrent que lorsque l'exposition à une langue nouvelle survient à un âge et dans un contexte où l'enfant est capable de réfléchir à la situation d'apprentissage, cet enseignement peut améliorer la prise de conscience métacognitive de l'enfant. Comme le montrent les résultats décrits au chapitre 4, cet effet de LLE est associé à une plus grande confiance et une attitude plus positive à l'égard de la situation exolingue. En revanche, les enfants nLLE sont moins susceptibles de développer une expérience positive dans les situations exolingues. Ils sont plus enclins à renoncer à l'échange et sont, en moyenne, moins confiants que les enfants LLE à l'égard de leurs propres capacités à traiter le problème de communication posé par l'absence de langue commune. Compte tenu de ces observations, je propose que LLE soit considéré comme l'un des facteurs qui contribuent à la construction d'une identité positive en contexte plurilingue.

LLE : Facteur contribuant à la construction d'une identité positive

Comme le montre les résultats des études présentés dans la présente thèse, l'exposition naturelle à deux langues peut ne pas suffire au développement d'une approche positive de la situation de communication exolingue. En effet, comme indiqué précédemment, lorsque les enfants prenaient la décision de ne pas conduire l'échange potentiel et imaginaire, étonnamment, cette décision était souvent accompagnée de sentiments négatifs ('je vais pleurer', 'je me sens triste', 'je suis en colère', 'je ne joue pas avec lui/elle').

Ainsi, les enfants nLLE se sont montrés plus enclins que les enfants LLE à renoncer à l'échange et donc à montrer des sentiments de frustration. Par conséquent, il est possible d'avancer que tous les enfants pourraient bénéficier d'une LLE, y compris les enfants bilingues qui ont acquis plusieurs langues dès la naissance (bilinguisme simultané). Incitant le développement de la conscience métacognitive, LLE est susceptible d'offrir aux enfants les outils appropriés pour gérer l'échange exolingue plus efficacement, par là-même augmentant les expériences d'interactions exolingues positives, et, à travers ces expériences, les incitant à développer plus de confiance en eux-mêmes.

La prise de conscience des éléments de la métacommunication permet aux enfants de réfléchir à l'existence de problèmes de communication qui sont associés à la situation de communication exolingue. Selon Vandergrift, 2006 :435), la sensibilisation métacognitive permettrait à l'individu 'à la fois une autoréflexion et un contrôle de lui-même'.

Les résultats de cette thèse confirment cette affirmation. La différence observée entre les enfants nLLE et LLE réside dans une gestion moins efficace des processus d'autoréflexion (conscience métacognitive) et d'autogestion (utilisation des stratégies) dans le cours de l'échange, les conduisant à une issue moins positive.

En revanche, la perception plus positive des enfants LLE de la situation leur permet d'orienter leur compétence stratégique vers leur interlocuteur, c'est-à-dire de puiser dans leur ressources plurilingues.

Dans ce contexte, LLE peut être considéré comme un facteur qui stimule la perception positive de situations problématiques de communication en fournissant à l'enfant à la fois des capacités d'autoréflexion et d'autogestion pour envisager l'échange d'un point de vue positif. En retour, ces expériences positives de communication peuvent contribuer à plus de confiance en soi de la part de l'apprenant.

Ce que les enfants savent de la communication

Ce que les enfants comprennent de la communication a toujours constitué une des préoccupations majeures des chercheurs désireux de modeler les aspects développementaux du comportement langagier (Hamers & Blanc, 2000). Les résultats de la présente thèse montrent que l'amélioration de la conscience métacognitive des enfants est, au moins en partie, fondée sur des expériences antérieures de succès ou d'échec dans des situations de communication exolingue. Ainsi, la sensibilisation métacognitive peut-être considérée comme un concept dynamique qui, sous l'influence d'expériences sociales, peut évoluer positivement ou négativement. Suivant le même raisonnement, on peut avancer l'idée selon laquelle les expériences exolingues associées au bilinguisme ne contribuent pas systématiquement à la construction d'une identité plurilingue positive. Comme le propose Véronique (2005), toutes les situations de communication exolingue sont composées de négociations interactives qui peuvent conduire à la coopération ou au conflit.

Les jeunes enfants exposés à plus d'une langue, qu'ils soient considérés comme bilingues simultanés ou non, sont régulièrement confrontés à des situations de communication exolingue. Pour cette raison, il est probable qu'ils aient vécu des situations pour la gestion desquelles ils ont expérimenté un développement insuffisant de leurs compétences linguistiques. Ces situations peuvent avoir été associées à des effets négatifs en ce qui concerne certains aspects de la communication interpersonnelle (voir par exemple Cummins, 2009 ; Miller, 2004). Dans ce contexte, il semble opportun d'explorer les conduites didactiques ainsi que le contexte ou les contextes optimaux qui permettraient l'élaboration d'expériences exolingues positives chez les enfants bilingues.

Le rôle du contexte et de l'orientation

L'approche didactique dans la classe de langue peut être gérée de telle manière que les enfants se voient encouragés à puiser dans leurs ressources communicatives pour faire face à la situation de communication exolingue. Grace à une aide active, ces expériences peuvent être colorées positivement.

L'accompagnement actif de l'enfant dans un contexte d'enseignement de la langue étrangère permet à l'enfant de réfléchir à la situation même de

l'apprentissage, à son propre répertoire linguistique et, à la situation exolingue de communication. Ainsi, cet enseignement génère en retour chez l'enfant un meilleur contrôle de ses émotions.

Les enfants qui ont alors accumulé suffisamment d'expériences positives de communication exolingue peuvent progressivement devenir plus enclins à réfléchir sur le caractère arbitraire d'une langue. Ainsi, au fur et à mesure, ces expériences positives sont susceptibles d'aider l'enfant à avoir plus confiance en ses propres capacités de communication.

En résumé, je propose que l'expérience d'apprentissage d'une langue nouvelle, à un âge qui lui permet de prendre conscience de son apprentissage et dans un contexte formel, contribue à la construction d'une identité plurilingue positive. Ceci corrobore l'idée selon laquelle les approches de la communication peuvent être profondément influencés par le contexte éducatif de l'apprentissage (voir par exemple Hanson, Boogaard & Herrlitz, 2003 ; Pintrich & Groot, 1990).

Conclusion

Observer les réactions des enfants lorsqu'ils sont confrontés à des situations de communication exolingue m'a donné l'opportunité de découvrir comment certains aspects de la compétence plurilingue apparaissent, et dans quelle mesure la confrontation à des situations de communication exolingues extrêmes peut affecter positivement ou négativement la construction d'une compétence plurilingue/ stratégique. En 2004, Georgiades notait qu'il pourrait être plus important d'identifier les facteurs qui aident les enfants à comprendre leurs expériences métacognitives que de débattre pour savoir si les enfants sont capables ou non de développer une conscience métacognitive. Les résultats de cette thèse ont montré comment LLE peut aider les enfants à donner un sens à leurs expériences linguistiques, leur permettant de développer en retour une conscience métacognitive accrue.

Sur la base des résultats de cette thèse, je propose que tous les enfants puissent bénéficier d'une LLE. Les avantages de LLE identifiés dans cette thèse sont aussi bien d'ordres sociaux que métacognitifs. Les enfants LLE ont une meilleure compréhension des situations de communication exolingues que les enfants nLLE (chapitre 2). Par conséquent, les enfants LLE sont mieux disposés à communiquer que les enfants nLLE (chapitre 2 et 3) et les enfants LLE ont plus facilement accès aux stratégies de communication que les enfants nLLE (chapitre 4) et en particulier, aux stratégies orientées vers la parole (chapitre 5).

En conclusion, les résultats de cette thèse apportent des informations pertinentes sur le développement métacognitif des enfants plurilingues. Ils démontrent que ce n'est pas tant le bilinguisme en soi, mais plutôt l'expérience d'apprentissage conscient d'une langue nouvelle qui stimule ce développement et contribue à la construction d'une identité positive chez les enfants plurilingues.

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**SAMENVATTING IN HET
NEDERLANDS**

**WAT KINDEREN WETEN VAN
COMMUNICATIE**

Wat kinderen weten van communicatie

In dit proefschrift heb ik de gevolgen van het aanleren van een vreemde taal op verschillende aspecten van metacognitie onderzocht.

Om dit te kunnen doen heb ik de reacties van in totaal 101 kinderen op een gestandaardiseerde test geobserveerd in drie verschillende internationale scholen; in Amsterdam, Philadelphia en Zürich. De testen bestonden uit communicatieve situaties telkens in een voor het kind onbekende taal. Een gesprek waarbij de deelnemers de taal niet op hetzelfde niveau beheersen wordt vaak 'exolingual situation of communication' genoemd. In mijn studie confronteerde ik de deelnemende kinderen dus met extreme exolinguïstische situaties van communicatie.

Metacognitie

Metacognitie, feitelijk 'de kennis over kennis' kan worden gedefinieerd als de mogelijkheid tot reflectie over het eigen leren en kennen. Een adequate metacognitie helpt het individu bij het optimaliseren van de leervaardigheden.

De leidende vraag in mijn onderzoek is of er een verschil is tussen kinderen die een vreemde taal leren vanaf de geboorte (simultaan tweetaligen) en kinderen die een vreemde taal leren op een leeftijd dat ze zich bewust kunnen zijn dat ze een nieuwe taal aan het leren zijn.

De kernhypothese van deze studie is dat de kinderen die een bewuste ervaring hebben met het leren van een vreemde taal beter presteren op verschillende aspecten van de communicatieve competentie.

LLE en nLLE

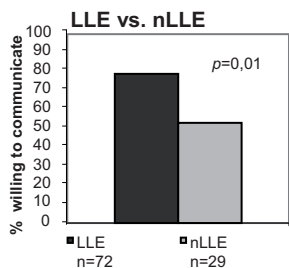
Het concept Language Learning Experience, LLE, staat centraal in dit proefschrift. Het betreft een expliciete, bewuste ervaring van het leren van een nieuwe taal vanaf het vierde levensjaar. Kinderen die vanaf hun geboorte een nieuwe taal leren hebben deze bewuste taal-leerervaring niet; je zou kunnen stellen dat ze de nieuwe taal leren zonder erbij stil te staan dat ze een taal leren.

Als kinderen ouder worden nemen hun mogelijkheden tot zelfreflectie en zelfbewustzijn snel toe. Wanneer ze in of vanaf deze ontwikkelingsfase een nieuwe taal leren kunnen ze zich veel meer bewust zijn van het leerproces zelf. Ze leren dan niet alleen de nieuwe taal, maar doen ook een bewuste taal- leerervaring op.

Bij het analyseren van de reacties van de kinderen op de exolingvistische testsituaties onderzocht ik in het bijzonder de volgende aspecten:

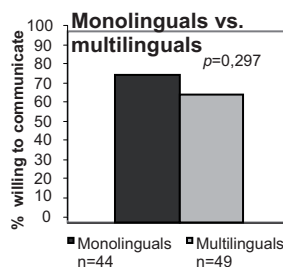
1. de perceptie die het kind heeft van de situatie
2. de bereidheid om te communiceren
3. de communicatieve strategieën die het kind tot zijn/haar beschikking heeft

Resultaten van de drie studies (hoofdstuk 2, 3, en 4) bevestigen dat een bewuste ervaring van het leren van een vreemde taal inderdaad leidt tot betere prestaties op de onderzochte gebieden (perceptie, bereidheid te communiceren en communicatieve strategieën).



Ik kon deze conclusies maken op grond van statistische analyses waarbij de groep kinderen met een bewuste taal- leerervaring (LLE: Language Learning Experience) vergeleken werd met de groep kinderen zónder deze ervaring (nLLE). In de figuur links worden de resultaten met betrekking tot de bereidheid tot communiceren getoond.

Het was ook mogelijk om de onderzoeksgroep in te delen op de meer klassieke wijze van taalstudies, namelijk in eentalige versus meertalige kinderen. Hierbij werd uiteraard geen rekening gehouden met verdeling van de LLE *versus* nLLE factor. Interessant genoeg komen uit de vergelijking van deze twee groepen geen verschillen naar voren op dezelfde onderzochte uitkomstmaten (figuur rechts, bereidheid tot communiceren).



Deze resultaten suggereren in sterke mate dat meertalige kinderen, ongeacht de leeftijd, niet beschouwd kunnen worden als een homogene groep. Het al dan niet aanwezig zijn van een bewuste taal- leerervaring (LLE) blijkt een belangrijke invloed te hebben op verschillende aspecten van de communicatieve competentie.

Omdat de kinderen in deze studie in leeftijd variëren van 4,5 tot 11 jaar was ik ook in de gelegenheid om een mogelijk effect van leeftijd te onderzoeken op de variabelen bereidheid om te communiceren en communicatieve

strategieën. Op grond van de literatuur werden negen strategieën geselecteerd: anticipatie, gerichte aandacht, controle over de gevoelens, samenwerking, mime, nabootsen, verheldering en hulp vragen, (Oxford, 1990, 2008; O'Malley & Chamot, 1990). De resultaten van de analyses laten zien dat met het ouder worden zowel LLE als nLLE kinderen meer communicatieve strategieën kunnen opnoemen en ook meer bereid zijn om te communiceren. Echter, het verschil tussen LLE en nLLE blijft over het gehele bereik van de leeftijd constant.

De vierde studie (hoofdstuk 5) had als doel om meer inzicht te krijgen in de communicatieve strategieën die de kinderen konden opnoemen als ze geconfronteerd werden met de exolinguïstische testsituatie van communicatie. De onderliggende hypothese was dat de negen onderzochte strategieën zich niet onafhankelijk van elkaar zouden gedragen maar groepeerbaar zouden zijn in een beperkt aantal clusters.

De bevindingen van deze studie laten een gedifferentieerd beeld zien. De negen strategieën konden op grond van covariatie worden opgedeeld in drie clusters. Het eerste cluster bestaat uit drie strategieën: gerichte aandacht, controle over de gevoelens, en mime. Omdat deze strategieën betrekking hebben op de spreker zelf (i.e. het kind dat getest werd) noemde ik dit cluster '*spreker oriëntatie*'. Het tweede cluster omvat drie strategieën: samenwerking, code wisseling en nabootsen. Deze drie strategieën samen kunnen worden beschouwd als een poging om de gesprekspartner te begrijpen, vandaar de titel '*toehoorder oriëntatie*'. De derde cluster, '*externe oriëntatie*' bestaat uit twee strategieën: verheldering en hulp vragen. De kinderen die voornamelijk deze externe oriëntatie laten zien, zijn geneigd om zich te richten op de interventie van iemand buiten het gesprek.

Met betrekking tot deze drie strategie- clusters kon ik opnieuw kijken naar de invloed van LLE en nLLE, en leeftijd. De verwachting was dat de drie clusters niet op dezelfde wijze zouden worden beïnvloed door deze factoren.

De resultaten lieten zien dat het effect van LLE op de strategieën zich voornamelijk afspeelt met betrekking tot het cluster *spreker oriëntatie*. De prestatie op alle clusters verandert met de leeftijd, maar op verschillende wijze: De *spreker* en de *externe oriëntaties* nemen toe met de leeftijd, terwijl de *toehoorder oriëntatie* geleidelijk afneemt met het ouder worden.

Concluderend wijzen de resultaten van deze studie uit dat LLE een relevante factor is met invloed op verschillende aspecten van de metacognitie van meertalige kinderen. Het is het aannemelijk dat er meer van dergelijke factoren bestaan die bijdragen aan de heterogeniteit van de meertalige populatie, zoals bijvoorbeeld de volgorde van de verwerving van de talen, de sociale context waarbinnen de taalverwerving plaatsvindt, de kwantiteit van de blootstelling aan de taal en de visie die het kind heeft ten aanzien van de talen.

Dit proefschrift gaat dus feitelijk maar over één van mogelijk vele factoren: dat er afhankelijk van de leeftijd waarop het kind de extra taal leert in meer of mindere mate sprake is van een bewustzijn ten aanzien van het leren van de taal. De resultaten van de studies in dit proefschrift laten zien dat in een exolinguïstische situatie deze bewuste taal- leerervaring op een significante wijze de perceptie van de situatie, de bereidheid om te communiceren en de sprekergeoriënteerde communicatieve strategieën positief beïnvloedt. Met betrekking tot deze aspecten van de metacognitie kan gesteld worden dat dat de bewuste taal- leerervaring (LLE) beschouwd moet worden als een relevantere factor dan de tweetaligheid *per se*.

Curriculum Vitae

Emmanuelle Le Pichon- Vorstman was born in Brest, France on 16 June 1972. She obtained her high school certificate (baccalauréat) in 1990 (Picardie), and she studied French literature at La Sorbonne, Paris IV, where she obtained her master's degree (maîtrise) with 'mention très bien'. In 1995 she moved to Amsterdam, the Netherlands, where she worked at the French Institute Maison Descartes. Amongst other things, she taught French as a foreign language, French literature and started a course on French as a foreign language for young children. At the same time she obtained her certificate Dutch language (NT2) at the University of Amsterdam. In 2004 she obtained a second master's degree, in linguistics, at the University of Tours, France, specializing in Second Language Acquisition. Subsequently, she initiated her PhD studies with the supervision of Prof. Castellotti (Tours, France). From November 2004 to July 2006 she lived with her family in Philadelphia, United States, where she was invited to participate in the lab meetings of the infant research group led by Prof. Hirsch-Pasek and of the sociolinguistic group headed by Prof. Pavlenko at Temple University, Philadelphia. She presented her first findings on the AAAL conference in Montreal, Canada, in 2005.

After her return to the Netherlands, Prof. de Swart and Prof. van den Bergh (Utrecht University) agreed to become involved in the completion of her PhD trajectory, which consequently became an international collaboration (co-tutelle) between the Universities of Utrecht and Tours. Emmanuelle is currently a junior lecturer in linguistics and French at Utrecht University. She is married to Jacob Vorstman, and they have four children, Isaure, Alexis, Thijs and Fleur.